

## Remedial Investigation/Feasibility Study

TC Systems Site  
1032 West Marine View Drive  
Everett, Washington



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## Sign-off Sheet

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## Abbreviations

ARAR	Applicable or Relevant and Appropriate Requirement
Arteco	Artecto, Inc.
AST	Above Ground Storage Tank
BEHP	Bis(2-ethylhex)phthalate
bgs	Below Ground Surface
CAA	Cleanup Action Objective
CAP	Cleanup Action Plan
CLARC	Cleanup Levels and Risk Calculations
cm	Centimeters
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbon
COPC	Chemicals of Potential Concern
CR	Cancer Risk
Cruise-A-Home	Cruise-A-Home Inc.
CSL	Cleanup Screening Level
CSM	Conceptual Site Model
CUL	Cleanup Level
DCA	Disproportionate Cost Analysis
DTW	Depth to Water
DWR	Dangerous Waste Regulations
EDD	Electronic Data Deliverable
E3RA	E2RA, Inc.
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ft/ft	Linear Feet per Vertical Foot
GC	Gas Chromatograph
GWET	Groundwater Treatment and Extraction
HBU	Highest Beneficial Use
IHS	Indicator Hazardous Substances
Jamison	Jamison Shingle Mill
Kane	Kane Environmental, Inc.
LCS	Laboratory Control Samples
Marpac	Marpac Products Inc.
mg/kg	milligrams per kilograms
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MTCA	Model Toxics Control Act
Norton	Norton Industries, Inc.
NOV	Notice of Violation

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NTU	Nephelometric Turbidity Units
OD	Outside Diameter
Order	Agreed Order Number 7818
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
Pilchuck	Pilchuck Shake and Lumber Company
PLP	Potentially Liable Party
Polaris	Polaris Marine Corporation
POTW	Publically Owned Treatment Works
PVC	Polyvinyl Chloride
PQL	Practical Quantification Limit
PSL	Preliminary Screening Level
QA/QC	Quality Assurance/Quality Control
RAO	Remedial Action Objective
REC	Recognized Environmental Concern
RI/FS	Remedial Investigation/Feasibility Study
RME	Reasonable Maximum Exposure
Saginaw	Saginaw Shingle Company
SAP	Sampling Analysis Plan
SMP	Soil and Groundwater Management Plan
SQS	Sediment Quality Standards
Stantec	Stantec Consulting Services Inc.
SVOC	Semi-Volatile Organic Compound
TCSystems	TCSystems, Inc.
TEQ	Toxic Equivalency
TPH	Total Petroleum Hydrocarbons
TPH-D	Total Petroleum Hydrocarbons Characterized as Diesel
TPH-G	Total Petroleum Hydrocarbons Characterized as Gasoline
TPH-O	Total Petroleum Hydrocarbons Characterized as Heavy Oil
µg/L	Micrograms per Liter
µm	Micrometer
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
WQC	Water Quality Criteria



## REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Introduction  
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### 1.0 INTRODUCTION

This Remedial Investigation/Feasibility Study (RI/FS) was conducted for the TCSystems, Inc. (TCSystems) site located at 1032 West Marine View Drive, Everett, Washington (hereafter referred to as the Site or Property; see **Figure 1** for Property Location Map and **Figure 2** for Property Plan). The Site is located in an industrial and commercial area in northwest Everett, Washington near Port Gardner Bay. The Site is listed on the Washington State Department of Ecology (Ecology) Hazardous Waste Sites List under Facility Site Number 10587741. The RI/FS was conducted in accordance with Agreed Order No. DE 7818 (Order) which requires Norton Industries, Inc. (Norton) and TCSystems to conduct an RI/FS per Washington Administrative Code (WAC) 173-340-350 and develop a Cleanup Action Plan per WAC 173-340-350 through 173-340-380.

The Information presented herein was obtained from investigations completed between 2009 and 2014.

The RI portion of the RI/FS was completed in accordance with the RI/FS Work Plan prepared by Stantec Consulting Services Inc. (Stantec), which was submitted to Ecology in January 2011 (Stantec 2011) pursuant to the Order.

Soil and groundwater quality information was obtained from the following documents submitted to Ecology:

- *Initial Remedial Investigation Technical Memorandum, 1032 West Marine View Drive, Everett, Washington*, prepared by Stantec dated November 7, 2011.

The term 'initial' is used in reference to Section F (RI Study Approach) as listed in **Appendix B** (Scope of Work) of the Order. This section of the Order states in part that:

"The potentially liable parties (PLPs) shall provide Ecology with the results of the investigation (in the form of a technical memo) so that a determination can be made with regard to whether additional investigation is required to define the full nature and extent of contamination. The information provided to Ecology should describe the analytical results of the field activities including the identification of indicator hazardous substances, the affected media, preliminary cleanup levels, the extent of contamination (plotted on maps), and any data gaps that need to be filled to define the nature and extent of contamination and toxic effects. Note that the preliminary cleanup levels may be different than the screening levels used in the RI/FS Work Plan based on a better understanding of the Conceptual Site Model (CSM) (e.g., contaminants in soil may not be impacting Site groundwater) for the Site. Additional field investigation (if necessary based on initial results) will be conducted to further define the nature and extent of contamination and toxic effects based on findings during the initial investigation."

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- *Data Gaps Amendment Report, 1032 West Marine View Drive, Everett, Washington, prepared by Stantec Consulting Services Inc. dated July 30, 2014.*

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## 2.0 SITE BACKGROUND

### 2.1 SITE DESCRIPTION

The Site consists of two tax parcels (Parcel Numbers 29051800200700 and 29051800201300), located at 1032 West Marine View Drive in Everett, Washington (**Figures 1 and 2**). The Site is located in an industrial and commercial area in northwest Everett, near Port Gardner Bay.

### 2.2 SITE DEVELOPMENT HISTORY

The Site history summary is based on information collected as part of a May 31, 2009 Phase I Environmental Site Assessment (ESA) conducted by E3RA, Inc. (E3RA) of Everett, Washington, historical Port of Everett documents, and persons knowledgeable of the Site history.

The Site is constructed on former tidelands. Historical information indicates that the original high water line was located just west of the railroad tracks currently located on the eastern side of West Marine View Drive.

A portion of the Jamison Shingle Mill (Jamison), constructed on a pier extending over the Bay, occupied the northern portion of Site from at least 1910 until the mid-1960s. The mill's drying kilns and wood storage sheds appear to have been located over the present-day Site. Jamison's office, also located on the Site, was reportedly destroyed in 1956 by a fire that also destroyed the adjacent Hulbert Mill. Jamison reportedly ceased operations at the Site in approximately 1960, and no additional information regarding Jamison's operations is available for review. Ownership of the Site passed to Saginaw Shingle Company (Saginaw) in the mid-1960s.

From at least 1935 until the mid-1960s, the properties in the vicinity of the Site were also in use as shingle mills and other lumber-related businesses, including Pacific Timber Company, Pilchuck Shake and Lumber Company (Pilchuck), Summit Mill Company, and Hulbert Mill Company. Historical Port of Everett documents indicate that in 1967, fires destroyed the Jamison and Pilchuck mills. Subsequently, rubbish and other fill material was hauled in and spread at these properties; and a low area became a dumping ground for industrial refuse from an adjacent boat-works.

The areas to the north, east, and south of the Site were filled beginning in the mid to late 1960s, and by 1967, the southern portion of the Site (south of the former shingle mill) had been filled. Although the fill material is of unknown origin, Port of Everett records indicate that unknown fill, including industrial refuse, had been dumped in the vicinity of and potentially on the Site between 1960 and 1974 (*Port of Everett Trailer Boat Launch Facility, Water Gate Boat Launch, Final Environmental Impact Statement*). In addition, Saginaw lease documents dated April 1, 1969, included a provision allowing on-Site dumping by Scott Paper Company. Part 32 of a lease for the Site between Saginaw (Lessor) and Aretco, Inc. (Lessee; Aretco, later known as

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Cruise-A-Home), stated "Lessee will not interfere with, nor shall this Lease restrict, Scott Paper Company's dumping on the said entire premises, except dumping on the demised portion thereof or on the said road."

In the mid-1970s, the Port of Everett, in conjunction with the US Army Corps of Engineers, the City of Everett, and Snohomish County, began a dredge and fill operation that eventually filled the Site. As part of the project, the area to the west of the Site was diked, filled, and completed as a boat launch facility. The dredge material from the navigation channel in Port Gardner Bay was reportedly used as fill for the boat launch project. A 1976 aerial photograph suggests that the Site was undeveloped except for a small, rectangular structure near the southern boundary. Several potential debris piles and dirt pathways were visible.

Aretco leased the Site from 1969 until 1976, when its successor, Cruise-A-Home Inc. (Cruise-A-Home), purchased the Site. Cruise-A-Home, which designed and tooled fiberglass mobile houseboats and other surface craft, constructed two buildings (Buildings B and C) between 1978 and 1980. In 1980, Buildings B and C were occupied by Marpac Products Inc. (Marpac), which made windows and railings for the marine industry.

The Site went through a series of ownership changes in the early 1980s. Cruise-A-Home went out of business in approximately 1980, and ownership of the Site and two adjacent parcels apparently passed to Polaris Marine Corporation (Polaris). In approximately 1983, Polaris went out of business, and ownership of the Site passed to William Boeing Jr. Norton purchased the Site, including both buildings and the adjacent parcels, in 1983 and continued to lease Buildings B and C to Marpac. In 1985, Marpac formed a division called Tri Coating, which performed industrial metal coating in Building B. In 1984 and 1985, Norton completed additions to Buildings B and C, bringing the buildings to their present day square footage. The Site and buildings appear unchanged from 1985 to present day.

In 1989, new 10-year leases were executed for Buildings B and C between Marpac and Norton. In 1992, Marpac's name was changed to TCSystems, which continued to operate out of Buildings B and C until May 13, 2010.

### 2.3 HISTORICAL SITE OPERATIONS AND USES

During operation, which commenced in 1980, Tri Coatings, and subsequently TCSystems, specialized in finishing metal surfaces for powder-coating primarily in support of the aviation and boating industries. Their activities included preparing metal surfaces for powder coating and applying powder coating to metal parts in accordance with customer specifications. Parts were prepared for powder coating by removing previously applied finished surfaces (by peen-blasting parts in Building C) and/or immersing parts in dip tanks (located in Building B). Powder coatings were applied in both Buildings B and C, and the powder-coated parts were then cured in drying ovens located in areas of both buildings (see **Figure 3**).

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### 2.4 PAST RELEASES

#### 2.4.1 On-Site Releases

Based on a review of Ecology records, six on-Site releases have been identified.

- December 9, 1991. A spill occurred while a chromic acid solution was being pumped from the anodizing tank to the exterior holding tank. Approximately seven gallons of solution entered the storm sewer catch basin. The storm sewer system was temporarily plugged, and water and sediment in the stormwater system was pumped out into a storage tank. Follow-up testing of water removed from the stormwater system did not detect any concentrations of chromium.
- August 4, and August 10, 1999. Two separate 200-gallon chemical spills were reported by TCSystems. No additional information was available.
- November 6, 2007 and July 8, 2008. Ecology Site inspections conducted for the Dangerous Waste Program indicated that oil was observed leaking from a compressor and draining to a stormwater catch basin.
- October 13, 2009. A release (volume and composition not specified) was reported and recorded in the Ecology Environmental Report Tracking System. The release occurred during process tank draining.

#### Waste Streams

According to Ecology records, the U.S. Environmental Protection Agency (EPA) notified Ecology that TCSystems (then known as Tri-Coatings ) had applied to be a Resource Conservation and Recovery Act hazardous waste generator on January 13, 1986. Based on dangerous waste reports submitted to Ecology, TCSystems was considered a Large Quantity Generator in 1990, 1993, 1994, 1996, 1998, 2000, 2002, 2005, and 2007 and a Small Quantity Generator in 2003 and 2008. Hazardous materials generated by TCSystems since 1995 included the following described waste streams:

- Blast media with chromium and zinc;
- Paint powder with metals;
- Waste chromic acid solution;
- Chromium hydroxide sludge;
- Spent solvent and paint solids;
- Sludge contaminated with metals;
- Paint solids with mineral spirits;
- Sludge debris with metals;
- Metal finishing rinsate;

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- Waste paint;
- Waste cleaner;
- Waste 1,1,1, trichloroethane and oil;
- Paint booth filters, tank cleaning waste;
- Waste water with chrome;
- Waste water from evaporator;
- Waste water from outside tank;
- Waste oil and gasoline;
- Strip tank waste;
- Etch tank clean waste;
- Oakite stripper; and,
- Waste paint acetone chromium.

Ecology performed eight hazardous waste & toxics reduction compliance inspections at TCSystems in March 1997, June 1998, August 1998, May 2003, August 2006, November 2007, July 2008, and August 2008. Six of the eight inspections documented violations of hazardous waste regulations.

On March 3, 2009, Ecology issued a memorandum, "Recommendation for Enforcement for TCSystems." The memo noted that fifty-nine violations of Dangerous Waste Regulations (DWRs) were observed during compliance inspections over the previous eleven years. Ecology chose to pursue formal enforcement of six of the violations:

- Illegal disposal of waste;
- Failure to properly designate waste as dangerous waste or extremely hazardous waste;
- Failure to keep containers of dangerous waste closed;
- Failure to properly identify containers of dangerous waste with the words "Hazardous Waste" or "Dangerous Waste" and/or the major risk(s) associated with the waste;
- Failure to mark containers with accumulation start date; and,
- Failure to develop and maintain a personnel training plan and training records.

TCSystems was identified as a Significant Non-Complier, as defined by the Hazardous Waste & Toxics Reduction Program. Ecology imposed a monetary penalty of \$24,000 and issued an Administrative Order for TCSystems to:

1. Reduce immediate risk to human health and the environment by properly managing and disposing of dangerous waste;
2. Make management responsible for bridging the gap of employee turnover with timely training and expedient hiring and replacement;
3. Train employees in proper waste management procedures; and
4. Demonstrate over time that employees remain vigilant and well-trained regarding dangerous waste management as demonstrated by showing that dangerous wastes are properly managed at TCSystems to prevent future repeat violations.

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### 2.4.2 Off-Site Releases Potentially Affecting the Site

- An investigation was performed at the Ameron International Leasehold (south-adjacent property) in response to potential petroleum-impacted soil and groundwater observed during the repair of a stormwater line. The stormwater line was located along the northern property boundary of the Ameron Property, adjacent to the southern boundary of the Site. On November 12, 2004, soil samples were collected from the stormwater repair excavation stockpile. Concentrations of carcinogenic polycyclic aromatic hydrocarbons (cPAHs), polychlorinated biphenyls (PCBs), zinc, and copper were reported above Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels (CULs) for unrestricted land use in two samples. At the time of soil sampling, the excavation was approximately ten feet wide and six feet deep. Groundwater was observed at approximately four feet below ground surface (bgs). On January 20, 2005, a subsurface investigation was conducted in the vicinity of the excavation to delineate the extent of affected soil and groundwater observed in November 2004. Eight soil borings were advanced to the east, west, and south of the stormwater excavation. No analytes (total petroleum hydrocarbons [TPH] as diesel, Volatile Organic Constituents [VOCs], Semi-Volatile Organic Compounds [SVOCs], PCBs, arsenic, cadmium, copper, lead, mercury, and zinc) were detected above MTCA Method A Soil CULs in samples collected. Two groundwater samples were collected and no constituents, except arsenic and Bis (2-ethylhexyl)phthalate (BEHP), were detected above MTCA Method A Groundwater CULs. The BEHP concentration may have been the result of laboratory contamination. Based on soil and groundwater sampling results, Landau concluded that the lateral extent of impacts was limited (Technical Memorandum prepared by Landau Associates, Ameron International Leasehold, Environmental Investigation of Oil Affected Area, Port of Everett, Washington, dated June 20, 2005).
- Environmental investigation at the neighboring property has continued since 2005, and a RI/FS and Clean-up Action Plan (CAP) have been completed (Landau 2014a and b). Confirmed contamination in soil includes metals (arsenic, lead, and other priority pollutant metals); PAHs; and diesel-range petroleum hydrocarbons. Groundwater impacts include metals (arsenic and other priority pollutant metals); halogenated organic compounds; and diesel-range petroleum hydrocarbons.

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### 3.0 PREVIOUS SITE ENVIRONMENTAL INVESTIGATIONS

In May 2009, E3RA performed a Phase I ESA of the Site. The ESA included a review of historical documents, environmental regulatory records, interviews with persons knowledgeable about the Site, and Site reconnaissance to determine if any Recognized Environmental Conditions (RECs) were present. The Site reconnaissance was performed on April 28, 2009. At the time of the reconnaissance, the Site was occupied by TCSystems and was reportedly in active use as a metal finishing plant. The ESA documented three RECs at the Site: 1) multiple above ground storage tanks (ASTs) on-Site; 2) a compressor oil leak between Buildings B and C; and 3) dye penetrant in contact with the concrete slab in Building B. The environmental regulatory records review documented that an adjacent site, the North Marina Ameron/Hulbert site, was listed in multiple databases and had confirmed soil, sediment, and groundwater contamination. The North Marina Ameron/Hulbert site was considered a potential REC.

Dye penetrant was observed to be leaking from application tanks in the northeast corner of Building B and in direct contact with the concrete slab. A sump cut into the concrete to collect and re-use the penetrant was also observed. The dye penetrant in contact with the floor was considered a REC. Several ASTs were observed inside and outside of the TCSystems buildings, including process dip tanks and batch tanks for wastewater processing and acid and base bulk storage. At the time of the reconnaissance, the ASTs appeared to be in good condition with no leaks observed; however, the ASTs were considered a REC. No underground storage tanks (USTs) were observed at the Site. Compressor oil from a continuing compressor leak was observed on the pavement between Buildings B and C.

In August of 2009, E3RA performed a limited Phase II ESA at the Site. The ESA was performed using a direct-push drilling rig to advance five borings to shallow depths for collection of soil and groundwater samples. Three borings (SB-1, -2 and -3) were advanced near the compressor shed in the area between buildings B and C. Locations were selected to evaluate possible impacts of oil (leaking from an air compressor) to soil and groundwater in that area. Two additional borings (SB-4 and SB-5) were advanced near the northeast corner of building B to evaluate the impacts of dye-penetrant (used inside building B) to soil and groundwater in that area (see **Figure 4**). Soil samples were analyzed for diesel- and oil-range petroleum hydrocarbons, and chromium. Groundwater samples were analyzed for diesel and oil-range petroleum hydrocarbons. Diesel-range hydrocarbons were reported at a concentration of up to 1,200 micrograms per Liter ( $\mu\text{g/L}$ ); oil-range hydrocarbons were reported at concentration up to 860  $\mu\text{g/L}$  in the groundwater sample collected from boring SB-4.

In the fall of 2009, Ecology collected a grab sample of solids accumulated in the bottom of a stormwater catch basin located on the asphalt-paved area between buildings B and C, near the area of the former wastewater treatment and utilities area of TCSystems (see **Figure 4**). Laboratory analytical data indicated that the sample contained heavy metals which included



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cadmium, chromium, copper, lead and zinc); PCB Aroclors (1248 and 1254); total petroleum hydrocarbons (in the lube-oil range); and various SVOCs including PAHs.

In October 2010, limited near-surface (0.5 to 1-foot bgs) soil sampling was conducted by Kane Environmental, Inc. (Kane) concurrent with ongoing construction activities at the Site, which included roof and stormwater conveyance maintenance and repair. The Order stipulates that "affected media encountered and managed as part of a construction activity conducted at the Site outside (i.e., not part of) the Order by the potentially liable parties (PLPs) will be treated as an independent interim action under WAC 173-340-430. On completion of any construction activity that involves disturbance of Site soil, the PLPs shall provide Ecology (within 10 days) a technical memorandum summarizing the activity; locations of any contaminated, dangerous, or hazardous materials encountered (aka, affected material); and how the affected materials were managed." Accordingly, the soil sampling was described in two separate technical memos submitted to Ecology (dated November 19 and December 15, 2010), which were subsequently combined by Stantec as Interim Action 001 (April 15, 2011). All soil samples were analyzed for VOCs by EPA Method 8260; Diesel-Range (TPH-D) and Heavy Oil-Range (TPH-O) petroleum hydrocarbons by Ecology Method NWTPH-Dx; SVOCs by EPA Method 8270, and; Total and Dissolved Metals (PP-13) by EPA Method 6020. In addition, a sample collected from an isolated area of white sandy soil noted during excavation was analyzed for pH by EPA Method 9045 and metals with EPA Method 1311 Extraction (toxicity characteristic leaching procedure). The results indicated the presence of metals (arsenic, copper, and zinc); 1-methylnaphthalene; dinitrotoluene; and, phenanthrene and carcinogenic PAHs (1 sample only) at concentrations above the preliminary screening levels (PSLs) set forth in the subsequent RI/FS Work Plan (Stantec 2011).

### 4.0 REMEDIAL INVESTIGATION ACTIVITIES

Prior to completion of the RI, Site characterization data was limited. As such, initial RI work focused on evaluating the extent to which soil and groundwater were impacted by documented on- and off-Site releases. For those locations where soil and/or groundwater samples were impacted above PSLs, transport mechanisms were evaluated in accordance with the Conceptual Site Model (CSM) for the location, media, and contaminant in question. The scope of the initial phase of the RI field work was determined largely by the requirements in Exhibit B of the Order. Additional sampling requirements were based on the initial results of the RI (presented first as a technical memorandum to Ecology). Additional field investigation was conducted to further define the nature and extent of contamination based on data gaps noted following the initial investigation.

#### 4.1 DEVELOPMENT OF PRELIMINARY SCREENING LEVELS

PSLs were developed for soil and groundwater as part of the RI/FS Work Plan (Stantec 2011) to assess significance of analytical results and to guide the need and direction of further assessment. Potentially complete exposure pathways and receptors based on then-current and likely future Site uses were evaluated to develop PSLs for Site soil and groundwater. In general, the Method B CULs for unrestricted use obtained from Ecology's April 1, 2011 Cleanup Levels and Risk Calculations (CLARC) database were used as Site soil and groundwater PSLs because Site uses included commercial activities and public access that did not comply with MTCA criteria for industrial sites [WAC 173-340-745(1)(a)]. However, Method A CULs were applied to certain constituents for which Method B CULs had not been established (e.g., lead and petroleum hydrocarbons), and for constituents with unique considerations addressed by Ecology in development of the Method A values (e.g., arsenic). PSLs are presented by chemical and medium in **Tables 1** through **14**.

The following section discusses the applicable regulatory benchmarks for soil, and groundwater, which were used to determine the PSLs at the Site.

##### 4.1.1 Applicable Regulatory Benchmarks for PSL Development

Soil – The PSLs for soil were determined by selecting the most protective levels for each of the following criteria (see **Tables 1** through **7**):

- Human Health Direct Contact – PSLs were developed based on protection of human health direct contact with soil using MTCA Method B (340-740(3)(b)(i)). MTCA Method B PSLs for direct contact are based on an excess cancer risk (CR) level of  $1 \times 10^{-6}$  or a hazard quotient of 1 (the lower value was selected as the PSL). Note that in the absence of MTCA Method B values, MTCA Method A values (340-740 (2)(B)(II)) were used for

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certain chemicals (e.g., arsenic). Finally, published background concentrations were considered.

- Protection of Groundwater – Soil values protective of groundwater as marine surface water were based upon Ecology's 3-phase model per WAC 173-340-747(2) using default equation values. Because groundwater is not a current or likely future source of drinking water and because it potentially discharges to marine surface water, groundwater PSLs were developed based on marine surface water cleanup levels protective of human health and aquatic organisms in accordance with WAC 173-340-730. However, in the absence of an applicable marine surface water cleanup level, MTCA Method B potable groundwater PSLs were used for screening. The 3-phase model provides a conservative estimate of the concentration of a contaminant in soil that is protective of groundwater.

To develop a single preliminary soil cleanup level for each constituent, the lowest protective criterion was selected as the PSL, with the following exception:

- Soil screening levels may be adjusted to be no less than the practical quantitation limit (PQL) in accordance with WAC 173-340-730(5)(c) and/or no less than natural background levels in accordance with WAC 173-340-740(5)(c). The PQL (identified as the method reporting limit in the screening level tables) and background concentrations for metals, based on Puget Sound 90th percentile values (Natural Background Soil Metals Concentrations in Washington State, Ecology Publication 94-115, 1994), were compared to the soil PSLs protective of human direct contact and groundwater.

Groundwater –

- Groundwater at the Site is not considered potable due to the proximity of the Site to the marine environment (WAC 173-340-720(2)(b)(ii)) and a City of Everett ordinance requiring hook-up to the municipal water supply.
- The proximity of the Site to the marine environment and the potential groundwater to surface water exposure pathway indicates that surface water standards are considered applicable to the Site. As such, the PSLs for groundwater were determined by selecting the most restrictive benchmark for each of the following criteria (see **Tables 8** through **14**):
  - Surface water standards as described in MTCA Method A (WAC 173-340-730(2)) and Method B (WAC 173-340-730(3)).
  - Potable drinking water standards (if an applicable surface water standard was not available) as described in MTCA Method A (WAC 173-340-720(3)) and Method B (WAC 173-340-720(4)).

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PSLs were established to serve as initial cleanup levels but may be refined during the remedial investigation in accordance with WAC 173-340-740 (see Sections 6.2.1 and 8 of the RI). Clean up levels also are used as the basis for selecting remediation levels which may be used during development of the feasibility study in accordance with WAC 173-340-355 *et seq.*

### 4.2 SOIL INVESTIGATION

The initial RI soil investigation (April 25 to May 6, 2011) consisted of collecting soil samples from 17 direct-push soil borings (TC-SB-1 through TC-SB-17). Boring locations were selected based on knowledge of current and historical Site operations, reports of previous chemical release(s) and/or observations of potentially impacted media. Results of the investigation were summarized in a memo to Ecology titled *Initial Remedial Investigation Technical Memorandum* dated November 7, 2011. Ecology reviewed the memo and identified data gaps. Stantec prepared a work plan to address the Ecology-identified data gaps (Stantec 2012), which included the installation of 5 soil borings (TC-SB-22 through TC-SB-26 in March 2014). In November 2015, an additional 5 direct-push soil borings were advanced. The purpose of the borings was to further delineate the vertical extent of impacts and to evaluate site-specific conditions to verify the applicability of Ecology's 3-phase model. These borings were labeled TC-MW-9RV, TC-MW-6V, TC-SB-8V, TC-SB-12V and TC-MW-7V. Refer to **Figure 11** for boring locations.

#### 4.2.1 Soil Sample Collection

Soil borings were advanced to desired depths using a truck-mounted hollow-stem auger at monitoring well locations or a Geoprobe™ drill rig for other investigatory borings. Samples were collected using a 5-foot long, continuous-core, split-spoon barrel sampler. To generate sufficient volume for analysis, a 3.25-inch outside diameter (OD) Dames & Moore split-spoon was used. The spoon was removed from the boring and the plastic liner containing the soil core was cut open. Samples were collected from each boring split spoon at the approximate depths or depth intervals<sup>1</sup> presented in **Tables 18** through **24**. In addition, samples were collected at locations where field screening methods (see below) indicated sampling was appropriate.

Soil sample collection was conducted in accordance with the quality assurance (QA) procedures described in the RI/FS Work Plan Sampling and Analysis Plan (SAP) (Stantec 2011).

#### 4.2.2 Soil Sample Field Screening

The soil classification for each sample was evaluated by Stantec field staff and field-screened for evidence of contamination and noted on boring logs (see **Appendix B**). Field screening

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<sup>1</sup> Because asphalt or concrete pavement was present at the sampling locations, sample depths were modified so that the first sample depth interval was directly beneath the surface pavement (or concrete) and underlying base-course material. The adjustments to the depths were noted in the field notes. Subsequent intervals were adjusted where required.

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included visual inspection for staining and other evidence of contamination (e.g., sheen), noting presence of odors and measurement using a P.I.D. Soil sample field screening was conducted in accordance with the QA procedures described in SAP.

### 4.2.3 Chemical Analysis of Soil Samples

Soil sample laboratory analysis was selected based on the following protocol which is consistent with the SAP:

- The most shallow sample interval at each boring location was analyzed for priority pollutant metals (antimony, arsenic, barium, cadmium, chromium (total), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) using EPA Method 6020/7470; SVOCs, including PAHs by EPA Method 8270; VOCs by EPA Method 8260B; and TPH-D and TPH-O by NWTPH-Dx.
- Any sample displaying visual evidence of abrasive grit (e.g. blasting material) was submitted for organotin (tributyltin ion) analysis by EPA Method 8270D.
- If the TPH-Dx results indicated detections in the oil range, PCB analysis by EPA Method 8082 was added to the follow-on analyses for that soil interval. In addition, if the gas chromatograph (GC) indicated detections in the gasoline range, TPH-Gx was added to the analyses for that interval.
- If contaminants were detected in the shallow sample interval at concentrations above the PSLs, the next deepest sample was analyzed for the constituents that were reported above the PSLs.

## 4.3 GROUNDWATER INVESTIGATION

Between 2011 and 2014, twenty-one monitoring wells were installed at the Site (see **Figure 5** for well locations). In April and May 2011, as part of the initial Site-wide characterization, soil borings TC-MW-1 through TC-MW-17 were completed as groundwater monitoring wells. In October 2012, groundwater monitoring wells TC-MW-18 and TC-MW-19 were installed to investigate groundwater quality in off-Site, upgradient locations. In March 2014, monitoring well TC-MW-20 was installed to investigate groundwater adjacent to the property line in the southeast portion of the Site. Monitoring well TC-MW-21 was installed in the northwest portion of the Site to explore potential off-site migration of contaminants to the northwest. In addition, well TC-MW-9R was installed in March 2014 to replace former TC-MW-9, which was destroyed during stormwater line replacement in the southwest portion of the Site.

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### 4.3.1 Monitoring Well Installation

Two-inch monitoring wells were installed at each location. The wells were constructed in accordance with requirements contained in Washington State Minimum Standards for Construction and Maintenance of Wells (WAC 173-160). Monitoring well construction consisted of two-inch, schedule 40 polyvinyl chloride (PVC) sleeves installed to depths ranging from 13 to 15 feet bgs (approximately 10 feet below static groundwater elevation). The monitoring wells were screened (0.010-inch slotted) to allow for tidal elevation change. Each well was completed with a 10-inch diameter monitoring well filter pack of #10 sand surrounding the well casing and sealed using hydrated in-place bentonite granules. Each well was capped with an 8-inch diameter, flush-mounted monument casing secured by two 9/16 inch bolts. Inside each monument, the top of the monitoring well was further secured by a thread-tightened compression cap. The Ecology-issued unique well identification number tag was fastened to the interior of the well monument.

### 4.3.2 Monitoring Well Development and Sampling

Monitoring wells were developed after construction to remove formation material from the well casing and the filter pack prior to groundwater level measurement and sampling. Development consisted of repeatedly surging the well with a surge block and purging the well until the water ran clear, or a minimum five well casing volumes was purged. During development, the purged groundwater was monitored for the following field parameters:

- pH
- Conductivity
- Temperature
- Turbidity
- Color
- Other observations

During development, turbidity did not decrease to the 5 Nephelometric Turbidity Units (NTUs) set as a benchmark in the RI/FS Work Plan; as discussed below, adjustments were made in the field and laboratory to account for the high turbidity. Well development activities were recorded on Well Development logs (**Appendix C**).

Prior to each sampling event, each well was purged of groundwater using a centrifugal pump and disposable tubing. To minimize potential tidal influences on groundwater samples, sampling was conducted at a time that corresponds to low-tide conditions as prescribed by Ecology. Low tide was determined using predictions for Port Gardner Bay available at <http://tidesandcurrents.noaa.gov>. All groundwater samples were collected using low-flow techniques. Using a peristaltic pump, the groundwater was pumped at a rate at which there was little or no water level drawdown, or the water column remained stable and field parameters stabilized. The purge water was collected and temporarily stored in properly-labeled

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55-gallon drums and sealed for future disposal. The drums were disposed of by a licensed soil and groundwater disposal contractor.

Four groundwater sampling events were conducted: May 3-5, 2011; July 19-20, 2012; February 5, 2013; and March 13, 2014. During the May 2011 sampling event, samples were collected from 17 wells (TC-MW-1 through TC-MW-17) and analyzed for total metals, VOCs, SVOCs, PAHs, TPH, and PCBs. The groundwater collected during this sampling event was notably turbid (>10 NTUs). In order to reduce the effects of turbidity, the groundwater samples were centrifuged at the laboratory when average turbidity was greater than 10 NTUs.

The July 2012 sampling event consisted of sampling and analysis of groundwater collected from wells TC-MW-1 through TC-MW-17, with revisions to analysis based on a review of previous results and interactions with Ecology (Stantec 2012 and **Tables 15** and **16**). Notably, metals analysis for samples collected from TC-MW-1 through TC-MW-17 included only arsenic and copper (both total and dissolved). Groundwater samples for dissolved metals analysis were field filtered through a 45-micrometer ( $\mu\text{m}$ ) filter for this and all subsequent groundwater monitoring events to reduce turbidity and obtain non-biased metals results that could result from analysis of samples containing suspended material.

Two additional rounds of sampling (February 15, 2013 and March 13, 2014) were subsequently conducted to assess temporal variability of chemical concentrations. Two additional wells were installed near the eastern property line (TC-MW-18 and TC-MW-19) to assess groundwater quality at upgradient locations. The February 2013 groundwater monitoring event consisted of sampling and analyzing samples from monitoring wells TC-MW-1 through TC-MW-19 for arsenic and copper; the only metals selected for analysis at all wells. Samples were also submitted for PAH analysis only for samples collected from TC-MW-7, TC-MW-14, TC-MW-17, and TC-MW-18. In addition, groundwater samples were collected from selected monitoring wells in February 2011 to further evaluate concentrations of BEHP, mercury, arsenic, and TPH detected during the December 2010 sampling event that appeared to be anomalous.

Groundwater samples were subsequently collected in March 2014 from well TC-MW-13 to verify the previous results, which identified an elevated concentration of oil-range hydrocarbons in this well. In addition, groundwater samples were collected from newly installed wells TC-MW-20, TC-MW-21, and TC-MW-9R. Samples collected from TC-MW-20, TC-MW-21, and TC-MW-9R were analyzed for PAHs and metals only.

Groundwater monitoring and sampling was conducted during what is typically a dry season (July, 2012) and at a time when precipitation is heavier and prolonged (February 5, 2013) to evaluate seasonal fluctuations in water table and contaminant concentrations.

Field quality control samples, including trip blanks and rinsate blanks, were collected in May 2011. Field duplicates were collected during each sampling event at the frequency specified in

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the RI/FS work plan. The results of quality assurance/quality control (QA/QC) samples were evaluated during data validation and are presented in Section 5.2.1.4 of this report.

### 4.3.3 Groundwater Level Measurements

Initial groundwater monitoring event – May 2011

Between May 2<sup>nd</sup> and 5<sup>th</sup>, 2011, Stantec conducted the initial groundwater monitoring event at the Site. This sampling event was coordinated to coincide with low tide. Depth to water (DTW) measured in the wells ranged from 3.42- to 5.30-feet below the top of casing (TOC). DTW measurements were converted to groundwater elevations, and groundwater elevation contours were generated. Groundwater flow was variable, but generally flowed in a south-southeasterly direction at a calculated horizontal gradient of approximately 0.0010 linear feet per vertical foot (ft/ft). Summarized groundwater elevation data is presented on **Table 17**, and a groundwater elevation contour map for the May 2011 groundwater monitoring event is included as **Figure 8**.

“Dry Season” Groundwater Monitoring Event – July 2012

Between July 17<sup>th</sup> and 19<sup>th</sup>, 2012, as directed by Ecology, Stantec personnel conducted a “dry season” groundwater monitoring event at the Site. This sampling event was also conducted during low tide conditions and included sampling and analysis of two additional wells: TC-MW-18 and TC-MW-19. DTW ranged from 3.56- to 5.45-feet below TOC. Groundwater elevation contours generated for this event indicate that groundwater flow was variable, but generally flowed in a south-southwesterly direction at a calculated horizontal gradient of 0.0013 ft/ft. Summarized groundwater elevation data is presented on **Table 17**, and a groundwater elevation contour map for the dry season (July 2011) groundwater monitoring event is included as **Figure 9**.

Between February 13<sup>th</sup> and 15<sup>th</sup>, 2013, as directed by Ecology, Stantec conducted a “wet season” groundwater monitoring event at the Site. This sampling event was also conducted during low tide conditions. DTW measurements in the wells ranged from 3.50- to 5.31-feet below TOC. Based on groundwater elevation contours generated for this event, groundwater flow was variable, but generally flowed in a south-southwesterly direction at a calculated horizontal gradient of 0.0013 ft/ft. Summarized groundwater elevation data is presented on **Table 17** and a groundwater elevation contour map for the wet season (February 2013) groundwater monitoring event is included as **Figure 10**.

## 4.4 SURFACE WATER AND MARINE SEDIMENT

The Scope of Work in the RI/FS work plan stated that the RI would focus on characterizing soil and groundwater at the Site. The RI/FS work plan also stated that the potential investigation of off-Site surface water and/or marine sediment would be based on results of the RI.



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Off-Site surface water and marine sediment samples have not been collected as part of the Property RI/FS. The decision not to collect these samples was based on the absence of identified impacts to surface water and marine sediments during sampling conducted as part of an RI/FS completed on the immediately adjacent property to the south – the north Marina Ameron/Hulbert Site (Landau 2014). Both properties (TCSystems and Ameron/Hulbert) drain to similar areas of surface water and sediments.

The RI/FS completed for the Ameron/Hulbert site consisted of the collection and analysis of eight sediment grab samples from the northern three-quarters of the 12<sup>th</sup> Street Marina, along the western portion of their site. Samples were collected from the upper 10 centimeters (cm) of sediment and analyzed for metals (arsenic, cadmium, chromium, copper, lead, mercury, zinc and antimony) by EPA Method 6010; SVOCs by EPA Method 8270; PCBs by EPA Method 8082 and conventional parameters using ASTM D422; TOC by EPA Method 9060A; total volatile solids by EPA Method 1680; total solids by EPA Method 160.3; ammonia by SM4500, NH3D Mod; and total sulfides by SM4500, S2-F Mod. Sediment samples collected from two stations were also analyzed for dioxins/furans by EPA Method 1613. Laboratory analysis of sediment samples reported for both organic carbon and non-organic carbon normalized results indicated that no impacts were identified above the cleanup screening levels (CSL) or sediment quality standards (SQS) criteria. Based on this, there is no evidence of sediment impacts via surface water by either the Ameron/Hulbert property or the TCSYSTEMS Site.

The Ameron-Hulbert property is impacted with similar chemicals of potential concern albeit at a greater number of locations and in some cases higher concentrations in both soil and groundwater due to its size and the type of historical operations. The quality of groundwater at the location on the Ameron Hulbert property nearest to the 12<sup>th</sup> Street Yacht Basin is monitored by sampling a series of groundwater wells (RI-MW-1 through RI-MW-5) situated along the shoreline.

Data for the shoreline wells on the Ameron-Hulbert property—which serve to monitor the assumed points of discharge to the 12<sup>th</sup> Street Yacht Basin—indicate that there are no exceedances of the surface water CULs for copper or arsenic. These non-exceedances represent the quality of groundwater flowing from both the Ameron-Hulbert property and the TCSYSTEMS Site into Puget Sound.

## 5.0 REMEDIAL INVESTIGATION RESULTS

### 5.1 ENVIRONMENTAL SETTING

#### 5.1.1 Geology

##### 5.1.1.1 Soil and Groundwater Conditions

###### 5.1.1.1.1 Area Geology

The Site lies within the Puget Lowland. The lowland is part of a regional north-south trending trough that extends from southwestern British Columbia to near Eugene, Oregon. North of Olympia, Washington, this lowland is glacially carved, with a depositional and erosional history including at least four separate glacial advances/retreats. The Puget Lowland is bounded to the west by the Olympic Mountains and to the east by the Cascade Range. The lowland is filled with glacial and non-glacial sediments consisting of interbedded gravel, sand, silt, fill, and peat lenses.

The Geologic Map of the Marysville Quadrangle, indicates that the Site is underlain by Vashon Advance Outwash. Based on Site explorations, the Site is underlain by Modified Land (fill), beach/tideflat deposits, and at depth by Vashon Advance Outwash and/or Pre-Fraser Deposits.

Vashon Advance Outwash consists of sand and gravel with local interbeds of silt and clay deposited in front of the advancing glacier. These materials are generally dense to very dense and are often found on or below relatively steep slopes along the margins of Puget Sound. Pre-Fraser Deposits typically consist of glacial and non-glacial sediments that are relatively dense. They range in composition from silt with clay to silty-sand with gravel.

Modified Land in this area includes fill placed from between (approximately) the early to mid-1900's and the mid-1970's. These materials include dredged debris and beach deposits, as well as multiple types of imported fill, site debris, and existing wood piles that have rotted in place. These materials are generally loose/soft and vary widely in composition.

###### 5.1.1.1.2 Site-Specific Soil Types

Based on the materials encountered in the Site borings, we interpret the lowest encountered soil unit to consist of native tidal flat sediments and locally, advance outwash. The tidal flat soils consist of a silty-sand to sandy silt with variable amounts of organic material, wood debris, and shells. The advance outwash consists of a fine to medium-grained soil with trace amounts of gravel and silt.

Native soils were encountered in the boring within Building B (TC-SB-17) and in several borings east and northeast of this area. As described below, much of the hydraulically-placed fill is similar in composition and appearance to these materials.

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Hydraulic dredge fill was placed at the Site at multiple times in the last approximately 100 years. The dredged fill consists of poorly-graded sand to silty sand and sandy silt with variable amounts of shell pieces and wood fragments. Dredge fill locally occurs above and below areas of imported fill materials.

A report prepared by Pinnacle Geosciences for the adjacent Ameron/Hulbert site suggests that the area of the Site extending approximately 400 feet west of the mainline rail line was filled with dredge materials from the late-1930s to the mid-1940s. In the mid-1960s, the Site was partially filled. In approximately 1973, a large amount of dredge fill was placed within the Site, although the Site grades did not achieve current elevations until at least mid-1977 (Pinnacle 2010). Between the 1960s (or earlier) and 1973, a drainage channel extended through the Site nearly to Marine View Drive. Prior to this time, the property to the south was at least 10 feet higher in elevation than the Site.

Near-surface fill materials at the Site include imported soils used to stabilize the upper elevations of the Site to allow for placement of asphalt and concrete paving and building construction. In general, the Site is paved with several inches of asphalt over variable amounts of crushed rock. Sandy silt and silty sand underlie the crushed rock at many locations within the Property.

Other fill materials were observed in many of the borings drilled at the Site. Local void spaces were encountered below the building slabs at several locations. Areas of decomposed concrete were encountered up to seven feet below existing Site grades in some areas. Other fill materials include large areas of sawdust, wood pulp, metal debris, and brick/construction material debris. These materials appear to be consistent with debris associated with historical Property use.

The transition between differing types of fill placement was difficult to ascertain in many of the borings. The primary indicators for hydraulic dredge fill included the presence of wood/roots, shells, and locally a white gritty material, consistent with eroded shells. Site-generated fill was generally indicated by the presence of metal slag, large woody debris, brick, concrete, and asphalt pieces. Previously existing woodpiles are included in this designation.

The geologic cross sections (**Figures 6 and 7**) depict the estimated locations and contacts between the various soil units and fill types. It is likely that areas of dredge fill would include older Site use debris and woodpiles, further complicating a final determination of fill sources within the Site.

### 5.1.1.1.3 Groundwater

At each phase of the RI, groundwater was observed in all of the borings and ranged in depth from 5 to 12 feet below the existing Site grades. We interpret the groundwater at the Site to be unconfined and primarily influenced by tidal fluctuations as well as seasonal precipitation and surface water infiltration into the near-surface soils.

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The groundwater gradient generally slopes toward the south-southwest; however, due to the heterogeneity and variable density of local fill soils, the groundwater gradient is highly variable across the Site. Underlying areas of more compacted, fine-grained fill materials coupled with tidal fluctuations, likely results in inconsistent groundwater gradients and flow direction.

## 5.2 QUALITY ASSURANCE/QUALITY CONTROL

### 5.2.1 Quality Assurance

Soil and groundwater samples were analyzed and validated in accordance with the QA procedures described in the RI/FS Work Plan SAP. QA for the project included maintaining a chain-of-custody record for all samples submitted to the project laboratory, proper storage of samples, equipment decontamination, and analysis of QC samples. Analytical data were validated to determine the acceptability of the data for use in adequately characterizing soil and groundwater.

#### 5.2.1.1 Sample Containers, Preservation and Storage

Soil and groundwater samples submitted to the analytical laboratory for analysis were collected in the appropriate sample containers provided by the analytical laboratory. The samples were preserved as required by the analytical method. The time between sample collection, extraction, and analysis was determined to be within analytical method specified holding times for all analyses associated with the soil and groundwater samples, except as noted in Section 5.2.1.5.

#### 5.2.1.2 Sample Custody

Sample custody was documented by means of a chain-of-custody record, which was initially completed by the sampler and, thereafter, signed by those individuals who accepted custody of the sample. All samples shipped to a laboratory were placed in coolers; the coolers secured with signed custody seals and taped shut with strapping tape. Laboratory narrative included within the data packages did not identify deficiencies in quality control procedures.

#### 5.2.1.3 Equipment Decontamination

During monitoring well installation using a hollow stem auger rig, auger flights and split spoons were steam-cleaned immediately prior to and after each boring to minimize the potential for cross contamination. All other reusable equipment was decontaminated prior to and after contact with sample media as follows:

- Loose media were wiped or brushed away with a disposable paper towel;
- An alcohol rinse was used if visible product was observed;
- A tap water rinse with scrub-brush;
- Alconox scrub;

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- Tap water rinse; and,
- Deionized water rinse.

To assess effectiveness of decontamination procedures, one equipment rinsate sample per day was collected by pouring deionized water over the equipment. The water was collected, marked as rinsate, and submitted to the project laboratory for analysis.

### 5.2.1.4 Quality Control Samples

Laboratory QC samples included matrix spike (MS), matrix spike duplicate (MSD), method blanks, and laboratory control samples (LCS). Note that MSDs were not specifically collected, but were occasionally run by the lab for internal QA purposes. These samples were analyzed at the frequency described in the SAP.

Field duplicates were collected at the frequency specified in the SAP and submitted blind (e.g., DUP-x) to the project laboratory. Following receipt of analytical reports, duplicates were assigned to the primary sample identifier and presented in data tables. Precision measured as the relative percent difference between primary and duplicate sample results was variable for samples with detections in both primary and duplicate samples and ranged from approximately 7% (TC-MW-12-1'/Dup-3) to 70% (TC-MW-4-1'/Dup-2).

Additional field QC samples, including method blanks (e.g., MEOH VOC Cooler), trip blanks, and equipment blanks, were collected for soil and groundwater scheduled for analysis of VOCs. No VOCs were detected above laboratory reporting limits in trip, equipment, or method blanks.

### 5.2.1.5 Data Quality Evaluation

Stantec performed internal data quality evaluation on all soil and groundwater samples collected as part of the RI to determine the acceptability of the analytical results. The data quality evaluation consisted of the following elements:

- Package completeness
- Verification of electronic data deliverable (EDD) against hardcopy (10% verification);
- Holding times from sampling to extraction and extraction to analysis;
- Blank results (method, field, instrument);
- Spike/surrogate recoveries;
- Laboratory duplicate results; and
- Method reporting and detection limits in relation to PSLs.

In addition to the Stantec internal data evaluation, Stage 3 and 4 validations were completed by an independent third-party [EcoChem, Inc. (EcoChem)] on a minimum of 10% of laboratory reports or a single sample delivery group as specified in the SAP. Three laboratory data packages were submitted directly to EcoChem by the project laboratory for Stage 3 and 4 validations throughout the course of the RI.

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### **Data Quality Exceptions**

Holding times from sample collection to laboratory extraction were exceeded for 27 soil samples collected on September 16<sup>th</sup> and 17<sup>th</sup>, 2010 and April 26<sup>th</sup>, 2011 as noted on soil data summary tables. This resulted from a longer than anticipated decision time regarding the need for additional sample analysis as described in the RI/FS Work Plan. The laboratory assigned "H" data qualifiers to semi-volatile organic compound results for those samples. Following Stantec internal data quality evaluation, "J" qualifiers were further assigned to the affected data, indicating that the analytical results should be considered as estimates.

No other data quality exceptions were noted which could affect data interpretation and no data was rejected.

Copies of the data validation reports are maintained in the Stantec Bellevue office and are available upon request.

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## 6.0 ANALYTICAL RESULTS

### 6.1 SOIL QUALITY

A comparison of soil results to the PSLs is presented in **Tables 18** through **24**. Soil samples were tested for a broad range of constituents. Soil samples exceeded the initial PSLs for certain VOCs and SVOCs (including PAHs) and metals.

In addition to direct comparison of chemicals to PSLs, the EPA statistical program, ProUCL version 5.0 was used to provide summary statistics for the Site-wide metals and cPAHs, excluding Building B which is discussed in Section 6.1.1. It is important to note that use of ProUCL was intended to provide both an evaluation of compliance with CULs and an additional means of estimating contaminant distribution across the Site with the assumption that the number of samples and locations are adequate to characterize Site contamination. For example, when deriving exposure point concentrations in human health risk assessments, where a sufficient number of samples have been collected to allow statistical analysis, risk and non-cancer hazards are most often evaluated on the basis of a site-wide 95% Upper Confidence Limit rather than on a point-by-point basis. Secondly, statistical evaluation was intended to evaluate soil impacts resulting from historical operations by comparison of chemicals detected in areas of the Site containing the bulk of historical operations (Building B) with other areas. Finally, to the extent allowed by MTCA 173-340-703, statistical analysis was used to assist selection of indicator hazardous substances.

On a Site-wide basis, arsenic was detected in all samples. Mean and median concentrations of arsenic were 15.64 and 9.29 milligrams per kilograms (mg/kg), respectively, with no discernable parametric or non-parametric distribution using ProUCL goodness of fit tests. Arsenic was detected at concentrations greater than two times the Method A soil PSL (20 mg/kg) Method A soil PSL in 7 of 104 samples, with the highest concentration (155 mg/kg) detected in TC-MW-9R, located at the extreme southwest corner of the Site near the property line with the adjacent Ameron/Hulbert property.

Copper was detected in all soil samples at concentrations ranging from 11.8 to 945 mg/kg. Seventy-seven of 116 samples exceed the PSL based on background (36 mg/kg). As with the other heavy metals, the data did not follow any discernable distribution. The mean and median concentrations were 84.96 and 47.6 mg/kg, respectively.

Nickel, was lognormally distributed at the 5% significance level across the Site with mean and median concentrations of 42.56 and 36.7 mg/kg, respectively, for all 48 samples analyzed. The sample collected from TC-MW-8-1' was the only sample with a reported concentration (129 mg/kg) substantially above the mean and above the PSL (47.8 mg/kg) based on 90 percentile background concentration for Puget Sound.

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Although detected in all 86 samples, lead exceeded the PSL (250 mg/kg) in only six samples (6%) at concentrations ranging from 250 to 678 mg/kg. Lead was detected at more than twice the PSL in only one sample (TC-MW-7-3'). Site-wide, the mean and median concentrations of lead were 78.9 and 36.9 mg/kg, respectively, with an approximate lognormal distribution. Based on this distribution, the 95% UCL (Chebyshev) was 124.3 mg/kg.

cPAHs were detected above the PSL (toxic equivalency (TEQ) of 0.14 mg/kg) in 24 of 103 samples. In general, cPAH contamination above the PSL was widespread across the Site, however, the highest TEQs were detected in samples collected within the southern portion of the Site (extending from the south walls of Buildings B and C to the southern property line). With the exception of TC-SB-6 (TEQ = 10.72 mg/kg), where the highest concentrations of cPAHs were detected at a depth of approximately 9 feet bgs, the highest concentrations of cPAHs were located at approximately 3 to 4 feet bgs, which coincides with the approximate depth of first encountered hydraulic dredge fill material. Mean and median Site-wide cPAH TEQs were 4.13 and 0.115 mg/kg, respectively.

Statistical evaluation indicated that there is low correlation ( $r^2 = 0.30$ ) between measured TPH and detections of cPAH (as TEQ) at the same depths, indicating that cPAHs are not solely related to documented releases of petroleum at the Site.

### 6.1.1 Building B

In April 2011, soil samples were collected during the installation of monitoring wells TC-MW14, TC-MW-15, and TC-MW-17, within Building B. In accordance with the *Work Plan-Supplemental RI to Address Data Gaps* (Stantec 2012), in September 2012 seven soil borings (TC-SB-14 through TC-SB-20) were advanced to depths of up to approximately 15 feet below the building slab within Building B to define the lateral extent of arsenic, copper, and cPAHs identified in April 2011.

Sample results were evaluated separately from other Site-wide soil characterization data to evaluate possible impacts to soil resulting from the bulk of operations (peen blasting, solvent treatment of metals, painting and powder coating, etc.) conducted within this building (see **Figure 3**). Releases to subsurface soil could have resulted from the hand-dug dip tank, noted general deterioration of the building slab, and two floor drains. Summary statistics for the below slab data set, including distribution (goodness of fit tests), mean and median concentrations, standard deviation, coefficient of variation, and recommended 95% UCL for selected chemicals (e.g., arsenic, copper, and cPAHs on the basis of TEQs assigned to each sample), were evaluated using ProUCL. In addition, each chemical data set was evaluated for the presence of data outliers. The results indicate the following:

- TPH-D was detected above the PSL in one of six samples (1,530 mg/kg) at TC-MW-17, at a depth of four feet. Since ProUCL recommends at least eight samples for reliable statistical analysis, TPH-D was not further evaluated statistically.



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- Arsenic was detected in all nine sample locations and depths sampled at concentrations ranging from 5.56 to 21 (one sample only) mg/kg. None of the reported concentrations exceeded the PSL (20 mg/kg), except for sample TC-SB-14-4'-5'; however, the duplicate of this sample contained arsenic below the PSL at 14.3 mg/kg. At the 95% confidence level, the mean concentration for all samples was 14.35 mg/kg with a median concentration of 9.25 mg/kg. Mean and median concentrations of arsenic were essentially the same as reported on a Site-wide basis. Parametric and non-parametric goodness of fit tests indicated that the data did not follow a discernable distribution (e.g., normal, lognormal, gamma).
- Copper was detected in all nine sample locations and depths sampled at concentrations ranging from 13.6 (TC-SB-19-4'-5') to 141 (TC-SB-16-2'-3') mg/kg. Copper was detected above the initial PSL (Three-Phase Partitioning Model for protection of surface water adjusted upward based on the 90<sup>th</sup> percentile background concentration (36 mg/kg) for Puget Sound) in 15 of the 25 samples with a mean and median concentration of 77.79 mg/kg and 47.5 mg/kg, respectively. These values were very close to the mean and median concentrations on a Site-wide basis (84.96 and 47.6, respectively).
- At least one cPAH was detected in 21 of 22 samples. The PSL was exceeded in one or more depth intervals in samples collected from five locations (TC-SB-15 through TC-SB-17, TC-SB-19, and TC-MW-17). The largest contributor to PSL exceedance was benzo(k)fluoranthene, which was detected in six of seven samples at concentrations above the PSL of 0.443 mg/kg. Statistically, for the entire data set of cPAHs, the mean and median TEQs were 0.12 and 0.078 mg/kg, respectively, with a standard deviation of 0.122.

## 6.2 GROUNDWATER QUALITY

This section summarizes groundwater quality results collected during the four events between 2010 and 2014. Detailed results are provided in **Tables 25** through **32**. The purpose of groundwater monitoring was to evaluate Site-wide groundwater quality and flow in focused areas where historical activities and documented releases to Site soil may have impacted groundwater quality. As discussed in Section 4.3, wet season groundwater sampling was conducted in December 2010, and dry season groundwater sampling was conducted in October 2011 as part of the RI.

The samples were analyzed for dissolved metals and for TPH, SVOCs, cPAHs, VOCs, and PCBs. No VOCs were detected above PSLs in the 19 groundwater samples selected for this analysis. A total of 42 samples were submitted for SVOC analysis. Of the detected SVOCs, the PSLs for 1-methylnaphthalene and BEHP (a common laboratory contaminant) were exceeded in five samples and one sample, respectively.

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Heavy oil was reported above the PSL in three samples [TC-MW-3 Duplicate only; TC- MW-14 (both May 2011 and July 2012 events); and, TC-MW-17 (July 2012, but not February 2013)]. PCBs (expressed as total PCBs) were reported above the PSL in three samples: [TC-MW-7 (May 2011 only); TC-MW-12 (May 2011 only); and, TC-MW-17 (May 2011 only)]. The reported detections of PCBs in groundwater were unusual given the high affinity of PCBs to sorb to organic material and their relative insolubility in water. Therefore, the presence of PCBs in these samples was likely related to the turbidity of the samples.

Dissolved copper was detected in 51 of 61 groundwater samples at concentrations ranging from 0.292 to 27 µg/L. Twenty five samples contained dissolved copper above the PSL of 2.4 µg/L. It is noted that with the exception of TC-MW-6, copper was detected above the PSL only in the initial sampling event following well installation (May 2011). This may have resulted from high turbidity noted in the water samples collected during the first sampling event. Samples collected from TC-MW-6 exhibited highly variable concentrations of copper over the three monitoring events: 2.64 (May 2011); <0.5 (July 2012); and 4.36 (February 2013).

Arsenic was detected above the PSL (2.4 µg/L) in 31 of 62 samples at concentrations of up to 425 µg/L. Unlike dissolved copper, arsenic was not routinely detected in samples collected during the initial sampling event, and higher concentrations were reported for the July 2012 and February 2013 sampling events.

Data obtained from the TCSystems Site monitoring well network indicate that surface water PSLs have been exceeded in monitoring wells situated in the north and central portions of the Site for copper (TC-MW 15 through TC-MW-17 and TC-MW-4) and for arsenic (TC-MW-12, TC-MW-15 and TC-MW-16). However, with the exception of TC-MW-6, exceedance of CULs for these metals have not been identified in wells placed along the southernmost portion of the Site adjacent to the southern boundary with the adjoining Ameron-Hulbert property (TC-MW-6 through 9, TC-MW-9R, and TC-MW-20). These results indicate the relative immobility of metals in soil and groundwater and/or, those detections of metals above PSLs in upgradient wells were the result of artifacts of the sampling such as fine-grained particulates.

### 6.2.1 Additional Assessment – November 2015

The results of soil analysis indicate that for a number of chemicals there is a poor correlation between exceedance of soil PSLs based on groundwater protection and observed groundwater results. This observation is most notable for arsenic and copper. For example, using all Ecology defaults, the 3-phase model predicted that the measured soil concentration observed in MW-1 (70.2 mg/kg) would result in a concentration of copper in the groundwater of almost 150 µg/L instead of the measured concentration of 3.13 µg/L.

To further evaluate Site-specific conditions which may render the Ecology 3-phase model unproductive for use in deriving soil CULs for the protection of groundwater, soil samples were collected from three locations where previous sampling results indicated elevated copper

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concentrations. These locations (labeled TC-MW-7V, TC-MW-9RV and TC-MW-12V) are in the immediate vicinity of MW-7, MW-9R and the former soil boring TC-SB-12.

*In situ* soil samples were collected by driving a ring sampler to the desired depth (approximately 3-4 feet bgs near MW-7 and MW-9R and approximately 9 to 10 feet bgs as close as possible to the former TC-SB-12 (where previous analysis indicated concentrations of 248 mg/kg copper at 9 to 10 feet bgs). A sufficient volume of soil was collected for soil dry bulk density by ASTM D 2937; total and air-filled porosity by API RP40; fraction organic carbon by Walkley Black; grain size by ASTM D 422; cation exchange capacity by EPA 9081; copper and arsenic by EPA Method 6010; and, leachate analysis by EPA Method 1312 (SPLP) in accordance with 173-340-747(7)(b) since the soil pH was determined to be >6. Non-leaching analysis was used to confirm the presence of the selected metals prior to extraction.

Soil samples were also collected from push-probe locations TC-SB-6V, TC-SB-8V, and TC-MW-9RV situated as close as possible to previous sample locations TC-MW-6, TC-MW-7, TC-MW-9R, TC-SB-6, and TC-SB-8 to further define the vertical and lateral extents of PAHs, copper and arsenic. Soil was continuously sampled at approximately 2-foot intervals extending from approximately 4 feet bgs to a maximum depth of approximately 15 feet bgs using direct-push methods (e.g., Geoprobe).

The results of the SPLP along with corresponding soil concentrations and most recent groundwater sampling results (3/13/2014) for arsenic and copper are presented in **Table 35**. WAC 173-340-747(a)(c)(ii) provides procedures to be used for deriving soil concentrations through the use of leaching tests. For copper and arsenic the leachate concentration must be less than or equal to the applicable groundwater CUL established under WAC 173-340-720.

The data for copper indicate that leachate concentrations were at or below the surface water CUL in samples collected from TC-SB-12, and just above the surface water CUL in the sample collected from TC-MW-9R. Leachate concentrations correspond to 50.4, 56.9 and 173 mg/kg respectively. The reported leachate concentration in sample TC-MW-7 (11.6 µg/L) is well above the groundwater CUL of 3.1 µg/L, and corresponds to a soil concentration of 93.2 mg/kg.

Very similar results were obtained for arsenic and indicated that the highest leachate results were reported for TC-MW-9R (12 µg/L) and TC-MW-7 (57.3 µg/L). However, soil concentrations of 16.7 and 14.3 mg/kg were reported respectively. It is noted that the sample collected from TC-MW-7, unlike all other results, contained arsenic in the leachate at a concentration (57.3 µg/L) which is more than 3.5 times higher than detected in soil (14.3 mg/kg), and measured groundwater concentrations (3/13/2014) of 2.59 and 20.8 µg/L, respectively were measured at this location. Arsenic was not detected in leachate (<5 µg/L) in either sample collected from TC-SB-12 although the reported soil concentrations were 64.8 and 21.43 mg/kg. This is most likely due to differences in soil physical properties at TC-SB-12 (see discussion below) which would affect mobility of metals.

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Soil physical data collected in November 2015 indicate considerable variability between the northern and southern portions of the Site: most notably dry bulk density, cation exchange capacity and fraction organic carbon and with the exception of dry bulk density, were much higher in the northern portion at TC-SB-12. Site-specific soil physical parameters and leachate data were used as inputs to the Ecology 3-phase model; however, there was no correlation between the model results and empirical data. For example, the copper leachate concentration of 11.6 µg/L resulted in a predicted soil concentration of 5.14 mg/kg versus the actual concentration in soil of 93.2 mg/kg.

Based on the data provided above, use of soil CULs for protection of groundwater derived using the Ecology 3-phase model do not accurately predict Site-specific impacts to groundwater and should not be used to select remedial alternatives or to assess groundwater CULs.

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### 7.0 CONCEPTUAL SITE MODEL

A CSM was developed as part of the RI/FS work plan (Stantec 2011). The initial CSM has been revised with the following information based on Site data collected as part of the RI. A graphical presentation of the CSM is included as **Figure 14**.

#### 7.1 CONTAMINANTS OF POTENTIAL CONCERN (COPCS)

Based on detection of a chemical above the PSL at least once, the COPCs identified for the Site soil include cPAHs, TPH in the diesel and heavy oil ranges, arsenic, lead, copper and 1-methylnaphthalene. For groundwater, the COPCs include cPAHs, TPH in the diesel and heavy oil ranges, arsenic, copper, and 1-methylnaphthalene. The COPCs are further evaluated with respect to cleanup levels described in Section 8.1. Selection of Site Indicator Hazardous Substances (IHS) is discussed in Section 8.1.3.

The primary possible contaminant sources include: 1) contaminated hydraulic dredge fill material imported to the Site; 2) releases associated with industrial activities; and 3) other historical sources as described below.

Fill Material - By 1967, the southern portion of the Site (the area that was not beneath the shingle mill) had been filled with material of an unknown origin. Records at the Port of Everett indicated that unknown fill material, including industrial refuse, had been dumped in the vicinity of, and potentially on, the Site between 1960 and 1974. In the mid-1970s, the Port of Everett, in conjunction with the US Army Corps of Engineers, the City of Everett, and Snohomish County, began a dredge and fill operation that completed filling of the Site. Soil containing sawdust, wood debris, other organic materials, and brick is described in boring logs as fill material generally extending across the Site. Fill is first encountered at approximately 3 to 5 feet bgs and extends to an approximate depth of 15 feet.

Industrial Releases - Historical operations at the Site have been varied and may have contributed to current metals, petroleum, and PAH impacts identified in soil and groundwater.

Other Sources - The fire, which destroyed at least a portion of the former Jamison Shingle Mill. SVOCs, PAHs, and cPAHs, resulting from the combustion of wood, have contributed to detection of these compounds in Site soil and groundwater. For example, cresols (m, p, and o isomers) and carbazole (a constituent of anthracene oil found in wood tar or creosote) have been detected frequently in on-Site soil and groundwater. Historical records indicate that fire-burned building debris was moved from its original location to an area south of Building B.

Ameron Operations North - In evaluating whether operations in and around Ameron's 'Area G' (the northern portion of the Ameron Site) impacted soil conditions in the vicinity of the stormwater line which runs along the property line between the two sites, the Pinnacle report

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prepared for the Ameron-Hulbert RI/FS was reviewed. According to the Pinnacle report, "the portion of the sewer line upgradient to the contaminated area of the northern part of Area G collects storm water from portions of Areas M and G and from the east and west side of the eastern-most building on the property to the north." The report concludes in part that "since contaminant sources consistent with the contaminants found in the soils in the northern part of Area G are likely present in Areas G and M, the source of the contaminants in the soil could have been from (Ameron on Area G)."

### 7.2 AFFECTED MEDIA

Media affected by contaminants detected during the RI/FS consist of soil and groundwater.

### 7.3 POTENTIAL RECEPTORS AND EXPOSURE PATHWAYS

Potential receptors under both current and hypothetical future land use are humans and aquatic organisms. For human receptors, the primary potential exposure routes would include direct contact exposure including incidental ingestion and dermal contact with contaminated soil. A less significant exposure route could include inhalation of dusts in ambient air resulting from soil disturbance or wind erosion.

The absence of volatile organic compounds in soil and groundwater indicate that the migration of contaminants in the vapor phase to indoor air pathway (vapor intrusion) is not complete.

Because Site groundwater is not considered to be a potential source of drinking water, potential human exposure could occur only through direct contact with groundwater during construction/excavation activities and/or future migration of contaminated groundwater to surface water.

Data collected as part of the RI/FS conducted on the adjacent Ameron/Hulbert property indicate that marine surface water or sediments have not been impacted through surface water or groundwater migration. Therefore, this exposure pathway including possible exposure of humans who may ingest contaminated fish and benthic organisms or have direct contact with surface water, is not considered to be complete. Under current and reasonably anticipated future Site use, exposure to contaminated soil by commercial/industrial on-Site workers is not considered to be a complete exposure pathway due to the presence of on-Site buildings and paved surfaces across the Site. Exposure to both contaminated soil and groundwater is considered a complete exposure pathway during construction/excavation activities during which soil and/or groundwater disturbance occurs.

## 8.0 CLEANUP LEVELS AND STANDARDS

Washington MTCA regulations define cleanup standards for contaminated soil and groundwater in WAC 173-340-740 and 173-340-720 respectively. A cleanup standard consists of three distinct elements:

1. CULs expressed as allowable concentrations of hazardous substances present in site soil and groundwater. CULs are derived with consideration of the highest beneficial use of a property using the reasonable maximum exposure (RME) expected to occur under current and hypothetical future use conditions.
2. Point of compliance, the location(s) where cleanup levels shall be met.
3. Any other applicable state and federal laws.

### 8.1 CLEANUP LEVELS

MTCA provides three approaches for setting CULs: Method A, which is generally most applicable to sites with few identified contaminants; Method B, which can be used at all sites; and, Method C, which applies to sites meeting specific uses and conditions.

Method B and C include use of state and federal laws and risk equations to establish CULs. Method B Standard uses generic default exposure assumptions to calculate CULs whereas Method B Modified provides for the use of site-specific or chemical specific information to change certain default assumptions. Both standard and modified approaches assess protectiveness of a remedy against an acceptable risk of one in one million ( $1 \times 10^{-6}$ ) and non-cancer hazards of less than 1 (concentration at which there are no likely acute or chronic effects on human health or significant adverse effects to aquatic and terrestrial organisms). Method C uses exposure assumptions, risk levels, and non-cancer targets appropriate for restricted land use, such as commercial/industrial. However, MTCA provides that CULs not be set below PQLs or below natural background concentrations for chemicals under evaluation.

#### 8.1.1 Proposed Soil Cleanup Levels

Proposed CULs for soil were developed in accordance with WAC 173-340-740. The proposed CULs for soil were developed to be protective of the reasonable maximum exposure scenario and reflect changes to MTCA Method B values, which have occurred subsequent to the development of PSLs. CULs were developed for all compounds that were detected at a frequency greater than or equal 5% where a minimum of 20 samples were collected.

Soil CULs were established based on protection of groundwater as surface water and were calculated using the Ecology 3-phase model with the most conservative marine surface water Applicable or Relevant and Appropriate Requirement (ARAR) selected as the target

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concentration. For some chemicals present in soil but not detected in groundwater at concentrations above their respective groundwater screening levels, Method B values for direct human contact were selected regardless if they were higher than CULs based on protection of groundwater. According to WAC 173-340-747(9), if an empirical demonstration can be made that concentrations in soil are not causing exceedance(s) of groundwater CULs then development of a soil criterion protective of groundwater is not needed. WAC 173-340(9)(b) provides requirements for an empirical demonstration which are discussed in **Appendix E**.

As indicated in **Appendix E**, cPAHs except for benzo(a)anthracene, benzo(a)pyrene, dibenzo[a,h]pyrene, dissolved nickel, dissolved thallium, dissolved mercury were not detected in groundwater at concentrations greater than PSLs in the RI. For these constituents, the soil criteria Method B direct human contact was selected as the soil CUL.

**Table 33** presents the proposed CULs for soil.

### 8.1.1.1 Soil Point of Compliance

WAC 173-340-740 states that the point of compliance at a Site for human exposure by direct contact with Site contaminants in soil will be from the surface extending to a depth of 15 feet. However, for those cleanup actions that involve containment of hazardous substances, the soil cleanup levels will typically not be met throughout the Site [WAC 173-340-740(6)(f)]. Such cleanup actions are considered to comply with cleanup standards if the remedy: 1) is permanent to the maximum extent practicable; 2) is protective of human health; 3) is protective of terrestrial ecological receptors; 4) includes institutional controls to protect the long-term integrity of the containment system; and 5) includes compliance monitoring and periodic reviews to ensure the long-term integrity of the containment system. Any remedial alternatives that include containment as part of the remedy will be evaluated against these criteria in the FS.

Final cleanup standards developed for soil will be selected by Ecology and presented in the Site CAP.

### 8.1.2 Proposed Groundwater Cleanup Levels

The proposed groundwater CULs presented in this section will be used to develop and evaluate the effectiveness of cleanup action alternatives for the FS. CULs for groundwater developed under MTCA Method B represent the concentration of hazardous substances that are protective of human health and the environment for identified potential exposure pathways, based on the highest beneficial use (HBU) and the RME. For the Site, CULs are based on Washington marine water quality criteria (WQC) or, where these criteria have not been established, the MTCA Method B CULs for protection of surface water since Site groundwater is not considered a current or future source of potable water.



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Proposed CULs for Site groundwater are presented in **Table 37**. Final cleanup standards for groundwater will be confirmed and presented in the Site CAP.

Ecology requested that CULs for groundwater IHS also be established for the protection of construction and excavation workers. With Ecology concurrence, IHS were selected based on an exceedance of Method B ingestion/inhalation criteria or ARARs except that only chemicals detected at a frequency greater than 5% would be evaluated. For carcinogens, the CULs are based on a CR of  $1 \times 10^{-6}$  and for non-carcinogens, a hazard quotient of 1. Equations and exposure assumptions used to derive the CULs are presented in **Table 38**.

### 8.1.2.1 Proposed Groundwater Point of Compliance

Under MTCA, the point of compliance is the point or location on the Site where the cleanup levels must be attained. The point of compliance for groundwater is typically throughout the Site when groundwater is considered a potential source of potable drinking water. However, because this not the case for the Site, potential groundwater discharge to surface water represents the highest beneficial use. Therefore MTCA provides for a conditional point of compliance at the point of discharge of groundwater to the surface water receiving body. MW-9R, located near the downgradient edge of the Site, is the closest well to the possible point of entry of groundwater to surface water at the 12<sup>th</sup> Street Yacht Basin and, therefore, is the proposed conditional point of compliance for Site groundwater. Compliance monitoring is discussed further in the FS portion of this document.

### 8.1.3 Selection of Indicator Hazardous Substances

Potential IHSs proposed for use in defining Site cleanup requirements were evaluated and selected based on consideration of the following Site-specific criteria obtained from WAC 1732-340-703:

- Chemicals detected above the PSL;
- Frequency of detection;
- Natural background concentrations; and,
- Toxicity of detected chemicals and likely persistence in the environment.

For soil, 1-methylnaphthalene, arsenic, lead, copper, cadmium, mercury, nickel, thallium, pentachlorophenol, and cPAHs have been selected based on their exceedance of protection of groundwater as marine surface water CULs. TPH diesel range organics were selected based on exceedance of the MTCA Method A CUL. Further evaluation resulted in removal of the following:

- Cadmium: removed based on absence of detections in groundwater. Cadmium was not detected above Method B direct contact CUL.

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- Mercury, thallium and zinc were removed based on empirical demonstration provided in **Appendix E**.

Based on this, TPH diesel range organics, arsenic, lead, copper, 1-methylnaphthalene and, cPAHs are the only remaining IHS for soil.

For groundwater, the selected potential IHSs include cPAHs, 1-methylnaphthalene, pentachlorophenol, heavy oil and diesel-range organics, Aroclor 1254 (PCB), arsenic, copper, and cPAHs. Further evaluation resulted in the removal of the following as an IHS in groundwater:

- Pentachlorophenol based on the low frequency of detection (2%).

Data included as part of the evaluation are presented in **Tables 39** through **44** for soil and **Tables 45** through **50** for groundwater. The tables include chemical grouping (e.g., SVOCs), number of samples, number of detections, frequency of detection, minimum and maximum detected concentrations, number of detections above CULs, and the chemicals considered to be IHS.

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### 9.0 FEASIBILITY STUDY

This FS specifies and develops cleanup action alternatives to enable selection of an appropriate cleanup action for the Site based on the results of the RI. The primary purpose of the cleanup action alternatives presented is to protect human health and the environment.

#### 9.1 REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives (RAOs) define the cleanup goals set to protect human health and the environment. RAOs address each of the affected media, and each of the proposed cleanup alternatives must achieve the RAOs to be a viable cleanup action. Based on the CSM presented in Section 7.0 and the cleanup standards developed in Section 5.0, the RAOs identified for the Site consist of:

**RAO-1** - Prevent or limit direct human contact with soil containing indicator hazardous substances above the direct contact CUL.

**RAO-2** - Prevent or limit direct human contact with hazardous substances above the CUL in shallow groundwater.

Each of these RAOs can be achieved through either of the following mechanisms:

- Removal or remediation of the contaminated soil and groundwater, or;
- Preventing exposure to contaminated soil and groundwater.

The suitability of each cleanup action alternative depends on how the alternative meets the threshold and other requirements listed in WAC 173-340-360(2). The evaluation criteria identified in MTCA (see Section 9.7) will be used to determine the suitability of each alternative.

#### 9.2 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

In accordance with MTCA, all cleanup actions must comply with applicable state and federal laws [WAC 173-340-710(1)]. MTCA defines applicable state and federal laws to include legally applicable requirements and those requirements that are relevant and appropriate. These requirements are collectively referred to as ARARs.

The CULs derived in accordance with MTCA were used as a basis for selection of a cleanup action. In addition to compliance with MTCA, the following ARARs were also considered as potentially applicable: EPA National Recommended Water Quality Criteria – Section 304 Clean Water Act; Washington Water Pollution Control Act (Chapter 90.48 RCW) and the implementing regulations; and Water Quality Standards for Surface Waters of the State of Washington (Chapter 173-201A WAC).

### 9.3 SCREENING OF CLEANUP ACTION ALTERNATIVES

The following section presents and evaluates potentially suitable cleanup action alternatives (CAAs) that can be used to meet the RAOs. Each CAA is presented individually but may be implemented concurrently. Implementation of the CAAs individually or in combination will achieve the three previously presented RAOs.

Any cleanup action alternative that failed to meet the RAOs was excluded from further detailed evaluation. Each of the alternatives that achieved these RAOs were then evaluated further on the following criteria (WAC 173-340-360(2)(b)):

- Permanence;
- Long-Term Effectiveness;
- Management of Short-Term Risks;
- Technical Implementability;
- Administrative Implementability;
- Cost; and,
- Consideration of Public Concerns.

The selected CAAs include: 1) capping and containment; 2) institutional controls; 3) excavation and disposal of contaminated soil; 4) thermal desorption 5) Stabilization/Solidification 6) groundwater extraction and treatment as further described in the following sections.

#### 9.3.1 Capping and Containment

Capping and containment of contaminated soil and groundwater consists of maintaining the existing impermeable barrier (pavement and buildings) in areas where soil may be disturbed. This approach prevents potential human exposure to contaminated soil and prevents migration of soil via erosion or mechanical disturbance by covering contaminated soil with a physical barrier.

The impermeable barrier (pavement and buildings) also minimizes the potential for soil to be transported as airborne dust and reduces the potential for groundwater discharge to surface water by reducing rainwater infiltration through impacted soil.

Capping combined with containment achieves the RAOs.

#### 9.3.2 Institutional Controls

Institutional controls consist of physical barriers and use restrictions such as deed restrictions or restrictive covenants designed to limit or prevent activities that may result in exposure to hazardous substances.

Institutional controls would be applied through the implementation of a restrictive covenant limiting Site activities that could result in human contact with contaminated soil and

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groundwater. The restrictive covenant would be implemented along with capping combined with containment, and would include requirements for inspections and maintenance of the cap. Institutional controls combined with capping/containment meets the RAOs

### 9.3.3 Excavation and Disposal of Contaminated Soil

Excavation and off-Site disposal of contaminated soil provides a permanent CAA and would achieve the RAOs in areas where buildings or other structures are not located. The presence of on-Site buildings and impervious (concrete) surfaces overlying contaminated soil presents practical challenges to this CAA as a Site-wide solution. This CAA is more suitable in areas not currently covered with buildings. A significant challenge to this CAA is that it requires that excavation workers handle contaminated soil and groundwater. Exposure to contaminated soil and groundwater during excavation activities is the only complete pathway in the Conceptual Site Model. Therefore, although this CAA is permanent, it presents the greatest risk to human health.

### 9.3.4 Thermal Desorption

Subsurface thermal desorption as a remedial approach can increase the volatilization of chemicals from the unsaturated (vadose zone) soil matrix. Once chemicals are desorbed, the resulting vapor phase must be collected and treated, typically by a soil vapor extraction system paired with catalytic oxidation.

The principal of thermal desorption relies on a relatively low volatilization temperature of targeted COCs, such as petroleum hydrocarbons, VOCs, and SVOCs. Given the predominance of non-volatile constituents (i.e metals) associated with the Site, thermal desorption is not considered a feasible remedial alternative at the Site.

### 9.3.5 Stabilization/Solidification

Stabilization refers to processes involving chemical reactions resulting in the reduction of the leachability of a waste. Stabilization chemically immobilizes hazardous materials or reduces their solubility through a chemical reaction. The physical nature of the waste may or may not be changed by this process. Stabilization may also be used to render a hazardous waste non-hazardous prior to disposal. Stabilization involves the use of the reagents including cement, fly ash, or phosphates that reduce the leachability of contaminants in soil.

Solidification is similar to stabilization and results in encapsulation of a waste to form a solid material and restriction of contaminant migration by decreasing the surface area exposed to leaching. Solidification can be accomplished by a chemical reaction between a waste and binding reagents or by mechanical processes.

Based on the site conceptual model, the only complete pathway for exposure to contaminated soil and groundwater is direct contact during excavation. Stabilization/solidification could

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therefore be considered as an effective and appropriate remedial option to immobilize hazardous substances in the media and therefore reduce the risk of exposure; however, it is less effective than other alternatives.

Stabilization/solidification at the Site completed in-situ would require injection throughout the site where contaminants at elevated concentrations have been detected. As the site is not completely homogenous, the effectiveness of these injections in reducing all contamination exceeding CULs is suspect. Additional confirmation testing would be required, and if CULs are still exceeded, additional injections would be required. Given the areal extent of contaminants, application of stabilizers would be required in a large area resulting in significant costs for treatment, and in turn be less effective as a solution for the remedial goal of contaminant reduction and removal. Additional limitations to stabilization/solidification include;

- Lower short term effectiveness and implementability than excavation due to uncertainty of success of a single application;
- Uncertainty of success (potential requirement for multiple injections) results in a longer restoration timeframe;
- Long-term effectiveness of in-situ applications has not been consistently demonstrated for cPAHs;
- Potential resistance from the community to injection of chemicals into groundwater (special sensitivity given proximity to Puget Sound); and
- Lower long term effectiveness than removal and disposal (excavation).

While Stabilization/solidification could potentially meet the RAOs, it is less effective at meeting the threshold criteria for evaluation than other alternatives and is not further considered as a remedial alternative at the Site.

### 9.3.6 Groundwater Extraction and Treatment

Groundwater extraction and treatment (GWET) is primarily designed to provide hydraulic control of dissolved-phase hazardous substances and prevent migration of impacted groundwater. A secondary benefit is reduction in contaminant concentrations. Large volumes of extracted water are produced using GWET methods. This water must be treated and monitored effectively before being discharged, typically to a publically owned treatment works (POTW) under discharge permit requirements.

GWET is considered as a potential treatment option for the Site because reducing contaminants in groundwater could lessen the risk of exposure to contaminated groundwater during excavation activities which is one of the complete pathways in the Conceptual Site Model.

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Although groundwater extraction and treatment typically results in reduction in contaminant concentrations in groundwater, groundwater extraction can depress groundwater levels leaving residual hazardous substance sorbed to the soil matrix. When groundwater levels return to typical pre-treatment levels, sorbed hazardous substances may partition to the dissolved phase, resulting in contaminant rebound in groundwater.

Of the indicator hazardous substances identified in Site groundwater, the most wide-spread are metals (specifically arsenic and copper) and cPAHs. Contaminants are widely distributed across the Site, indicating that the design of a GWET system would require pumping from a wide area, resulting in a prohibitively large volume of water requiring treatment. Additionally, off-Site migration of hazardous substances in groundwater has not been shown to be a concern. Therefore, GWET does not meet the RAOs and is not further considered as a remedial alternative at the Site.

### 9.4 SITE REMEDIAL ALTERNATIVES

Three site remedial alternatives have been developed to address the previously described applicable RAOs.

Each of the three remedial alternatives along with their associated remedial technologies is presented in this section. A description of these alternatives is presented below and includes a discussion of the conceptual approach. The relative rating regarding how each alternative meets the criteria specified in WAC 173-340-360(2)(b) and cost estimates for implementation of each alternative are included in **Tables 51** through **53**, and summarized in **Figure 17**-the Disproportional Cost Analysis (DCA). Cost estimates are preliminary and provided for comparison purposes only.

#### 9.4.1 Alternative 1: Remedial Excavation in Accessible Areas and Containment

Alternative 1 consists of remedial excavation and off-Site disposal of accessible contaminated soil and containment. 'Accessible' soils are defined as soils in areas not covered by buildings. Soils currently bearing a lateral structural load are considered inaccessible because their removal would impact the structural integrity of the buildings. A 1:1 slope is considered an adequate setback for excavation adjacent to buildings.

Of the three alternatives, Alternative 1 is the most permanent. This alternative permanently removes as much impacted soils from accessible areas as is practicable. For Alternative 1, contaminated soil is defined as soil containing cPAHs and/or arsenic above the direct contact CULs. For the purposes of considering Alternative 1, cPAHs and arsenic are considered the IHS. Implementation of Alternative 1 would result in incidental removal of other detected constituents not above CULs. These other constituents are situated in the contaminated areas as defined.

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This alternative includes institutional controls and compliance groundwater monitoring as part of implementation.

### 9.4.1.1 Description of Alternative 1

The estimated horizontal limits of soil contamination (shown on **Figure 15**) are based on the assumption that soils in the immediate vicinity of a sample location are contaminated, and that the limits of the contamination extend either to an adjacent sample point or half the distance to a 'clean' sample point (sample point where IHS do not exceed the CUL). The horizontal extent of each area is considered an estimate for planning purposes only and not to be considered as a definitive determination of the extent of contamination. The depth of contamination in soils for IHS in these various areas, range from less than one foot to approximately twelve feet. For planning purposes, it is assumed that the storm line that runs along the south property line will be replaced as shown on **Figure 15**. The storm line replacement work will be coordinated with representatives of the neighboring Ameron property to the south. Additional details regarding the storm line replacement work will be provided in the CAP.

Based on the estimated horizontal and vertical extent of excavation limits, approximately 12,800 cubic yards of soil would be excavated as part of Alternative 1. Excavation depth would extend to at least the depth of the deepest soil sample containing IHS concentrations above CULs with the potential extension in depth where field observations indicate residual contamination. Alternative 1 would remove the bulk of soil containing IHS concentrations above CULs in accessible areas. In order to retain the structural integrity of buildings, contaminated soil would remain beneath buildings and immediately adjacent to the structures. Isolated areas containing soil impacts (such as the TPH-D impacts in TC-SB-21), would be left in place.

For planning purposes, it is assumed that the remedial excavation would generate three types of material: asphalt, contaminated soil, and clean structural fill. During excavation, the materials would be segregated. The asphalt would be transported to a construction debris disposal or recycling facility; and contaminated soil would be transported to a Subtitle D disposal facility (assuming none of the soil is designated as a dangerous waste). Proposed methods for characterizing excavated soil stockpiles (e.g., one composite soil sample from each 100 cubic yard) will be presented in the CAP. Clean structural fill would be placed and compacted in the excavation areas and the areas would be repaved to match existing conditions. For planning purposes, it is assumed that approximately 84 soil confirmation samples will be collected as part of Alternative 1 for performance and compliance monitoring purposes.

Alternative 1 achieves RAO-1 by removing soil with selected IHS concentrations above human direct contact CULs. Institutional controls are required for RAO-2 to insure construction workers do not come into contact with contaminated shallow groundwater or any residual soil contamination and to limit or eliminate potential direct contact with extracted groundwater.

Alternative 1 includes the excavation and disposal of soils in the following five areas:



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- Area A - South of Building B at the south limit of the Site. Current use is the parking access road.
- Area B - Southwest portion of the Site. Current use is parking and an access road.
- Areas C and Area D - Access road between Building B and Building C.
- Area E - Composite of isolated cleanup areas in the northeast portion of the Site. Current use is parking and vehicle access

### 9.4.1.2 Institutional Controls

Institutional controls would be implemented to achieve RAO-1 and RAO-2. Institutional controls are necessary to ensure that construction workers and other facility employees are not exposed to contaminated shallow groundwater or contaminated soils (contaminated media) not removed as part of the remedial excavation (i.e. soils left in place to ensure the structural integrity of the buildings).

Implementation of institutional controls includes a restrictive covenant, which specifies health and safety requirements for activities where contaminated soil or groundwater may be encountered, and the implementation of a soil and groundwater management plan (SMP) specifying required testing and management of soil and groundwater encountered during any intrusive activities.

Implementing institutional controls would achieve both RAOs by preventing or properly controlling and planning for human direct contact with residual contaminated media.

### 9.4.1.3 Groundwater Compliance Monitoring

The excavation and removal of contaminated soil would likely result in improved groundwater quality. Groundwater compliance monitoring will be used to assess the extent to which removal of contaminated soil has reduced contaminant concentrations in groundwater. In addition, groundwater compliance monitoring will confirm that potential migration of contaminated groundwater continues to not pose a threat to neighboring properties or surface water.

Groundwater compliance monitoring will consist of four rounds for one year. Groundwater samples will be collected from the conditional point of compliance (TC-MW-9R) and submitted for analysis of the IHS.

### 9.4.1.4 Estimated Cost and Implementation Timeframe

The estimated cost to implement Alternative 1 is \$2,456,000. Approximately 18 months would be required for implementation.

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### 9.4.2 Alternative 2: Focused Remedial Excavation and Containment

Alternative 2 consists of remedial excavation in an area targeted for storm line replacement. The storm line replacement work will provide an opportunity for access to impacted soils for excavation and off-site disposal. The storm line replacement will mitigate the potential that groundwater from the Site will flow into the storm line and into surface water.

Alternative 2 includes removal of soils associated with the storm line to a depth of approximately 9 feet and 4 feet across at the bottom of the excavation extending the entire length of the portion of the storm line to be replaced (approximately 220 feet). It is estimated a 2:1 side slope would be required for stability, the soils excavated for this side slope would be disposed off-site. The area to be excavated is shown on **Figure 16**.

The remedial excavation on the TCSystems Site would be coordinated with planned remedial excavation activities along the north property line of the south-adjacent property (Ameron Site). Coordination of these activities (remedial excavation on both sides of the property line at the same time as the storm line upgrade) provides an opportunity to remove contaminated soils associated with the storm line with the additional benefit of removing contaminated soils on the side slope extending north from the property line. Based on analytical results and field observations, the proposed excavation will remove impacted soils in an area of the Site with overall highest impact. Field observations during soil boring drilling in the area noted the presence of fill material interspersed with wood debris extending to depth of approximately nine feet in some areas. Soil analytical results in a soil sample collected from a depth of four feet at TC-MW-7 identified the highest cPAH concentration for the Site (TEQ of 275.08 mg/kg). In addition to cPAHs, the area includes soil at the two locations with the highest concentrations of lead (265 mg/kg), and 1, methylnaphthalene (90.7 mg/kg), which are anomalous when compared to Site-wide results. The assumed horizontal limits of the excavation (for planning and cost estimating purposes) are shown on **Figure 16**.

Based on the excavation limits shown, approximately 1,200 cubic yards of soil would be excavated and disposed off-Site.

For planning purposes, it is assumed that approximately 24 soil confirmation samples would be collected as part of the excavation for performance monitoring purposes.

The remedial excavation would achieve RAO-1 for those areas where contaminated soil was removed.

#### 9.4.2.1 Containment and Institutional Controls

As with Alternative 1, institutional controls would be implemented to achieve RAO-1 and RAO-2. Institutional controls are necessary to prevent workers from coming into contact with contaminated media not removed as part of the remedial excavation. Implementation of institutional controls includes a restrictive covenant requiring conformance to a contaminated

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media management plan which includes, at a minimum, health and safety requirements for activities where contaminated soil or groundwater may be encountered and required testing and management of soil and groundwater encountered during any intrusive activities.

Implementing institutional controls would achieve RAO-1 and RAO-2 by preventing or properly controlling and planning for human direct contact with contaminated media.

### **9.4.2.2 Groundwater Compliance Monitoring**

Groundwater compliance monitoring would consist of the same activities previously described for Alternative 1 in Section 9.4.1.3.

### **9.4.2.3 Alternative 2 Total Cost Estimate and Schedule**

The estimated cost to implement Alternative 2 is \$545,000. Approximately six months would be required for implementation.

### **9.4.3 Alternative 3: Containment and Institutional Controls**

Alternative 3 consists of containment through the maintenance of pavement cover and buildings in all areas where contaminated soil is present. Surface cover prevents direct contact and entrainment of IHS in surface water runoff and limits stormwater runoff infiltration. Institutional controls are included as part of this alternative to prevent disturbance to the surface and provide containment so that it remains functional.

As with Alternatives 1 and 2, institutional controls would be implemented to achieve RAO-1 and RAO-2. Institutional controls are necessary to ensure that construction workers and other facility employees do not come into contact with contaminated media.

Implementation of institutional controls includes a restrictive covenant, which specifies health and safety requirements for activities where contaminated media may be encountered and the implementation of a SMP, specifying required testing and management of soil and groundwater encountered during any intrusive activities.

Implementing institutional controls would achieve RAO-1 and RAO-2 by preventing or properly controlling and planning for human direct contact with contaminants in residual soil and groundwater with concentrations above human direct contact CULs.

#### **9.4.3.1 Groundwater Compliance Monitoring**

Groundwater compliance monitoring would consist of the same activities as Alternatives 1 and 2.

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### 9.4.3.2 Alternative 3 Total Cost Estimate and Schedule

The estimated cost to implement Alternative 3 is \$91,000. Approximately four months would be required for implementation.

## 9.5 FEASIBILITY STUDY EVALUATION CRITERIA

Each cleanup alternative was compared to applicable criteria to evaluate the adequacy of the alternatives with respect to regulatory requirements. The evaluation was used as a basis to compare the relative merits of the proposed cleanup alternatives.

### 9.5.1 THRESHOLD REQUIREMENTS

MTCA specifies that all cleanup actions meet these threshold requirements:

- Protect human health and the environment;
- Comply with cleanup standards specified under MTCA;
- Comply with applicable laws;
- Provide for compliance monitoring;
- Use permanent solutions to the maximum extent practicable;
- Provide for a reasonable restoration time frame; and,
- Consideration of public concerns.

Compliance with MTCA cleanup standards ensures protection of human health and the environment. The alternatives presented were prepared in the context of the proposed CULs, consistent with MTCA requirements, and therefore implementation of these alternatives protects human health and the environment. The alternatives presented comply with MTCA, and it is therefore assumed that the alternatives comply with applicable laws. Each alternative includes a groundwater monitoring component to address compliance monitoring.

### 9.5.2 PERMANENT SOLUTION

MTCA defines a permanent solution as one in which cleanup standards can be met without requiring further action. It is understood that a permanent solution may not be appropriate for all sites and regulations allow for determining whether a cleanup action is permanent to the "maximum extent practicable." Soil excavation is considered a permanent solution as long as other mechanisms and future site operations do not re-contaminate the remediated area.

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### 9.5.3 REQUIREMENT FOR A REASONABLE RESTORATION TIMEFRAME

MTCA specifies that the cleanup action be completed within a reasonable timeframe. Multiple factors are applied in order to measure whether a cleanup action is completed within a 'reasonable timeframe.' Some of these factors are:

- Risks to human health and the environment;
- Toxicity of the hazardous substances associated with the site;
- Degree of difficulty to reduce the restoration timeframe;
- Use of the site and surrounding areas and the current risk posed by contaminants to receptors;
- Future use of the site and surrounding areas and future risk posed by contaminants to receptors;
- Potential effectiveness and reliability of institutional controls;
- Effectiveness of the measures to control and monitor migration of hazardous substances from the site; and
- In-situ natural processes (i.e. natural attenuation) resulting in reduction in concentrations of hazardous substances.

### 9.5.4 PUBLIC NOTICE

MTCA specifies public involvement in the cleanup process, and as such, Ecology will publish a notice in the Site Register once the Draft RI/FS is received. The public review and comment period is 30 days. Comments will be taken into account during finalization of the RI/FS report.

## 9.6 EVALUATION OF ALTERNATIVES

Each of the three cleanup action alternatives achieves the applicable RAOs, and each alternative meets all of the MTCA threshold requirements. Therefore, each alternative is considered a viable cleanup alternative under MTCA.

### 9.6.1 THRESHOLD REQUIREMENTS

The following sections identify how each cleanup alternative complies with the threshold requirements.

#### 9.6.1.1 Protection of Human Health and the Environment

Alternatives 1 and 2 protect human health and the environment through removal of contaminated soil and off-site disposal. Both alternatives reduce the risk posed by the only complete pathway, which is exposure to contaminated soil and groundwater during

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construction/excavation activities. The risk is reduced because of the removal of contaminated soil; there is, however, an increased risk through the closed pathway because of the exposure to contaminated soil during the implementation of these alternatives. There is greater risk during implementation of Alternative 1 over Alternative 2 because of the larger volume of soil excavated.

The storm line replacement in Alternative 2 provides further protection by mitigating the potential that groundwater from the Site will flow into the storm line and into surface water.

Human health and the environment is protected through maintenance of a protective cap and implementation of institutional controls, including a SMP to prevent potential human direct contact.

### 9.6.1.2 Compliance with Cleanup Standards

Each of the alternatives meets the RAOs and complies with the MTCA soil cleanup standards by either meeting the CULs at the points of compliance or through the implementation of institutional controls.

### 9.6.1.3 Compliance with State and Federal Laws

Alternatives 1, 2, and 3 comply with ARARs. Further details are provided in Section 8.4.

### 9.6.1.4 Provisions for Compliance Monitoring

Specific compliance monitoring requirements include:

- Protection monitoring during the clean-up action (human health – typically focused on worker protection);
- Performance monitoring to track progress during the clean-up action; and
- Confirmation monitoring to confirm effectiveness of the clean-up action and its effectiveness over time.

Protection monitoring is provided for the three alternatives through implementation of a Site-specific Health and Safety Plan.

The excavation of contaminated soil component of Alternatives 1 and 2 includes observations and soil sampling for both performance and confirmation monitoring. The inspection and maintenance of institutional controls provides performance monitoring for Alternatives 1 through 3. All three alternatives include groundwater compliance monitoring to monitor groundwater quality at the conditional point of compliance.

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### 9.6.2 REQUIREMENT FOR A REASONABLE RESTORATION TIMEFRAME

The timeframe for implementation of the three alternatives is estimated at between 18 months (Alternative 1) and 4 months (Alternative 3). Alternative 1 is estimated to achieve CULs in the accessible areas following excavation and disposal of accessible contaminated soil combined with implementation of institutional controls. This remedy is estimated to take up to 18 months to complete.

Alternative 2 is estimated to achieve CULs in the targeted area following excavation and disposal of designated soils and implementation of institutional controls. This remedy is estimated to take six months to complete.

Alternative 3 relies on containment and institutional controls for compliance. Achievement of cleanup is considered successful if the cap is maintained and institutional controls are implemented. Approximately three months are estimated for implementation of this remedy.

### 9.6.3 PERMANENT SOLUTIONS TO THE MAXIMUM EXTENT PRACTICABLE

Cleanup actions must be permanent to the maximum extent practicable. The following section compares the three cleanup alternatives with specific criteria to confirm cleanup actions are appropriate.

#### 9.6.3.1 Over all Protectiveness

All three of the clean-up alternatives are protective of human health and the environment and reduce the risk of posed by the complete pathway. Protectiveness is achieved through a combination of limited removal of contaminated soil (Alternatives 1 and 2 only) and/or capping/containment and implementation of institutional controls.

Alternative 1 provides protectiveness because it specifies removal of contaminated soil; however, the handling of contaminated soil by excavation workers lessens the overall protectiveness of Alternative 1. Similarly, Alternative 2 provides protectiveness because of the removal of contaminated soil and a reduction in protectiveness due to exposure to excavation workers during excavation. Alternative 3 provides protectiveness solely through the implementation of institutional controls. Alternatives 1 and 2 achieve protectiveness because of the requirement for capping and institutional controls.

Removal of contaminated soil (Alternatives 1 and 2) provides limited benefit to overall protectiveness because there is limited evidence that soil leaching is currently contributing to groundwater contamination, and the combination of capping and institutional controls essentially eliminates the risk of direct exposure in the areas where soil removal occurs.

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### 9.6.3.2 Permanence

All three alternatives provide adequate permanence primarily by maintaining a permanent physical barrier (capping) between contaminated soil and potential receptors. The removal of contaminated soils (Alternatives 1 and 2) result in additional permanence by reducing the volume of contaminants on Site.

### 9.6.3.3 Cost

Detailed cost estimates for all three alternatives are provided in **Tables 51, 52** and **53**. A summary of estimated costs for each alternative is summarized below:

- Alternative 1 ( Remedial Excavation in Accessible Areas and Containment) – \$1,800,000
- Alternative 2 (Focused Remedial Excavation and Containment) – \$280,000
- Alternative 3 (Site-Wide Capping and Containment) – \$45,000

### 9.6.3.4 Long-Term Effectiveness

All three alternatives are expected to be effective over the long term because each alternative prescribes effective measures (i.e. containment and institutional controls and limited excavation of contaminated soils). These measures are effective over the long term because they have a high certainty of success and prevent risk to human health.

The alternatives are ranked in terms of their relative effectiveness. Alternative 1 is considered the most effective because the greatest volume of contaminated soil is removed from the Site. Alternative 2 is the next most because less contaminated soil is removed. Alternative 3 is considered the least effective, relative to Alternatives 1 and 2, because of sole reliance on containment and institutional controls.

### 9.6.3.5 Management of Short-Term Risks

The short-term risk associated with each of the three alternatives is variable; in general, the more site activity, the greater the risk. Overall, short term risk can be effectively managed through construction management practices for all three alternatives.

The short-term risks are primarily associated with excavation activities (Alternatives 1 and 2). These risks are primarily related to worker exposure to hazardous substances during excavation of contaminated soil, potential airborne or waterborne releases during excavation and transport, potential accidents, damaging utilities or other infrastructure, and the transport of contaminated soil for treatment or disposal.



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Alternative 1 carries the highest short-term risk. Alternative 2 has less short-term risk due to the lower level of Site activities. Risks are will be managed through implementation of health and safety procedures, planning, identification and management of underground utilities, and monitoring during excavation. Site restoration work, including backfilling and paving, represents some short term risks. No short-term risks are associated with institutional controls; therefore, short-term risks associated with Alternative 3 are considered negligible.

### 9.6.3.6 Technical and Administrative Implementability

All three alternatives are technically feasible and can be implemented. Technical challenges are greatest with Alternative 1 because of the need for excavation in the vicinity of buildings and subsurface utilities. Alternative 2 has similar challenges; however, because there is only one excavation area associated with Alternative 2, the overall challenge is significantly lower. Alternative 3 does not pose a technical challenge. Alternatives 1 and 2 have similar permitting challenges and off-Site disposal challenges; however, Alternative 1 is more challenging because of the greater volume of soil excavated.

All three alternatives have similar administrative challenges associated with implementation of institutional controls.

## 9.7 DISPROPORTIONATE COST ANALYSIS

The DCA is summarized in **Figure 17** and detailed in this section. The benefits of each of the alternatives are ranked under the criteria specified below. The costs are then compared against these benefits, and the relationship between the costs and benefits determined in Section 9.7.3. This analysis then defines which alternative is permanent to the maximum extent practicable.

Relative rankings for the alternatives were determined by assigning a value on a scale from 1 to 10, where 10 is the highest benefit/value. Each criterion value was multiplied by a weighting factor, and the weighted values were summed to determine an overall alternative benefit ranking score. Weighting factors were based on regulatory guidance and accepted weighting factors that have been used for similar sites. The six evaluation criteria and associated weighting factors are:

- Overall protectiveness: 30 percent
- Permanence: 20 percent
- Long-term effectiveness: 20 percent
- Short-term risk management: 10 percent
- Implementability: 10 percent
- Considerations of public concerns: 10 percent

### 9.7.1 COMPARATIVE EVALUATION OF ALTERNATIVES

The DCA is a comparative analysis of the three alternatives against the six previously specified criteria. Relative rankings of each alternative against the criteria are provided in **Figure 17** and discussed as follows:

#### 9.7.1.1 Over all Protectiveness

Alternative 1 is ranked highest for protectiveness with a score of 7 out of 10 based on the relatively higher level of certainty that protectiveness will be achieved by excavation and removal of the largest volume of contaminated soil. Alternative 2 is assigned a score of 6 because relatively more contaminated soil is left on Site and the extent to which protectiveness relies on capping and institutional controls. Alternative 3 is assigned a score of 4 because of the reliance of protectiveness solely on capping and institutional controls.

#### 9.7.1.2 Permanence

Each of the three alternatives equally reduces the risk posed by contaminants through removal of soil contamination and/or maintenance of permanent physical barriers between contaminated soil and potential receptors. None of the alternatives permanently reduce the toxicity or volume of hazardous substances; they only contain the contaminants on-Site or at an appropriate off-Site disposal facility. The relative permanence of each alternative is dependent on the amount of contaminated soil removed and the amount left in place.

Alternative 1 is assigned a score of 7, Alternative 2 a score of 6, and Alternative 3 a score of 5.

#### 9.7.1.3 Long-Term Effectiveness

Each of the alternatives is expected to be effective over the long term because they each have a high certainty of success and reliability for removing and/or preventing risk of exposure to human or ecological receptors.

Alternative 1 provides the relatively highest level of long-term effectiveness because it includes removal and off-Site disposal of the largest volume of contaminated soil. Alternative 1 is therefore assigned the highest ranking of 7. Alternative 2 results in a lower volume removed and assigned a score of 6. Alternative 3 relies on capping and institutional controls for long-term effectiveness and is assigned a score of 5.

#### 9.7.1.4 Management of Short-Term Risks

The highest short-term risks are associated with excavation-related activities. Alternative 1 specifies excavation of the largest volume of soil in various locations including adjacent to buildings and in the vicinity of subsurface utilities. Alternative 1 therefore presents the highest risk and is assigned a score of 7. Alternative 2 specifies less excavation and therefore a lower risk.

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Alternative 2 is assigned a score of 8. Alternative 3 presents negligible risk and is assigned a score of 10. Note that a higher score is assigned when risks are lower.

### 9.7.1.5 Technical and Administrative Implementability

Alternative 1 is assigned the lowest score of 5 because of technical challenges associated with excavating the largest volume of soil, which results in numerous excavations adjacent to buildings and in the vicinity of subsurface utilities. Alternative 2 is assigned a score of 9 because the lower volume of soil excavation and decreased risk to buildings and subsurface utilities lessens technical challenges. Administrative implementability is roughly equivalent for each of the alternatives and does not impact the score. Alternative 3 is assigned a score of 9, the highest score, due to the lack of significant technical challenges.

### 9.7.1.6 Consideration of Public Concerns

Public concerns regarding Site clean-up will be solicited during the public comment period. Public concerns are currently unknown and a score of 10 is assigned to each alternative based on the assumption that the public will agree that each alternative is protective of human health and the environment.

This scoring may change following the public review process if concerns are raised.

### 9.7.2 Comparison of Overall Weighted Benefit Scores

Alternative 1 has the highest overall weighted benefit score of **7.1**, followed by Alternative 2 with a score of **6.9**. Alternative 3 has the lowest weighted benefit score of **6.1**.

### 9.7.3 Summary and Conclusions – Disproportionate Cost Analysis

The DCA process is applied to each of the alternatives to determine the preferred alternative. Through the DCA process, an alternative is considered impracticable if the incremental cost is disproportionately greater than the incremental benefit.

Alternative 1 (Remedial Excavation in Accessible Areas and Containment) provides the highest overall benefit of the three alternatives considered. Alternative 1 removes the largest volume of contaminated soil, which results in the greatest overall risk reduction and the relatively most permanent solution. The estimated cost to implement Alternative 1 is \$2,456,000, and the overall weighted benefit score is 7.1, resulting in a cost benefit ratio of 35 (result divided by 10,000 for brevity).

Alternative 1 is relatively the most permanent alternative, thus the relative benefits and costs of the other two alternatives are compared to Alternative 1 in order to determine which alternative is permanent to the maximum extent practicable.

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Alternative 2 (Focused Remedial Excavation and Containment) has an overall benefits score of 6.9, which is 4% lower than Alternative 1. The costs of Alternative 2, however, are much lower - less than a quarter of the costs for Alternative 1. The actual cost difference is \$1,911,000 (\$2,456,000 for Alternative 1 and \$545,000 for Alternative 2). The increased cost to complete Alternative 1 is significant and considered disproportionate to the incremental increase in benefit (7.1 for Alternative 1 and 6.9 for Alternative 2). Alternative 1 is therefore considered impracticable and not considered further as a viable alternative.

Alternative 3 (Containment with Institutional Controls) has an overall benefit score of 6.1, which is 14% lower than Alternative 1. The costs of Alternative 3 are the lowest of the three - 96% lower than Alternative 1. In comparison to Alternative 2, Alternative 3 provides significantly less benefit (6.1 for Alternative 3 vs 6.9 for Alternative 2) at a savings of \$454,000 (\$545,000 for Alternative 2 vs \$91,000 for Alternative 3).

Based on the relative cost and benefits, Alternative 2 is not considered disproportionate relative to the increase in benefit. Therefore, Alternative 2 is considered the FS alternative that is permanent to the maximum extent practicable.

### 9.7.3.1 PREFERRED ALTERNATIVE

Alternative 2 is the preferred alternative and consists of the following:

- Focused remedial excavation in one area completed in coordination with stormwater line replacement and remedial excavation work at the neighboring Ameron property. Off-site disposal of excavated soil at an appropriately permitted solid waste management facility.
- Containment combined with inspection and maintenance of impermeable surfaces over areas of remaining soil contamination.
- Institutional controls to ensure integrity of the impermeable surfaces remain intact and effective. A SMP is included and will ensure construction workers and other facility employees are not exposed to contaminated media without proper management and precautions.
- Groundwater performance monitoring.

### 9.7.3.2 IMPLEMENTATION OF SITE CLEANUP

A DRAFT CAP, which features the selected cleanup action, will be prepared. The CAP will describe the cleanup action and specify cleanup standards and compliance monitoring requirements. The CAP will be presented for a 30-day public review period. Following public review, the CAP will be finalized and cleanup action will be implemented.

## REMEDIAL INVESTIGATION/FEASIBILITY STUDY

References  
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### 10.0 REFERENCES

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Pinnacle 2010. Historical Site Development Analysis North Marina Ameron/Hulbert Site Everett, Washington. Pinnacle GeoSciences. May 11, 2010.

Stantec 2011a. Remedial Investigation and Feasibility Study Work Plan-Final, 1032 West Marine View Drive, Everett, Washington. Stantec Consulting Services, Inc. January 31, 2011.

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**TABLES**

Table 1. Preliminary Screening Levels (PSLs) for Soil Volatile Organic Compounds - EPA Method 8260								
Analyte	Target Concentration used in the 3-Phase Model (µg/l) <sup>1</sup>	Basis for the selected 3-Phase Model Target Concentration <sup>2</sup>	MTCA Soil Levels Protective of Groundwater as Surface Water (3-phase model, mg/kg) <sup>3</sup>	MTCA Method B (direct contact, mg/kg) <sup>1,4</sup>	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg) <sup>5</sup>	
Dichlorodifluoromethane (CFC-12)	1,600.00	Groundwater Cleanup Level	NC	16,000.000	0.06	0.0017	16000	
Chloromethane	132.95	MTCA B Surface Water - Carc.	NC	76.900	0.06	0.0016	76.9	
Vinyl chloride	2.40	Marine Human Health Protection - 304	0.015	0.667	0.002	0.0013	0.015	
Bromomethane	967.90	MTCA B Surface Water - Non-Carc.	4.480	112.000	0.09	0.0011	4.48	
Chloroethane	15.10	Groundwater Cleanup Level	NC	345.000	0.06	0.0002	345	
Trichlorofluoromethane (CFC-11)	2,400.00	Groundwater Cleanup Level	NC	24,000.000	0.05	0.0004	24,000	
1,1-Dichloroethene	3.20	Marine Human Health Protection - NTR	0.023	4,000.000	0.05	0.0003	0.05	
Methylene chloride	590.00	Marine Human Health Protection - 304	2.570	133.000	0.02	0.0000	2.6	
trans-1,2-Dichloroethene	10,000.00	Marine Human Health Protection - 304	54.300	1,600.000	0.02	0.0002	54.3	
1,1-Dichloroethane	1,600.00	Groundwater Cleanup Level	8.730	16,000.000	0.02	0.0002	8.7	
2,2-Dichloropropane	NA	---	NC	NA	0.05	0.0005	0.05	
cis-1,2-Dichloroethene	70.00	Groundwater Cleanup Level	0.350	800.000	0.02	0.0006	0.35	
Chloroform	470.00	Marine Human Health Protection - 304	2.500	164.000	0.02	0.0022	2.5	
1,1-Dichloropropene	NA	---	NC	NA	0.02	0.0038	0.02	
Carbon tetrachloride	1.60	Marine Human Health Protection - 304	0.015	7.690	0.02	0.0038	0.02	
1,1,1-Trichloroethane (TCA)	926,000.00	MTCA B Surface Water - Non-Carc.	7,340.000	160,000.000	0.02	0.0002	2	
Benzene	51.00	Marine Human Health Protection - 304	0.287	18.200	0.02	0.0002	0.3	
1,2-Dichloroethane (EDC)	37.00	Marine Human Health Protection - 304	0.179	11.000	0.03	0.0002	0.18	
Trichloroethene (TCE)	30.00	Marine Human Health Protection - 304	0.198	11.000	0.03	0.0003	0.2	
1,2-Dichloropropane	15.00	Marine Human Health Protection - 304	0.077	14.700	0.02	0.0001	0.07	
Dibromomethane	80.00	Groundwater Cleanup Level	NC	800.000	0.04	0.0003	800	
Bromodichloromethane	17.00	Marine Human Health Protection - 304	0.086	16.100	0.02	0.0003	0.09	
cis-1,3-Dichloropropene	a	21.00	Marine Human Health Protection - 304	0.122	5.560	0.02	0.0002	0.12
Toluene	15,000.00	Marine Human Health Protection - 304	109.000	6,400.000	0.02	0.0008	109	
trans-1,3-Dichloropropene	a	21.00	Marine Human Health Protection - 304	0.122	5.560	0.03	0.0001	0.12
1,1,1-Trichloroethane	16.00	Marine Human Health Protection - 304	0.089	17.500	0.03	0.0003	0.09	
Tetrachloroethene (PCE)	3.30	Marine Human Health Protection - 304	0.035	1.850	0.02	0.0003	0.04	
1,3-Dichloropropane	NA	---	NC	1,600.000	c	0.05	0.0001	1600
Dibromochloromethane	13.00	Marine Human Health Protection - 304	0.069	11.900	0.03	0.0002	0.07	
1,2-Dibromoethane (EDB)	0.05	Groundwater Cleanup Level	NC	0.500	0.005	0.0002	0.5	
Chlorobenzene	1,600.00	Marine Human Health Protection - 304	14.000	1,600.000	0.02	0.0002	14	
1,1,1,2-Tetrachloroethane	1.68	Groundwater Cleanup Level	NC	38.500	0.03	0.0002	38.5	
Ethylbenzene	2,100.00	Marine Human Health Protection - 304	18.100	8,000.000	0.03	0.0003	18.1	
m,p Xylenes	b	1,600.00	Groundwater Cleanup Level	14.600	16,000.000	0.03	0.0003	14.6
o Xylene	16,000.00	Groundwater Cleanup Level	147.000	160,000.000	0.03	0.0003	147	
Total Xylenes	1,600.00	Groundwater Cleanup Level	14.600	16,000.000	0.03	0.0003	14.6	
Styrenes	1.46	Groundwater Cleanup Level	0.033	33.300	0.02	0.0003	0.03	
Bromoform	140.00	Marine Human Health Protection - 304	0.918	127.000	0.02	0.0009	0.92	
Isopropylbenzene	800.00	Groundwater Cleanup Level	NC	8,000.000	0.08	0.0003	8,000	
1,2,3-Trichloropropane	0.01	Groundwater Cleanup Level	NC	0.143	0.02	0.0005	0.14	
Bromobenzene	NA	---	NC	300.000	c	0.03	0.0002	300
1,1,2,2-Tetrachloroethane	4.00	Marine Human Health Protection - 304	0.022	5.000	0.02	0.0003	0.02	
n-Propylbenzene	NA	---	NC	NA	0.02	0.0003	0.02	
2-Chlorotoluene	160.00	Groundwater Cleanup Level	NC	1,600.000	0.02	0.0004	1,600	
4-Chlorotoluene	NA	---	NC	5,500.000	c	0.02	0.0003	5500
1,3,5-Trimethylbenzene	400.00	Groundwater Cleanup Level	NC	4,000.000	0.02	0.0004	4,000	
tert-Butylbenzene	NA	---	NC	NA	0.02	0.0003	0.02	
1,2,4-Trimethylbenzene	400.00	Groundwater Cleanup Level	NC	4,000.000	0.02	0.0004	4,000	
sec-Butylbenzene	NA	---	NC	NA	0.02	0.0004	0.02	
1,3-Dichlorobenzene	960.00	Marine Human Health Protection - 304	NC	NA	0.02	0.0002	0.02	
4-Isopropyltoluene	NA	---	NC	NA	0.02	0.0004	0.02	
1,4-Dichlorobenzene	4.86	MTCA B Surface Water - Carc.	0.080	41.700	0.02	0.0002	0.08	
1,2-Dichlorobenzene	1,300.00	Marine Human Health Protection - 304	15.230	7,200.000	0.02	0.0003	15.23	
n-Butylbenzene	NA	---	NC	NA	0.02	0.0004	0.02	
1,2-Dibromo-3-Chloropropane	0.20	Groundwater Cleanup Level	NC	0.714	0.03	0.0002	0.71	
1,2,4-Trichlorobenzene	70.00	Marine Human Health Protection - 304	2.610	800.000	0.05	0.0004	2.6	
Hexachloro-1,3-butadiene	18.00	Marine Human Health Protection - 304	19.414	12.800	0.10	0.0003	12.8	
Naphthalene	4,938.27	MTCA B Surface Water - Non-Carc.	137.552	1,600.000	0.03	0.0003	137	
1,2,3-Trichlorobenzene	NA	---	NC	49.000	c	1.0	0.0002	49

**Notes:**

<sup>1</sup> Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MTCA B risk-based cleanup level adjusted to a 1E-05 cancer risk.

<sup>3</sup> Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the modeling.

<sup>4</sup> The minimum cancer or non-cancer based MTCA B value was selected.

<sup>5</sup> The preliminary screening level is based on the minimum value between MTCA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the

a = 1,3-Dichloropropene was used as a surrogate.

b = Total xylenes was used as a surrogate.

c = In the absence of a MTCA A or B value, the EPA Region 9 preliminary remediation goal (PRG) for residential soil was used (May 2010 EPA Region 9 PRG Table).

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

NA = Not available

Groundwater Cleanup Level = Minimum value between applicable groundwater ARARs and MTCA B groundwater ingestion risk-based values.

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Table 2. Preliminary Screening Levels (PSLs) for Soil							
Tributyl Tin Ion (as Tributyl Tin Oxide) by EPA Method SW-846-8270D							
Analyte	Surface Water Target Concentration used in the 3-Phase Model (µg/L) <sup>1</sup>	Basis for the selected Surface Water Target Concentration <sup>4</sup>	MTCA Soil Levels Protective of Groundwater as Surface Water (3-phase model, µg/kg) <sup>2,3</sup>	MTCA Method B (direct contact, µg/kg) <sup>4</sup>	Soil MRL	SOIL MDL	Preliminary Screening Level (µg/kg) <sup>5</sup>
					µg/kg	µg/kg	
Tributyl Tin (as TBT Ion)	0.010	Marine Chronic AWQC - 304	7,400	23,400,000	1.773	4,000	7400

**Notes:**

<sup>1</sup> Soil and surface water preliminary screening levels were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> Soil concentrations protection of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the modeling.

<sup>3</sup> TBT ion value calculated a recommended by Ecology a using marine surface water standard of 0.01 ug/l for TBT oxide; the TBT ion value is based on the weights of one mole of TBTO and two moles of TBT ion.

<sup>4</sup> The screening level in CLARC is for tributyl tin oxide (TBTO) and was calculated using an oral RfD of 0.0003 mg/kg-day. A TBT Ion value was calculated as recommended by Ecology based on weights of one mole TBTO and two moles of TBT ion.

<sup>5</sup> The preliminary screening level is based on the minimum value between MTCA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the minimum screening level.

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

Marine Chronic AWQC - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the protection of marine water aquatic organisms.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act



Table 3. Preliminary Screening Levels (PSLs) for Soil Semi-volatile organic compounds by EPA Method 8270							
Analyte	Target Concentration used in the 3-Phase Model (µg/L) <sup>1</sup>	Basis for the selected 3-Phase Model Target Concentration <sup>2</sup>	MICA Soil Levels Protective of Groundwater as Surface Water (3-phase model, mg/kg) <sup>3</sup>	MICA Method B (direct contact, mg/kg) <sup>1,4</sup>	Soil MRL	Soil MDL	Preliminary Screening Level (mg/kg) <sup>5</sup>
					mg/kg	mg/kg	
1,2,4-Trichlorobenzene	70,000	Marine Human Health Protection - 304	2,610	800,000	0.1	0.005	2.6
1,2-Dichlorobenzene	1,300,000	Marine Human Health Protection - 304	15,230	7,200,000	0.1	0.003	15.2
1,2-Dinitrobenzene	6,400	Groundwater Cleanup Level	NC	32,000	0.1	0.005	32
1,3-Dichlorobenzene	960,000	Marine Human Health Protection - 304	NC	NA	0.1	0.003	0.1
1,3-Dinitrobenzene	1,600	Groundwater Cleanup Level	NC	8,000	0.5	0.009	8
1,4-Dichlorobenzene	4,857	MICA B Surface Water Carc.	0.080	41,700	0.1	0.003	0.1
1,4-Dinitrobenzene	6,400	Groundwater Cleanup Level	NC	32,000	0.5	0.009	32
1-Methylnaphthalene	NA	---	NC	NA	0.1	0.005	0.1
2,3,4,6-Tetrachlorophenol	480,000	Groundwater Cleanup Level	NC	2,400,000	0.1	0.005	2400
2,3,5,6-Tetrachlorophenol	NA	---	NC	NA	0.1	0.006	0.1
2,4,5-Trichlorophenol	3,600,000	Marine Human Health Protection - 304	129,385	8,000,000	0.2	0.011	129.4
2,4,6-Trichlorophenol	2,400	Marine Human Health Protection - 304	0.028	90,100	0.2	0.010	0.2
2,4-Dichlorophenol	191,100	MICA B Surface Water Non-Carc	1,326	240,000	0.2	0.004	1.3
2,4-Dimethylphenol	552,792	MICA B Surface Water Non-Carc	4,522	1,600,000	0.1	0.003	4.5
2,4-Dinitrophenol	3,456,790	MICA B Surface Water Non-Carc	13,828	160,000	0.2	0.009	13.8
2,4-Dinitrotoluene	3,400	Marine Human Health Protection - 304	0.020	160,000	0.1	0.005	0.1
2,6-Dinitrotoluene	16,000	Groundwater Cleanup Level	0.086	80,000	0.1	0.005	0.1
2-Chloronaphthalene	1,026,769	MICA B Surface Water Non-Carc	NC	6,400,000	0.1	0.004	6,400
2-Chlorophenol	96,739	MICA B Surface Water Non-Carc	1,140	400,000	0.1	0.005	1.1
2-Methylnaphthalene	32,000	Groundwater Cleanup Level	NC	320,000	0.1	0.006	320
2-Methylphenol (o-cresol)	400,000	Groundwater Cleanup Level	2,330	4,000,000	0.1	0.005	2.3
2-Nitroaniline	NA	---	NC	NA	0.5	0.004	0.5
2-Nitrophenol	NA	---	NC	NA	0.2	0.006	0.2
3-Methylphenol (m-cresol)	400,000	Groundwater Cleanup Level	NC	4,000,000	0.1	0.005	4,000
3-Nitroaniline	NA	---	NC	NA	0.5	0.006	0.5
4,6-Dinitro-2-methylphenol	NA	---	NC	4,900	0.2	0.012	4.9
4-Bromo phenyl phenyl ether	NA	---	NC	NA	0.1	0.007	0.1
4-Chloro-3-methylphenol	NA	---	NC	6,100,000	0.5	0.004	6100
4-Chloroaniline	32,000	Groundwater Cleanup Level	0.170	320,000	0.5	0.005	0.5
4-Chlorophenyl phenyl ether	NA	---	NC	NA	0.1	0.007	0.1
4-Methylphenol (p-cresol)	40,000	Groundwater Cleanup Level	NC	400,000	0.1	0.005	400
4-Nitrophenol	NA	---	NC	NA	0.5	0.005	0.5
Aniline	7,700	Groundwater Cleanup Level	NC	175,000	0.2	0.004	175
Azobenzene	0,800	Groundwater Cleanup Level	NC	9,090	0.1	0.002	9.1
Benzoic Acid	64000,000	Groundwater Cleanup Level	257	320000	0.2	0.013	257
Benzyl alcohol	2,400,000	Groundwater Cleanup Level	NC	24,000,000	0.1	0.005	24,000
Benzyl Butyl phthalate	1260,000	MICA B Surface Water Non-Carc	351	16,000	0.1	0.004	351
bis (2-Ethylhexyl) adipate	400,000	Groundwater Cleanup Level	NC	833	0.1	0.007	833
bis (2-Ethylhexyl) phthalate	2,200	Marine Human Health Protection - 304	4.9	71.4	0.1	0.005	4.9
Bis(2-chloroethoxy)methane	NA	---	NC	180,000	0.1	0.004	180
Bis(2-chloroethyl)ether	0,530	Marine Human Health Protection - 304	0.003	0,990	0.2	0.005	0.2
Bis(2-chloroisopropyl)ether	41,985,305	MICA B Surface Water Non-Carc	NC	3,200,000	0.1	0.018	3,200
Carbazole	4,400	Groundwater Cleanup Level	0.314	50	0.5	0.004	0.5
Dibenzofuran	32,000	Groundwater Cleanup Level	NC	160,000	0.1	0.003	160
Diethylphthalate	28,411,974	MICA B Surface Water Non-Carc	160,244	64,000,000	0.1	0.004	160.2
Dimethylphthalate	72,016,461	MICA B Surface Water Non-Carc	NC	80,000,000	0.1	0.005	80,000
Di-n-butylphthalate	2913,025	MICA B Surface Water Non-Carc	103	8,000	0.1	0.004	103
Di-n-octyl phthalate	320,000	Groundwater Cleanup Level	532,000	1,600	0.1	0.004	1,600
Diphenylamine	2,160,494	MICA B Surface Water Non-Carc	NC	2,000,000	0.5	0.003	2,000
Hexachlorobenzene	0,00029	Marine Human Health Protection - 304	0,0005	0,625	0.1	0.004	0.1
Hexachlorobutadiene	18,000	Marine Human Health Protection - 304	19,414	12,800	0.1	0.005	12.8
Hexachlorocyclopentadiene	1,100,000	Marine Human Health Protection - 304	4,406,516	480,000	0.1	0.008	480
Hexachloroethane	3,300	Marine Human Health Protection - 304	0,132	71,400	0.1	0.004	0.1
Isophorone	600,000	Marine Human Health Protection - NTR	2,962	1,050,000	0.1	0.002	3
Nitrobenzene	448,545	MICA B Surface Water Non-Carc	2,862	40,000	0.2	0.004	2.9
N-Nitroso-di-n-propylamine	0,510	Marine Human Health Protection - 304	0,002	0,143	0.1	0.003	0.1
Pentachlorophenol	3,000	Marine Human Health Protection - 304	0,048	8,330	0.2	0.003	0.2
Phenol	1,100,000,000	MICA B Surface Water Non-Carc	5,084,476	48,000,000	0.2	0.004	5084.5

**Notes:**

- Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)
- The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MICA B risk-based cleanup level adjusted to a 1E-05 cancer risk.
- Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the modeling.
- The minimum cancer or non-cancer based MICA B value was selected.
- The preliminary screening level is based on the minimum value between MICA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the minimum screening level.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MICA = Model Toxics Control Act

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

NA = Not available

PAH = Polycyclic Aromatic Hydrocarbons

Groundwater Cleanup Level = Minimum value between applicable groundwater ARARs and MICA B groundwater ingestion risk-based values.

MICA B Surface Water - Carc. = MICA B surface water cleanup level based on carcinogenic risk.

MICA B Surface Water - Non-Carc. = MICA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Marine Human Health Protection - NTR = EPA National Toxics Rule Criteria identified in CLARC for the consumption of organisms.

Table 4. Preliminary Screening Levels (PSLs) for Soil					
Hydrocarbons by NWTPH Methods					
Diesel range petroleum hydrocarbons by NWTPH-Dx					
Analyte	MTCA Method A (mg/kg)	MTCA Method B (direct contact, mg/kg)	Soil MRL	Soil MDL	Preliminary Screening Level (mg/kg)
			mg/kg	mg/kg	
Diesel (Fuel Oil)	2,000	NR	20	9.6	2,000
Heavy Oil	2,000	NR	50	16	2,000
Mineral Oil	4,000	NR	50	16	4,000
Gasoline range petroleum hydrocarbons by NWTPH-Gx					
Analyte	MTCA Method A (mg/kg)	MTCA Method B (direct contact, mg/kg)	Soil MRL	MDL	Preliminary Screening Level (mg/kg)
			mg/kg	mg/kg	
Gasoline	100	NR	5.0	0.405	100
Gasoline (benzene present)	30	NR	5	0.405	30

<sup>1</sup> Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MTCA B risk-based cleanup level adjusted to a 1E-05 cancer risk.

<sup>3</sup> Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the model.

<sup>4</sup> The minimum cancer or non-cancer based MTCA B value was selected.

<sup>5</sup> The preliminary screening level is based on the minimum value between MTCA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the minimum screening level.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

NA = Not available

Groundwater Cleanup Level = Minimum value between applicable groundwater ARARs and MTCA B groundwater ingestion risk-based values.

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Table 5. Preliminary Screening Levels (PSLs) for Soil Polychlorinated biphenyls (PCBs) by EPA Method 8082							
Analyte	Target Concentration used in the 3-Phase Model (µg/L) <sup>1</sup>	Basis for the selected 3-Phase Model Target Concentration <sup>2</sup>	MTCA Soil Levels Protective of Groundwater as Surface Water (3-phase model, mg/kg) <sup>3</sup>	MTCA Method B (direct contact, mg/kg)	Soil MRL	MDL	Preliminary Screening Level (mg/kg) <sup>4</sup>
					mg/kg	mg/kg	
Aroclor 1016	0.006	MTCA B Surface Water Non-Carc.	NC	5.6	0.1	0.051	Total PCBs
Aroclor 1221	NA	---	NC	NA	0.1	0.043	Total PCBs
Aroclor 1232	NA	---	NC	NA	0.1	0.008	Total PCBs
Aroclor 1242	NA	---	NC	NA	0.1	0.067	Total PCBs
Aroclor 1248	NA	---	NC	NA	0.1	0.044	Total PCBs
Aroclor 1254	0.002	MTCA B Surface Water Non-Carc.	NC	1.6	0.1	0.088	Total PCBs
Aroclor 1260	0.03	Marine Chronic AWQC-NTR	NC	NR	0.1	0.051	Total PCBs
Total PCBs	0.000064	Marine Human Health Protection 304	NC	0.5/1 <sup>a</sup>	0.1	0.088	1

**Notes:**

<sup>1</sup> Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MTCA B risk-based cleanup level adjusted to a 1E-05 cancer risk.

<sup>3</sup> Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the modeling.

<sup>4</sup> Selected cleanup standard is based on the federal criteria because it represents an acceptable risk less than  $1 \times 10^{-5}$ , consistent with WAC 173-340-740(3)(b)(i).

<sup>a</sup> = MTCA direct contact cleanup level/federal Toxics Substance Control Act (TSCA; 40 CFR Part 761.61) cleanup standard for high occupancy areas.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act

NA = Not available

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Marine Chronic AWQC-NTR = EPA National Toxics Rule Criteria identified in CLAR for the protection of aquatic organisms

Table 6. Preliminary Screening Levels (PSLs) for Soil Metals in soil by EPA Method 6020/200.8								
Analyte	Target Concentration used in the 3-Phase Model (µg/L) <sup>1</sup>	Basis for the selected 3-Phase Model Target Concentration <sup>2</sup>	MTCA Soil Levels Protective of Groundwater as Surface Water (3-phase model, mg/kg) <sup>3</sup>	MTCA Method B (direct contact, mg/kg) <sup>1,4</sup>	90% Percentile Background	Soil MRL	MDL	Preliminary Screening Level (mg/kg) <sup>5</sup>
						mg/kg	mg/kg	
Antimony	640	Marine Human Health 304	578.56	32	NA	0.2	4.1	32
Arsenic	0.14	Marine Human Health Protection - 304	0.08	24/20 <sup>a</sup>	7.3	0.1	93.7	20
Beryllium	272.904	MTCA B Surface Water Non-Carc.	4312.982	160	0.61	0.2	21.4	160
Cadmium	8.8	Marine Chronic AWQC - 304	1.2	80	0.77	0.2	21.7	1.2
Chromium III	243055.556	MTCA B Surface Water Non-Carc.	4862083.333	120000	48	0.1	57.0	120,000
Chromium VI	50	Marine Chronic AWQC - 201A WAC	19.2	240	NA	1	1.0	19
Copper	2.4	Marine Chronic AWQC - NTR	1.066	3000	36.4	0.2	36.0	36
Lead	8.1	Marine Chronic AWQC - 201A WAC	1620.32	250 <sup>b</sup>	24	0.2	19.4	250
Mercury	0.025	Marine Chronic AWQC - 201A WAC	0.026	24	0.07	0.2	5.2	0.2
Nickel	8.2	Marine Chronic AWQC - 201A WAC	10.693	1600	47.8	0.1	37.9	47.8
Selenium	71	Marine Chronic AWQC - 201A WAC	7.384	400	RND	0.5	370.5	7.4
Silver	25925.926	MTCA B Surface Water - Non-Carc.	4407.407	400	RND	0.1	3.6	400
Thallium	0.47	Marine Human Health 304	0.669	5.6	RND	0.2	2.9	0.7
Zinc	81	Marine Chronic AWQC - 201A WAC	100.764	24000	85.1	0.4	114.2	100.8

**Notes:**

<sup>1</sup> Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MTCA B risk-based cleanup level adjusted to a 1E-05 cancer risk.

<sup>3</sup> Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the modeling.

<sup>4</sup> The minimum cancer or non-cancer based MTCA B value was selected.

<sup>5</sup> The preliminary screening level is based on the minimum value between MTCA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the minimum screening level.

a = Arsenic level is based on direct contact based upon MTCA Method A parameter criteria.

b = Lead level is based upon MTCA Method A parameter criteria.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

NA = Not available

Groundwater Cleanup Level = Minimum value between applicable groundwater ARARs and MTCA B groundwater ingestion risk-based values.

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Table 7. Preliminary Screening Levels (PSLs) for Soil Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270							
Analyte	Target Concentration used in the 3-Phase Model (µg/L) <sup>1</sup>	Basis for the selected 3-Phase Model Target Concentration <sup>2</sup>	MTCA Soil Levels Protective of Groundwater as Surface Water (3-phase model, mg/kg) <sup>3</sup>	MTCA Method B (direct contact, mg/kg) <sup>1,4</sup>	Soil MRL	SOIL MDL	Preliminary Screening Level (mg/kg) <sup>5</sup>
					mg/kg	mg/kg	
Acenaphthene	642.8	MTCA B Surface Water Non-Carc	65.546	4,800	0.1	0.006	65.5
Acenaphthylene	NA	---	NC	NR	0.1	0.004	0.1
Anthracene	25,925.9	MTCA B Surface Water Non-Carc	12285.379	24,000	0.1	0.0	12,285
Benzo(a)anthracene	0.018	Marine Human Health Protection - 304	0.129	TEQ	0.08	0.007	TEQ
benzo(a)pyrene	0.018	Marine Human Health Protection - 304	0.349	0.14	0.08	0.004	0.14
benzo(b)fluoranthene	0.018	Marine Human Health Protection - 304	0.443	TEQ	0.08	0.005	TEQ
Benzo(g,h,i)perylene	NA	---	NC	NR	0.08	0.004	0.08
benzo(k)fluoranthene	0.018	Marine Human Health Protection - 304	0.443	TEQ	0.08	0.006	TEQ
Chrysene	0.018	Marine Human Health Protection - 304	0.143	TEQ	0.08	0.003	TEQ
Dibenzo(a,h)anthracene	0.018	Marine Human Health Protection - 304	0.644	TEQ	0.08	0.003	TEQ
Fluoranthene	90.2	MTCA B Surface Water Non-Carc	88.9	3,200	0.1	0.005	88.9
Fluorene	3,456.8	MTCA B Surface Water Non-Carc	546.672	3,200	0.1	0.004	546.7
Indeno(1,2,3-cd)pyrene	0.018	Marine Human Health Protection - 304	1.25	TEQ	0.08	0.004	TEQ
Naphthalene	4,938.3	MTCA B Surface Water Non-Carc	137.552	1,600	0.1	0.004	138
Phenanthrene	NA	---	NC	NR	0.1	0.004	0.1
Pyrene	2,592.6	MTCA B Surface Water Non-Carc	3,540	2,400	0.1	0.002	2,400

**Notes:**

<sup>1</sup> Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> The minimum applicable surface water protection criteria were used in the 3-phase model if available. Otherwise, the target concentration was based on applicable minimum potable groundwater standards. Note, the target concentration used in the model was based on an established ARAR if it was less than the calculated MTCA B risk-based cleanup level adjusted to a 1E-05 cancer risk.

<sup>3</sup> Soil concentrations protective of groundwater as surface water were calculated using Ecology's fixed parameter three-phase partitioning model. Ecology default values were used in the model.

<sup>4</sup> The minimum cancer or non-cancer based MTCA B value was selected. The cleanup level for carcinogenic PAHs will be based upon toxicity equivalency criteria as compared to benzo(a)pyrene per WAC 173-340-708.

<sup>5</sup> The preliminary screening level is based on the minimum value between MTCA B and the groundwater as surface water protection value. The MRL was selected as the screening level if it was greater than the minimum screening level.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10.

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

MTCA = Model Toxics Control Act

NA = Not available

NC = No cleanup level protective of groundwater was calculated using Ecology's 3-phase partitioning model due to lack of available chemical-specific data or an applicable target concentration.

PAH = Polycyclic Aromatic Hydrocarbons

TEQ - Toxicity Equivalents

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Table 8. Preliminary Screening Levels for Water							
Analyte	Applicable Surface Water ARAR (µg/L)1	Basis for Surface Water ARAR	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA B Groundwater (if surface water standards are absent only) (µg/L)2	Water MRL µg/L	Water MDL µg/L	PSL (µg/L)3
Dichlorodifluoromethane (CFC-12)	NA	NAA	NA	1,600	1.0	0.833	1,600.00
Chloromethane	133	MTCA Method B	133	NA	1.0	0.816	133.00
Vinyl chloride	2	Marine Human	4	NA	0.2	0.670	2.40
Bromomethane	968	MTCA Method B	968	NA	1.0	0.550	967.90
Chloroethane	NA	NAA	NA	15	1.0	0.101	15.10
Trichlorofluoromethane (CFC-11)	NA	NAA	NA	2,400	1.0	0.209	2,400.00
1,1-Dichloroethene	3	Marine Human	23,100	NA	1.0	0.130	3.20
Methylene chloride	590	Marine Human	960	NA	1.0	0.015	590.00
trans-1,2-Dichloroethene	10,000	Marine Human	32,800	NA	1.0	0.113	10,000.00
1,1-Dichloroethane	NA	NAA	NA	1,600	1.0	0.120	1,600.00
2,2-Dichloropropane	NA	NAA	NA	NA	2.0	0.255	2.00
cis-1,2-Dichloroethene	NA	NAA	NA	70	1.0	0.294	70.00 d
Chloroform	470.00*	Marine Human	283	NA	1.0	1.106	470.00 c
1,1-Dichloropropene	NA	NAA	NA	NA	1.0	1.896	1.00
Carbon tetrachloride	2	Marine Human	3	NA	1.0	1.896	1.60
1,1,1-Trichloroethane (TCA)	926,000	MTCA Method B	926,000	NA	1.0	0.080	926,000.00
Benzene	51	Marine Human	23	NA	1.0	0.125	51.00 c
1,2-Dichloroethane (EDC)	37	Marine Human	59	NA	1.0	0.084	37.00
Trichloroethene (TCE)	30	Marine Human	7	NA	1.0	0.172	30.00 c
1,2-Dichloropropane	15	Marine Human	23	NA	1.0	0.073	15.00
Dibromomethane	NA	NAA	NA	80	1.0	0.134	80.00
Bromodichloromethane	17	Marine Human	28	NA	1.0	0.137	17.00
cis-1,3-Dichloropropene	a	Marine Human	19	NA	1.0	0.095	21.00
Toluene	15,000	Marine Human	18,900	NA	1.0	0.415	15,000.00
trans-1,3-Dichloropropene	a	Marine Human	19	NA	1.0	0.059	21.00
1,1,2-Trichloroethane	16	Marine Human	25	NA	1.0	0.154	16.00
Tetrachloroethene (PCE)	3.3*	Marine Human	0	NA	1.0	0.140	0.40
1,3-Dichloropropane	NA	NAA	NA	NA	1.0	0.072	1.00
Dibromochloromethane	13	Marine Human	21	NA	1.0	0.119	13.00
1,2-Dibromoethane (EDB)	NA	NAA	NA	0	0.01	0.010	0.05 e
Chlorobenzene	1,600	Marine Human	5,030	NA	1.0	0.112	1,600.00
1,1,1,2-Tetrachloroethane	NA	NAA	NA	2	1.0	0.122	1.70
Ethylbenzene	2,100	Marine Human	6,910	NA	1.0	0.170	2,100.00
m,p Xylenes	NA	NAA	NA	16,000	1.0	0.162	16,000.00
o Xylene	NA	NAA	NA	16,000	1.0	0.167	16,000.00
Total Xylenes	b	NAA	NA	1,600	1.0	0.162	1,600.00
Styrenes	NA	NAA	NA	1	1.0	0.126	1.50
Bromoform	140	Marine Human	219	NA	1.0	0.432	140.00
Isopropylbenzene	NA	NAA	NA	800	2.0	0.169	800.00
1,2,3-Trichloropropane	NA	NAA	NA	0	1.0	0.225	1.00
Bromobenzene	NA	NAA	NA	NA	1.0	0.104	1.00
1,1,2,2-Tetrachloroethane	4	Marine Human	6	NA	1.0	0.162	4.00
n-Propylbenzene	NA	NAA	NA	NR	1.0	0.162	1.00
2-Chlorotoluene	NA	NAA	NA	160	1.0	0.209	160.00
4-Chlorotoluene	NA	NAA	NA	NA	1.0	0.166	1.00
1,3,5-Trimethylbenzene	NA	NAA	NA	400	1.0	0.199	400.00
tert-Butylbenzene	NA	NAA	NA	NR	1.0	0.173	1.00
1,2,4-Trimethylbenzene	NA	NAA	NA	400	1.0	0.194	400.00
sec-Butylbenzene	NA	NAA	NA	NR	1.0	0.194	1.00
1,3-Dichlorobenzene	940	Marine Human	NA	NA	1.0	0.121	940.00
4-Isopropyltoluene	NA	NAA	NA	NA	1.0	0.179	1.00
1,4-Dichlorobenzene	5	MTCA Method B	5	NA	1.0	0.121	4.90
1,2-Dichlorobenzene	1,300	Marine Human	4,200	NA	1.0	0.142	1,300.00
n-Butylbenzene	NA	NAA	NA	NR	1.0	0.210	1.00
1,2-Dibromo-3-Chloropropane	NA	NAA	NA	0	1.0	0.085	1.00 e
1,2,4-Trichlorobenzene	70	Marine Human	227	NA	2.0	0.198	70.00
Hexachloro-1,3-butadiene	18	Marine Human	30	NA	4.0	0.130	18.00
Naphthalene	4,938	MTCA Method B	4,938	NA	4.0	0.160	4,938.00
1,2,3-Trichlorobenzene	NA	NAA	NA	NA	4.0	0.105	4.00

**NOTES:**

- 1 = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)
- 2 = The minimum between carcinogen or non-carcinogen number was selected
- 3 = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.
- a = 1,3-Dichloropropene was used as a surrogate, b = Total xylenes was used as a surrogate.
- c = Value based upon Surface Water ARAR - Human Health - Marine - Clean Water Act §304 (µg/L) per Federal ARAR because it is considered sufficiently protective of human health for carcinogens as described in WAC 173-340-730(3) d = Value based upon Federal Maximum Contaminant Drinking Water Levels or Goals ARAR
- e = Value selected because the MTCA B value, when adjusted to 1e-05 risk is less than the MCL; the MCL was selected

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Reference for Surface Water ARAR	Table 9. Preliminary Screening Levels for PSLs for Water				Water MRL		PSL(µg/L) <sup>3</sup>
			Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA A Groundwater (if surface water standards are absent only)	MTCA B Groundwater (if surface water standards are absent only) (µg/L) <sup>2</sup>	µg/L	µg/L		
						µg/L	µg/L		
Tributyl Tin Ion (as TBT Ion)	0.010	Marine Chronic AWQC - 304	NR	NA	NA	0.2	0.103	0.2	

**NOTES:**

1 = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10). 2 = The minimum between carcinogen or non-carcinogen number was selected.

2 = The minimum between carcinogen or non-carcinogen number was selected.

3 = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

NR = Data was not researched in this database

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Chronic AWQC - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

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Table 10. Preliminary Screening Levels Semi-volatile organic compounds by EPA Method 8270							
Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Reference for Surface Water ARAR	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA B Groundwater (if surface water standards are absent only) (µg/L) <sup>2</sup>	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L) <sup>3</sup>
1,2,4-Trichlorobenzene	70	Marine Human Health Protection - 304	227	80	1.0	0.021	70
1,2-Dichlorobenzene	1300	Marine Human Health Protection - 304	4200	NA	1.0	0.014	1300
1,2-Dinitrobenzene	6	Groundwater Cleanup Level	NA	6	1.0	0.021	6
1,3-Dichlorobenzene	960	Marine Human Health Protection - 304	NA	NA	1.0	0.014	960
1,3-Dinitrobenzene	2	Groundwater Cleanup Level	NA	2	5.0	0.035	5
1,4-Dichlorobenzene	5	MTCA B Surface Water Carc.	5	NA	1.0	4.9	5
1,4-Dinitrobenzene	6	Groundwater Cleanup Level	NA	6	5.0	0.038	6
1-Methylnaphthalene	NA	NAA	NA	NR	0.5	0.019	1
2,3,4,6-Tetrachlorophenol	480	Groundwater Cleanup Level	NA	480	1.0	0.020	480
2,3,5,6-Tetrachlorophenol	NA	NAA	NA	NA	1.0	0.025	1
2,4,5-Trichlorophenol	3600	Marine Human Health Protection - 304	NA	NA	2.0	0.045	3600
2,4,6-Trichlorophenol	2	Marine Human Health Protection - 304	4	NA	2.0	0.041	2
2,4-Dichlorophenol	191	MTCA B Surface Water Non-Carc	191	NA	2.0	0.016	191
2,4-Dimethylphenol	553	MTCA B Surface Water Non-Carc	553	NA	1.0	0.014	553
2,4-Dinitrophenol	3457	MTCA B Surface Water Non-Carc	3457	NA	2.0	0.036	3457
2,4-Dinitrotoluene	3	Marine Human Health Protection - 304	1360	NA	1.0	0.020	3
2,6-Dinitrotoluene	16	Groundwater Cleanup Level	NA	16	1.0	0.018	16
2-Chloronaphthalene	1027	MTCA B Surface Water Non-Carc	1027	NA	1.0	0.016	1027
2-Chlorophenol	97	MTCA B Surface Water Non-Carc	97	NA	1.0	0.018	97
2-Methylnaphthalene	32	Groundwater Cleanup Level	NA	32	0.5	0.023	32
2-Methylphenol (o-cresol)	400	Groundwater Cleanup Level	NA	400	1.0	0.020	400
2-Nitroaniline	NA	NAA	NA	NR	5.0	0.016	5
2-Nitrophenol	NA	NAA	NA	NA	2.0	0.024	2
3-Methylphenol (m-cresol)	400	Groundwater Cleanup Level	NA	400	1.0	0.019	400
3-Nitroaniline	NA	NAA	NA	NA	5.0	0.025	5
4,6-Dinitro-2-methylphenol	NA	NAA	NA	NA	2.0	0.046	2
4-Bromo phenyl phenyl ether	NA	NAA	NA	NA	1.0	0.028	1
4-Chloro-3-methylphenol	NA	NAA	NA	NA	5.0	0.015	5
4-Chloroaniline	32	Groundwater Cleanup Level	NA	32	5.0	0.019	32
4-Chlorophenyl phenyl ether	NA	NAA	NA	NA	1.0	0.026	1
4-Methylphenol (p-cresol)	40	Groundwater Cleanup Level	NA	40	1.0	0.019	40
4-Nitrophenol	NA	NAA	NA	NA	5.0	0.019	5
Aniline	8	Groundwater Cleanup Level	NA	8	2.0	0.014	8
Azobenzene	1	Groundwater Cleanup Level	NA	1	1.0	0.010	1
Benzoic Acid	64000	Groundwater Cleanup Level	NA	64000	2	0.05	64000
Benzyl alcohol	2400	Groundwater Cleanup Level	NA	2400	1.0	0.021	2400
Benzyl butyl phthalate	1260	MTCA B Surface Water Non-Carc	1260	NA	1	0.016	1260
bis (2-Ethylhexyl) adipate	400	Groundwater Cleanup Level	NA	73	1	0.028	400
bis (2-Ethylhexyl) phthalate	2	Marine Human Health Protection - 304	4	NA	1	0.02	2
Bis(2-chloroethoxy)methane	NA	NAA	NA	NA	1.0	0.018	1
Bis(2-chloroethyl)ether	1	Marine Human Health Protection - 304	1	NA	2.0	0.021	2
Bis(2-chloroisopropyl)ether	41985	MTCA B Surface Water Non-Carc	41985	NA	1.0	0.072	41985
Carbazole	4	Groundwater Cleanup Level	NA	4	5	0.015	5
Dibenzofuran	32	Groundwater Cleanup Level	NA	32	1.0	0.014	32
Diethylphthalate	28412	MTCA B Surface Water Non-Carc	28412	NA	1.0	0.016	28412
Dimethylphthalate	72016	MTCA B Surface Water Non-Carc	72016	NA	1.0	0.021	72017
Di-n-butylphthalate	2913	MTCA B Surface Water Non-Carc	2913	NA	1	0.015	2913
Di-n-octyl phthalate	320	Groundwater Cleanup Level	NA	320	0.1	0.014	320
Diphenylamine	2160	MTCA B Surface Water Non-Carc	2160	NA	5.0	0.012	2161
Hexachlorocyclopentadiene	18	Marine Human Health Protection - 304	30	NA	4.0	18.0	18
Hexachlorocyclopentadiene	1100	Marine Human Health Protection - 304	3580	NA	1.0	0.031	1100
Hexachloroethane	3	Marine Human Health Protection - 304	5	NA	1.0	0.016	3
Isophorone	600	Marine Human Health Protection - NTR	1560	NA	1.0	0.010	600
Nitrobenzene	449	MTCA B Surface Water Non-Carc	449	NA	2.0	0.018	449
N-Nitroso-di-n-propylamine	1	Marine Human Health Protection - 304	1	NA	1.0	0.012	1
Pentachlorophenol	3	Marine Human Health Protection - 304	5	NA	2.0	0.013	3
Phenol	1100000	MTCA B Surface Water Non-Carc	1100000	NA	2.0	0.017	1100000

**NOTES:**

1 = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10) 2 = The minimum between carcinogen or non-carcinogen number was selected

2 = The minimum between carcinogen or non-carcinogen number was selected

3 = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms. Groundwater Cleanup Level = Minimum value between applicable groundwater ARARs and MTCA B groundwater ingestion risk-based values.



Table 11. Preliminary Screening Levels by NWTPH-Dx								
Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Source for calculation	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA A Groundwater (if surface water standards are absent only (µg/L))	MTCA B Groundwater (if surface water standards are absent only (µg/L)) <sup>2</sup>	Water MRL	Water MDL	Preliminary Screening Level (µg/L) <sup>3</sup>
						µg/L	µg/L	
Diesel (Fuel Oil)	NA	NAA	NA	500	NA	50	38.4	500
Heavy Oil	NA	NAA	NA	500	NA	100	64	500
Mineral Oil	NA	NAA	NA	500	NA	100	64	500
Gasoline range petroleum hydrocarbons by NWTPH-Gx								
Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Source for calculation	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA A Groundwater (if surface water standards are absent only (µg/L))	MTCA B Groundwater (if surface water standards are absent only (µg/L))	Water MRL	Water MDL	Preliminary Screening Level (µg/L)
						µg/L	µg/L	
Gasoline	NA	NAA	NA	1000	NA	50	8.1	1000
Gasoline (benzene present)	NA	NAA	NA	800	NA	50	8.1	800

<sup>1</sup> = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> = The minimum between carcinogen or non-carcinogen number was selected

<sup>3</sup> = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

Table 12. Preliminary Screening Levels for Water							
Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Source for calculation	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA B Groundwater (if surface water standards are absent only (µg/L)) <sup>2</sup>	Water MRL	Water MDL	Preliminary Screening Level (µg/L) <sup>3</sup>
					µg/L	µg/L	
Aroclor 1016	0.006	MTCA B Surface Water Non-Carc.	0.00582	NA	0.1	0.051	0.1
Aroclor 1221	NA	NAA	NA	NA	0.1	0.043	0.1
Aroclor 1232	NA	NAA	NA	NA	0.1	0.008	0.1
Aroclor 1242	NA	NAA	NA	NA	0.1	0.067	0.1
Aroclor 1248	NA	NAA	NA	NA	0.1	0.044	0.1
Aroclor 1254	0.002	MTCA B Surface Water Non-Carc.	0.00166	NA	0.1	0.088	0.1
Aroclor 1260	0.03	Marine Chronic AWQC-NTR	NR	NA	0.1	0.051	0.1
Total PCBs	0.000064	Marine Human Health Protection 304	0.000105	NA	0.1	0.088	0.1

<sup>1</sup> = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10)

<sup>2</sup> = The minimum between carcinogen or non-carcinogen number was selected

<sup>3</sup> = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

NR = Data was not researched in this database

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms. Marine Chronic AWQC-NTR = EPA Water Quality Criteria based upon chronic toxicity of marine organisms

Table 13. Preliminary Screening Levels for Water

Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Source for calculation	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA B Groundwater (if surface water standards are absent only) (µg/L) <sup>2</sup>	Water MRL		Preliminary Screening Level (µg/L) <sup>3</sup>
					µg/L	µg/L	
Antimony	640	Marine Human Health - 304	1040	NA	0.2	0.008	640
Arsenic	0	Marine Human Health Protection - 304	0	0.058	1.0	0.187	5*
Beryllium	273	MTCA B Surface Water Non-Carc.	273	NA	0.2	0.043	273
Cadmium	9	Marine Chronic AWQC - 304	20	NA	0.2	0.043	9
Chromium III	243056	MTCA B Surface Water Non-Carc.	243056	NA	0.5	0.114	243055
Chromium VI**	50	Marine Chronic AWQC - 201A WAC	486	NA	0.5	0.200	50
Copper	2	Marine Chronic AWQC - NTR	2660	NA	0.5	0.072	2
Lead	8	Marine Chronic AWQC - 201A WAC	NR	NA	1.0	0.039	8
Mercury	0	Marine Chronic AWQC - 201A WAC	NR	NA	0.3	0.010	0
Nickel	8	Marine Chronic AWQC - 201A WAC	1100	NA	0.5	0.076	8
Selenium	71	Marine Chronic AWQC - 201A WAC	2700	NA	1.0	0.741	71
Silver	25926	MTCA B Surface Water - Non-Carc.	25926	NA	0.2	0.007	25926
Thallium	0	Marine Human Health - 304	2	NA	0.2	0.006	1
Zinc	81	Marine Chronic AWQC - 201A WAC	16500	NA	1.5	0.228	81

NOTES:

- 1 = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecobav's On-Line CLARC database (searched on 9/8/10). 2 = The minimum between carcinogen or non-carcinogen number was selected.
- 2 = The minimum between carcinogen or non-carcinogen number was selected.
- 3 = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.
- \*Arsenic value is based upon background concentrations of this metal in groundwater per MTCA, WAC 173-346-900: Table 720-1
- \*\* Chromium VI in water is analyzed by EPA Method 7196
- ARAR = Antidegradation or Best Management Practices
- CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit
- MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act
- NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent
- MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.
- MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.
- Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms. Marine Chronic AWQC-201A = State Water Quality Criteria based upon chronic toxicity of marine organisms
- Marine Chronic AWQC-NTR = EPA Water Quality Criteria based upon chronic toxicity of marine organisms

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Table 14. Preliminary Screening Levels Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270

Analyte	Applicable Surface Water ARAR (µg/L) <sup>1</sup>	Reference for Surface Water ARAR	Surface Water, MTCA Method B Standard Formula (µg/L)	MTCA B Groundwater (if surface water standards are absent only (µg/L)) <sup>2</sup>	Water MRL		Preliminary Screening Level (µg/L) <sup>3</sup>
					µg/L	µg/L	
Acenaphthene	643	MTCA B Surface Water Non-Carc	643	NA	0.5	0.024	643
Acenaphthylene	NA	NAA	NR	NR	0.5	0.017	1
Anthracene	25,926	MTCA B Surface Water Non-Carc	25,926	NA	0.5	0.026	25,926
Benzo [a] anthracene	0	Marine Human Health Protection - 304	NR	NA	0.1	0.027	0
benzo [a] pyrene	0	Marine Human Health Protection - 304	0	NA	0.1	0.016	0
benzo [b] fluoranthene	0	Marine Human Health Protection - 304	NR	NA	0.1	0.021	0
Benzo [g,h,i] perylene	NA	NAA	NR	NA	0.5	0.015	1
benzo [k] fluoranthene	0	Marine Human Health Protection - 304	NR	NA	0.1	0.026	0
Chrysene	0	Marine Human Health Protection - 304	NR	NA	0.1	0.013	0
Dibenzo [a,h]	0	Marine Human Health Protection - 304	NR	NA	0.1	0.013	0
Fluoranthene	90	MTCA B Surface Water Non-Carc	90	NA	0.5	0.022	90
Fluorene	3,457	MTCA B Surface Water Non-Carc	3,457	NA	0.5	0.016	3,457
Indeno [1,2,3-cd] pyrene	0	Marine Human Health Protection - 304	NR	NA	0.1	0.015	0
Naphthalene	4,938	MTCA B Surface Water Non-Carc	4,938	NA	0.1	0.004	4,938
Phenanthrene	NA	NAA	NR	NR	0.5	0.016	1
Pyrene	2,593	MTCA B Surface Water Non-Carc	2,593	NA	0.5	0.006	2,593

**NOTES:**

1 = Preliminary screening levels and target concentrations used in the 3-phase model were identified in Ecology's On-Line CLARC database (searched on 9/8/10) 2 = The minimum between carcinogen or non-carcinogen number was selected

3 = The preliminary screening level is based upon protection of surface water. The minimum between the surface water ARARs for marine surface water and surface water method B value was selected. If no value was presented in CLARC for these parameters, then the minimum between MTCA Method A and B was selected.

ARAR = Applicable or Relevant and Appropriate Requirements

CLARC = Cleanup Levels and Risk Calculation. The CLARC online database was searched on 9/8/10. MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit MTCA = Model Toxics Control Act

NAA = No applicable surface water ARAR for this parameter was reported in the CLARC database research NA = Not applicable due to other ARAR taking precedent

NR = Data was not researched in this database

MTCA B Surface Water - Carc. = MTCA B surface water cleanup level based on carcinogenic risk.

MTCA B Surface Water - Non-Carc. = MTCA B surface water cleanup level based on noncancer effects.

Marine Human Health Protection - 304 = EPA National Recommended Water Quality Criteria identified in CLARC for the consumption of organisms.

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**Table 15. Analytical Suite for Additional 19 Borings and  
2 Monitoring Wells TC Systems**

Ecology Well ID	Exploration Depth (ft bgs)	Soil Sample Depth Interval (ft bgs)	Analytical Suite (Soil only for borings, soil and g/w for two additional wells)
<b>SOIL</b>			
TC-SB-1	10'	1-2' 7-8' 9-10'	Cu, cPAH, (priority metals if slag identified) Cu, cPAH, (priority metals if slag identified) Cu, cPAH, (priority metals if slag identified)
TC-SB-2	15'	1-2' 7-8' 12-13'	cPAH, PCP (in surface soil only) Cu archive - metals
TC-SB-3	10'	3-4' 9-10'	As, Cu, Pb, cPAH archive - metals/cPAH
TC-SB-4	10'	1-2' 3-4' 9-10'	As, Cu, cPAH, NWTPh-Gx/Dx, SVOC (PCB if potential exists) cPAH, TPH, SVOC, archive - metals (PCB if potential exists) cPAH, SVOC, archive - metals (PCB if potential exists)
TC-SB-5	5'	1-2' 4-5'	Cu Cu
TC-SB-6	5'	1-2' 2-3'	As, Cu, Pb, cPAH, TPH, SVOC (PCB if potential exists) As, Cu, Pb, cPAH, TPH, SVOC (PCB if potential exists)
TC-SB-7	10'	2-3' 9-10'	As, Cu, Pb, cPAH, TPH, SVOC As, Cu, Pb, cPAH, TPH, SVOC, PCB (at depth due to presence in g/w)
TC-SB-8	5'	1-2' 3-4'	As, Cu, Pb, cPAH, SVOC, PCB (TPH if potentially present) As, Cu, Pb, cPAH, SVOC, PCB (TPH if potentially present)
TC-SB-9	5'	3-4'	Cu
TC-SB-10	5'	1-2' 3-4'	As, Cu, cPAH As, CucPAH
TC-SB-11	5'	1-2' 3-4'	As, Cu, cPAH cPAH, archive - metals
TC-SB-12	10'	4-5' 9-10'	priority metals only if slag identified priority metals only if slag identified
TC-SB-13	10'	2-3' 9-10'	Cu, Pb, cPAH, (SVOC including PCP if potential exists) Cu, Pb, (SVOC including PCP if potential exists)
TC-SB-14	10'	4-5' 9-10'	priority metals only if slag identified priority metals only if slag identified
TC-SB-15	15'	1-2' 4-5' 14-15'	Cu, Pb, cPAH, SVOC, PCB, TPH Cu, Pb, cPAH, SVOC, PCB, TPH Cu, Pb
TC-SB-16	15'	2-3' 14-15'	Cu, Pb, archive - cPAH (cPAH only if exceedance at TC-SB-20) Cu, Pb
TC-SB-17	15'	2-3' 14-15'	Cu, Pb, archive - cPAH (cPAH only if exceedance at TC-SB-21) Cu, Pb, archive - cPAH (cPAH only if exceedance at TC-SB-21)
TC-SB-20	10'	2-3' 9-10'	As, Cu As, Cu
TC-SB-21	5'	1-2' 4-5'	PCB, TPH PCB, TPH
<b>GROUNDWATER</b>			
TC-MW-18	15'	2-3'	TPH-Dx, cPAHs, SVOCs, PCBs, As, Cu (Soil per SAP)
TC-MW-19	15'	2-3'	TPH-Dx, cPAHs, SVOCs, PCBs, As, Cu (Soil Per SAP)

**Table 16. Additional Well Locations and Sampling Details TC Systems**

Well ID	> PSL	Round 1 (summer) per Ecology Request	Round 2 (late fall) *
<b>Groundwater</b>			
MW-1	As,Cu, PAH, SVOC, TPH	As,Cu, cPAH, SVOC, TPH-DX/Gx	As, Cu, cPAH, SVOC, TPH-DX/Gx
MW-2	AS, Cu	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-3	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-4	As, Cu	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-5	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC, PCB	As, Cu, cPAH, SVOC, PCB
MW-6	AS, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-7	As, Cu, Zn, PAH, Phenan, PCB	As, Cu, Zn, cPAH, PCB, SVOC, TPH-Dx/Gx	As, Cu, Zn, cPAH, PCB, SVOC, TPH-Dx/Gx
MW-8	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-9	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-10	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-11	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC	As, Cu, cPAH, SVOC
MW-12	As, Cu, PAH, SVOC, PCB	As, Cu, cPAH, SVOC, PCB	As, Cu, cPAH, SVOC, PCB
MW-13	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC, TPH-Gx/Dx	As, Cu, cPAH, SVOC, TPH-Gx/Dx
MW-14	As, Cu, Ni, PAH, PCP, 1-Methyl, Phenan, TPH	As, Cu, Ni, cPAH, PCP, TPH-Gx/Dx, SVOC, PCB	As, Cu, Ni, cPAH, PCP, TPH-Gx/Dx, SVOC, PCB
MW-15	As, Cu, PAH, SVOC	As, Cu, cPAH, SVOC, PCB	As, Cu, cPAH, SVOC, PCB
MW-16	As, Cu, PAH, SVOC, TPH	As, Cu, cPAH, SVOC, TPH-Gx/Dx	As, Cu, cPAH, SVOC, TPH-Gx/Dx
MW-17	As, Cu, PAH, 1-methyl, Phenan, PCB, TPH	As, Cu, cPAH, PCB, SVOC, TPH-Gx/Dx	As, Cu, cPAH, PCB, SVOC, TPH-Gx/Dx
MW-18	not yet installed sample per SAP	metals, SVOCs, VOCs, TPH-Gx/Dx, cPAH, PCB	metals (As, Cu, and others that exceeded), SVOCs, VOCs, TPH-Gx/Dx, cPAH, PCB
MW-19	not yet installed sample per SAP	metals, SVOCs, VOCs, TPH-Gx/Dx, cPAH, PCB	metals (As, Cu, and others that exceeded), SVOCs, VOCs, TPH-Gx/Dx, cPAH, PCB

\* Analyses in black font will be included if there are exceedances in Round 1

**Table 17. Groundwater Elevations  
1032 West Marine View Drive, Everett, Washington**

Well Number (TOC Elevation)	Measurement Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet)
TC-MW-1 (13.94)	5/2/2011	4.59	9.35
	7/17/2012	4.71	9.23
	2/13/2013	4.65	9.29
TC-MW-2 (13.29)	5/3/2011	3.95	9.34
	7/17/2012	4.02	9.27
	2/13/2013	3.97	9.32
TC-MW-3 (13.81)	5/3/2011	4.50	9.31
	7/17/2012	4.56	9.25
	2/13/2013	4.50	9.31
TC-MW-4 (14.29)	5/3/2011	5.00	9.29
	7/17/2012	5.10	9.19
	2/13/2013	5.05	9.24
TC-MW-5 (13.96)	5/3/2011	4.63	9.33
	7/17/2012	4.77	9.19
	2/13/2013	4.70	9.26
TC-MW-6 (12.77)	5/3/2011	3.42	9.35
	7/17/2012	3.56	9.21
	2/13/2013	3.50	9.27
TC-MW-7 (12.88)	5/4/2011	3.85	9.03
	7/17/2012	3.93	8.95
	2/13/2013	3.93	8.95
TC-MW-8 (13.58)	5/4/2011	4.30	9.28
	7/17/2012	4.46	9.12
	2/13/2013	4.33	9.25
TC-MW-9 (13.72)	5/4/2011	4.40	9.32
	7/17/2012	4.58	9.14
	2/13/2013	4.50	9.22
TC-MW-9R <sup>A</sup> (Not Surveyed)	3/13/2014	4.79	--
TC-MW-10 (14.50)	5/3/2011	5.22	9.28
	7/17/2012	5.36	9.14
	2/13/2013	5.26	9.24
TC-MW-11 (13.46)	5/4/2011	4.00	9.46
	7/17/2012	4.15	9.31
	2/13/2013	4.09	9.37

**Table 17. Groundwater Elevations  
1032 West Marine View Drive, Everett, Washington**

Well Number (TOC Elevation)	Measurement Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet)
TC-MW-12 (13.80)	5/4/2011	4.40	9.40
	7/17/2012	4.60	9.20
	2/13/2013	4.41	9.39
TC-MW-13 (14.43)	5/5/2011	5.02	9.41
	7/17/2012	5.29	9.14
	2/13/2013	5.18	9.25
	3/3/2014	5.50	8.93
TC-MW-14 (14.62)	5/5/2011	5.30	9.32
	7/17/2012	5.40	9.22
	2/13/2013	5.30	9.32
TC-MW-15 14.63	5/5/2011	5.26	9.37
	7/17/2012	5.45	9.18
	2/13/2013	5.31	9.32
TC-MW-16 (14.45)	5/5/2011	5.02	9.43
	7/17/2012	4.96	9.49
	2/13/2013	4.91	9.54
TC-MW-17 (14.52)	5/5/2011	5.18	9.34
	7/17/2012	5.35	9.17
	2/13/2013	5.30	9.22
TC-MW-18 (Not Surveyed)	7/17/2012	4.10	--
	2/13/2013	4.29	--
TC-MW-19 (Not Surveyed)	7/17/2012	3.57	--
	2/13/2013	3.30	--
	3/13/2014	4.73	--
TC-MW-20 (Not Surveyed)	3/13/2014	3.90	--
TC-MW-21 (Not Surveyed)	3/13/2014	5.02	--

Notes:

TOC = Top of casing

A = TC-MW-9R installed March 11, 2014 to replace well TC-MW-9



Table 18. Laboratory Data for Soil Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: Method Blank MEOH VOC Cooler 1	Sample ID: Method Blank MEOH VOC Cooler 2	Sample ID: Method Blank MEOH VOC Cooler 3	Sample ID: Method Blank MEOH VOC Cooler 4	Sample ID: Test Blank #1	Sample ID: Test Blank #2	Sample ID: Trip Blank VOC Soil	Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'
				Date: 4/26/2011 Time: Depth: Comments:	Date: 4/27/2011 Time: Depth: Comments:	Date: 4/27/2011 Time: Depth: Comments:	Date: 4/27/2011 Time: Depth: Comments:	Date: 4/28/2011 Time: Depth: Comments:	Date: 4/28/2011 Time: Depth: Comments:	Date: 4/28/2011 Time: Depth: Comments:	Date: 4/26/2011 Time: 11:40 Depth: 1' Comments:	Date: 4/26/2011 Time: 11:45 Depth: 2' Comments:	Date: 4/26/2011 Time: 11:50 Depth: 3' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	ND (<0.0325)	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0325)	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4.000	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ND (<0.00500)	ND (<0.00500)	ND (<0.00500)	ND (<0.00500)	ND (<0.00500)	ND (<0.00500)	ND (<0.00500)	ND (<0.00325)	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ND (<0.0200)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ND (<0.0500)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
1,3-Dichloropropane	0.05	0.0001	1600	ND (<0.0200)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0325)	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ND (<0.0500)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ND (<0.0200)	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	<b>ND (&lt;0.0500)</b>	ND (<0.0325)	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ND (<0.0500)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
Benzene	0.02	0.0002	0.3	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Bromobenzene	0.03	0.0002	300	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Bromoform	0.02	0.0009	0.92	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Bromomethane	0.09	0.0011	4.48	ND (<0.0900)	ND (<0.0900)	ND (<0.0900)	ND (<0.0900)	ND (<0.0900)	ND (<0.0900)	ND (<0.0900)	ND (<0.0585)	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
Chlorobenzene	0.02	0.0002	14	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Chloroethane	0.06	0.0002	345	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.039)	ns	ns
Chloroform	0.02	0.0022	2.5	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Chloromethane	0.06	0.0016	76.9	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.039)	ns	ns
cis-1,2-Dichloroethane	0.02	0.0006	0.08	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
Dibromomethane	0.04	0.0003	800	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.026)	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16000	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.0600)	ND (<0.039)	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ND (<0.100)	ND (<0.100)	ND (<0.100)	ND (<0.100)	ND (<0.100)	ND (<0.100)	ND (<0.100)	ND (<0.065)	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ND (<0.0800)	ND (<0.0800)	ND (<0.0800)	ND (<0.0800)	ND (<0.0800)	ND (<0.0800)	ND (<0.0800)	ND (<0.0520)	ns	ns
Methylene chloride	0.02	0.0000	2.6	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Naphthalene	0.03	0.0003	137	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
Styrenes	0.02	0.0003	0.03	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	<b>ND (&lt;0.0200)</b>	ND (<0.013)	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Toluene	0.02	0.0008	109	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Total Xylenes	0.03	0.0003	14.6	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.0400)	ND (<0.026)	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.0200)	ND (<0.013)	ns	ns
Trans-1,3-Dichloropropene	0.03	0.0001	0.12	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0300)	ND (<0.0195)	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0500)	ND (<0.0325)	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ND (<0.0020)	ND (<0.0020)	ND (<0.0020)	ND (<0.0020)	ND (<0.0020)	ND (<0.0020)	ND (<0.0020)	ND (<0.0013)	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'	Sample ID: TC-MW-3-2'	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP-2 (DUP of TC-MW-4-1')	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'	Sample ID: TC-MW-4-10'
				Date: 4/26/2011 Time: 12:25 Depth: 8'	Date: 4/26/2011 Time: 13:20 Depth: 1'	Date: 4/26/2011 Time: 14:45 Depth: 1'	Date: 4/26/2011 Time: 14:50 Depth: 2'	Date: 4/26/2011 Time: 15:10 Depth: 3'	Date: 4/27/2011 Time: 7:50 Depth: 1'	Date: 4/27/2011 Time: 7:50 Depth: 1'	Date: 4/27/2011 Time: 7:55 Depth: 2'	Date: 4/26/2011 Time: 8:00 Depth: 3'	Date: 4/27/2011 Time: 8:25 Depth: 10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ND (<0.07)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,1,2-Trichloroethane	0.03	0.0003	0.09	ND (<0.07)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
1,1-Dichloroethane	0.02	0.0002	8.7	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,1-Dichloroethene	0.05	0.0003	0.05	<b>ND (&lt;0.117)</b>	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
1,1-Dichloropropene	0.02	0.0038	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,2,3-Trichlorobenzene	1.0	0.0002	49	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,2,3-Trichloropropane	0.02	0.0005	0.14	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ND (<0.117)	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
1,2,4-Trimethylbenzene	0.02	0.0004	4.000	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ND (<0.07)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ND (<0.117)	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
1,2-Dichlorobenzene	0.02	0.0003	15.23	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
1,2-Dichloropropane	0.02	0.0001	0.07	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,3-Dichlorobenzene	0.02	0.0002	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
1,3-Dichloropropane	0.05	0.0001	1600	ND (<0.117)	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
1,4-Dichlorobenzene	0.02	0.0002	0.08	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
2,2-Dichloropropane	0.05	0.0005	0.05	<b>ND (&lt;0.117)</b>	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
2-Chlorotoluene	0.02	0.0004	1,600	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
4-Chlorotoluene	0.02	0.0003	5,500	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
4-Isopropyltoluene	0.02	0.0004	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Benzene	0.02	0.0002	0.3	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Bromobenzene	0.03	0.0002	300	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
Bromodichloromethane	0.02	0.0003	0.09	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Bromoform	0.02	0.0009	0.92	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Bromomethane	0.09	0.0011	4.48	ND (<0.21)	ND (<0.0692)	ND (<0.0769)	ns	ns	ND (<0.0725)	ND (<0.0654)	ns	ns	ND (<0.0714)
Carbon tetrachloride	0.02	0.0038	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Chlorobenzene	0.02	0.0002	14	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Chloroethane	0.06	0.0002	345	ND (<0.140)	ND (<0.0462)	ND (<0.0513)	ns	ns	ND (<0.0483)	ND (<0.0436)	ns	ns	ND (<0.0476)
Chloroform	0.02	0.0022	2.5	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Chloromethane	0.06	0.0016	76.9	ND (<0.140)	ND (<0.0462)	ND (<0.0513)	ns	ns	ND (<0.0483)	ND (<0.0436)	ns	ns	ND (<0.0476)
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Dibromochloromethane	0.03	0.0002	0.07	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
Dibromomethane	0.04	0.0003	800	ND (<0.0933)	ND (<0.0308)	ND (<0.0342)	ns	ns	ND (<0.0322)	ND (<0.0291)	ns	ns	ND (<0.0317)
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16000	ND (<0.140)	ND (<0.0462)	ND (<0.0513)	ns	ns	ND (<0.0483)	ND (<0.0436)	ns	ns	ND (<0.0476)
Ethylbenzene	0.03	0.0003	18.1	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ND (<0.233)	ND (<0.0769)	ND (<0.0855)	ns	ns	ND (<0.0805)	ND (<0.0727)	ns	ns	ND (<0.0793)
Isopropylbenzene	0.08	0.0003	8,000	ND (<0.187)	ND (<0.0615)	ND (<0.0684)	ns	ns	ND (<0.0644)	ND (<0.0581)	ns	ns	ND (<0.0634)
Methylene chloride	0.02	0.0000	2.6	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Naphthalene	0.03	0.0003	137	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
n-Butylbenzene	0.02	0.0004	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
n-Propylbenzene	0.02	0.0003	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
sec-Butylbenzene	0.02	0.0004	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Styrenes	0.02	0.0003	0.03	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
tert-Butylbenzene	0.02	0.0003	0.02	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Tetrachloroethene (PCE)	0.02	0.0003	0.04	<b>ND (&lt;0.0467)</b>	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Toluene	0.02	0.0008	109	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Total Xylenes	0.03	0.0003	14.6	ND (<0.0934)	ND (<0.0308)	ND (<0.0342)	ns	ns	ND (<0.0322)	ND (<0.0291)	ns	ns	ND (<0.0318)
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ND (<0.0467)	ND (<0.0154)	ND (<0.0171)	ns	ns	ND (<0.0161)	ND (<0.0145)	ns	ns	ND (<0.0159)
Trans-1,3-Dichloropropene	0.03	0.0001	0.12	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
Trichloroethene (TCE)	0.03	0.0003	0.2	ND (<0.0700)	ND (<0.0231)	ND (<0.0256)	ns	ns	ND (<0.0242)	ND (<0.0218)	ns	ns	ND (<0.0238)
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ND (<0.117)	ND (<0.0385)	ND (<0.0427)	ns	ns	ND (<0.0403)	ND (<0.0363)	ns	ns	ND (<0.0396)
Vinyl chloride	0.002	0.0013	0.015	ND (<0.00467)	ND (<0.00154)	ND (<0.00171)	ns	ns	ND (<0.00161)	ND (<0.00145)	ns	ns	ND (<0.00159)

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-5-1'	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'	Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'
				Date: 4/27/2011 Time: 14:35 Depth: 1' Comments:	Date: 4/27/2011 Time: 14:40 Depth: 2' Comments:	Date: 4/27/2011 Time: 14:35 Depth: 1' Comments:	Date: 4/27/2011 Time: 15:00 Depth: 2' Comments:	Date: 4/27/2011 Time: 15:05 Depth: 3' Comments:	Date: 4/27/2011 Time: 10:00 Depth: 1' Comments:	Date: 4/27/2011 Time: 10:05 Depth: 2' Comments:	Date: 4/27/2011 Time: 10:10 Depth: 3' Comments:	Date: 4/28/2011 Time: 12:00 Depth: 1' Comments:	Date: 4/28/2011 Time: 12:07 Depth: 2' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ND (<0.0386)	ns	ND (<0.032)	ns	ns	ND (<0.0364)	ns	<b>ND (&lt;0.0792)</b>	ND (<0.0404)	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ND (<0.0386)	ns	ND (<0.032)	ns	ns	ND (<0.0364)	ns	ND (<0.0792)	ND (<0.0404)	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	0.168	ND (<0.0162)	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ND (<0.00386)	ns	ND (<0.0032)	ns	ns	ND (<0.00364)	ns	ND (<0.00792)	ND (<0.00404)	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	0.0761	ND (<0.0162)	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ND (<0.0386)	ns	ND (<0.032)	ns	ns	ND (<0.0364)	ns	ND (<0.0792)	ND (<0.0404)	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ND (<0.0386)	ns	ND (<0.032)	ns	ns	ND (<0.0364)	ns	<b>ND (&lt;0.0792)</b>	ND (<0.0404)	ns
2-Chlorotoluene	0.02	0.0004	1,600	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
4-Chlorotoluene	0.02	0.0003	5,500	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
Benzene	0.02	0.0002	0.3	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Bromobenzene	0.03	0.0002	300	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
Bromodichloromethane	0.02	0.0003	0.09	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Bromoform	0.02	0.0009	0.92	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Bromomethane	0.09	0.0011	4.48	ND (<0.0695)	ns	ND (<0.0575)	ns	ns	ND (<0.0656)	ns	ND (<0.142)	ND (<0.0727)	ns
Carbon tetrachloride	0.02	0.0038	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
Chlorobenzene	0.02	0.0002	14	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Chloroethane	0.06	0.0002	345	ND (<0.0464)	ns	ND (<0.0384)	ns	ns	ND (<0.0437)	ns	ND (<0.095)	ND (<0.0485)	ns
Chloroform	0.02	0.0022	2.5	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Chloromethane	0.06	0.0016	76.9	ND (<0.0464)	ns	ND (<0.0384)	ns	ns	ND (<0.0437)	ns	ND (<0.095)	ND (<0.0485)	ns
cis-1,2-Dichloroethane	0.02	0.0006	0.08	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Dibromochloromethane	0.03	0.0002	0.07	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
Dibromomethane	0.04	0.0003	800	ND (<0.0309)	ns	ND (<0.0256)	ns	ns	ND (<0.0292)	ns	ND (<0.0633)	ND (<0.0323)	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ND (<0.0464)	ns	ND (<0.0384)	ns	ns	ND (<0.0437)	ns	ND (<0.095)	ND (<0.0485)	ns
Ethylbenzene	0.03	0.0003	18.1	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ND (<0.0773)	ns	ND (<0.0639)	ns	ns	ND (<0.0729)	ns	ND (<0.158)	ND (<0.0808)	ns
Isopropylbenzene	0.08	0.0003	8,000	ND (<0.0618)	ns	ND (<0.0512)	ns	ns	ND (<0.0583)	ns	ND (<0.127)	ND (<0.0647)	ns
Methylene chloride	0.02	0.0000	2.6	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Naphthalene	0.03	0.0003	137	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	20.5	ND (<0.0242)	ns
n-Butylbenzene	0.02	0.0004	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
n-Propylbenzene	0.02	0.0003	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
sec-Butylbenzene	0.02	0.0004	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
Styrenes	0.02	0.0003	0.03	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
tert-Butylbenzene	0.02	0.0003	0.02	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	<b>ND (&lt;0.0317)</b>	ND (<0.0162)	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Toluene	0.02	0.0008	109	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
Total Xylenes	0.03	0.0003	14.6	ND (<0.031)	ns	ND (<0.0256)	ns	ns	ND (<0.0292)	ns	ND (<0.0769)	ND (<0.0324)	ns
trans-1,2-Dichloroethane	0.02	0.0002	54.3	ND (<0.0155)	ns	ND (<0.0128)	ns	ns	ND (<0.0146)	ns	ND (<0.0317)	ND (<0.0162)	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ND (<0.0232)	ns	ND (<0.0192)	ns	ns	ND (<0.0219)	ns	ND (<0.0475)	ND (<0.0242)	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ND (<0.0386)	ns	ND (<0.032)	ns	ns	ND (<0.0364)	ns	ND (<0.0792)	ND (<0.0404)	ns
Vinyl chloride	0.002	0.0013	0.015	ND (<0.00155)	ns	ND (<0.00128)	ns	ns	ND (<0.00146)	ns	ND (<0.00317)	ND (<0.00162)	ns

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRL = Laboratory Method Reporting Limit  
MDL = Laboratory Method Detection Limit  
J = Estimated value  
ns = not sampled  
**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-8-3'	Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'	Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: DUP-3 (DUP of TC-MW-12-1')
				Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/25/2011	Date: 4/25/2011	Date: 4/28/2011	4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011
				Time: 12:10	Time: 10:30	Time: 10:40	Time: 14:30	Time: 14:50	Time: 9:10	Time: 9:15	Time: 9:20	Time: 7:45	Time: 7:45
				Depth: 3'	Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ND (<0.0345)	ND (<0.0417)	ND (<0.0408)	ns	ND (<0.0267)	ns	ns	ND (<0.0279)	ND (<0.0312)
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ND (<0.0345)	ND (<0.0417)	ND (<0.0408)	ns	ND (<0.0267)	ns	ns	ND (<0.0279)	ND (<0.0312)
1,2,4-Trimethylbenzene	0.02	0.0004	4.000	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ND (<0.00345)	ND (<0.00417)	ND (<0.00408)	ns	ND (<0.00267)	ns	ns	ND (<0.00279)	ND (<0.00312)
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
1,3-Dichloropropane	0.05	0.0001	1600	ns	ND (<0.0345)	ND (<0.0417)	ND (<0.0408)	ns	ND (<0.0267)	ns	ns	ND (<0.0279)	ND (<0.0312)
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ND (<0.0345)	ND (<0.0417)	ND (<0.0408)	ns	ND (<0.0267)	ns	ns	ND (<0.0279)	ND (<0.0312)
2-Chlorotoluene	0.02	0.0004	1,600	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
4-Chlorotoluene	0.02	0.0003	5,500	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Benzene	0.02	0.0002	0.3	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Bromobenzene	0.03	0.0002	300	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
Bromodichloromethane	0.02	0.0003	0.09	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Bromoform	0.02	0.0009	0.92	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Bromomethane	0.09	0.0011	4.48	ns	ND (<0.0622)	ND (<0.0751)	ND (<0.0734)	ns	ND (<0.0481)	ns	ns	ND (<0.0502)	ND (<0.0561)
Carbon tetrachloride	0.02	0.0038	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Chlorobenzene	0.02	0.0002	14	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Chloroethane	0.06	0.0002	345	ns	ND (<0.0414)	ND (<0.05)	ND (<0.0489)	ns	ND (<0.032)	ns	ns	ND (<0.0335)	ND (<0.0374)
Chloroform	0.02	0.0022	2.5	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Chloromethane	0.06	0.0016	76.9	ns	ND (<0.0414)	ND (<0.05)	ND (<0.0489)	ns	ND (<0.032)	ns	ns	ND (<0.0335)	ND (<0.0374)
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Dibromochloromethane	0.03	0.0002	0.07	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
Dibromomethane	0.04	0.0003	800	ns	ND (<0.0276)	ND (<0.0334)	ND (<0.0326)	ns	ND (<0.0214)	ns	ns	ND (<0.0223)	ND (<0.0249)
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16000	ns	ND (<0.0414)	ND (<0.05)	ND (<0.0489)	ns	ND (<0.032)	ns	ns	ND (<0.0335)	ND (<0.0374)
Ethylbenzene	0.03	0.0003	18.1	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ND (<0.0691)	ND (<0.0834)	ND (<0.0815)	ns	ND (<0.0534)	ns	ns	ND (<0.0558)	ND (<0.0624)
Isopropylbenzene	0.08	0.0003	8,000	ns	ND (<0.0552)	ND (<0.0667)	ND (<0.0652)	ns	ND (<0.0427)	ns	ns	ND (<0.0446)	ND (<0.0499)
Methylene chloride	0.02	0.0000	2.6	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Naphthalene	0.03	0.0003	137	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
n-Butylbenzene	0.02	0.0004	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
n-Propylbenzene	0.02	0.0003	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
sec-Butylbenzene	0.02	0.0004	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Styrenes	0.02	0.0003	0.03	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
tert-Butylbenzene	0.02	0.0003	0.02	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Toluene	0.02	0.0008	109	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Total Xylenes	0.03	0.0003	14.6	ns	ND (<0.0276)	ND (<0.0334)	ND (<0.0326)	ns	ND (<0.0214)	ns	ns	ND (<0.0224)	ND (<0.025)
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ND (<0.0138)	ND (<0.0167)	ND (<0.0163)	ns	ND (<0.0107)	ns	ns	ND (<0.0112)	ND (<0.0125)
Trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ND (<0.0207)	ND (<0.025)	ND (<0.0245)	ns	ND (<0.016)	ns	ns	ND (<0.0167)	ND (<0.0187)
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ND (<0.0345)	ND (<0.0417)	ND (<0.0408)	ns	ND (<0.0267)	ns	ns	ND (<0.0279)	ND (<0.0312)
Vinyl chloride	0.002	0.0013	0.015	ns	ND (<0.00138)	ND (<0.00167)	ND (<0.00163)	ns	ND (<0.00107)	ns	ns	ND (<0.00112)	ND (<0.00125)

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRL = Laboratory Method Reporting Limit  
MDL = Laboratory Method Detection Limit  
J = Estimated value  
ns = not sampled  
**bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL  mg/kg	Soil MDL  mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-12-2'	Sample ID: TC-MW-13-1'	Sample ID: TC-MW-14-1'	Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'	Sample ID: TC-MW-16-14'			
				Date: 4/28/2011	Date: 4/26/2011	Date: 4/29/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	
				Time: 7:50	Time: 9:50	Time: 8:05	Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10	Time: 8:20	Time: 8:30	Time: 9:00			
				Depth: 2'	Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 3'	Depth: 14'		
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ND (<0.0318)	ND (<0.0332)	ND (<0.0322)	ns	ND (<0.0468)	ND (<0.0229)	ns	ns	ND (<0.049)			
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ND (<0.0318)	ND (<0.0332)	ND (<0.0322)	ns	ND (<0.0468)	ND (<0.0229)	ns	ns	ND (<0.049)			
1,2,4-Trimethylbenzene	0.02	0.0004	4.000	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ND (<0.00318)	ND (<0.00332)	ND (<0.00322)	ns	ND (<0.00468)	ND (<0.00229)	ns	ns	ND (<0.00490)			
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
1,3-Dichloropropane	0.05	0.0001	1600	ns	ND (<0.0318)	ND (<0.0332)	ND (<0.0322)	ns	ND (<0.0468)	ND (<0.0229)	ns	ns	ND (<0.049)			
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ND (<0.0318)	ND (<0.0332)	ND (<0.0322)	ns	ND (<0.0468)	ND (<0.0229)	ns	ns	ND (<0.049)			
2-Chlorotoluene	0.02	0.0004	1,600	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
4-Chlorotoluene	0.02	0.0003	5,500	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Benzene	0.02	0.0002	0.3	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Bromobenzene	0.03	0.0002	300	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
Bromodichloromethane	0.02	0.0003	0.09	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Bromoform	0.02	0.0009	0.92	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Bromomethane	0.09	0.0011	4.48	ns	ND (<0.0572)	ND (<0.0597)	ND (<0.0579)	ns	ND (<0.0843)	ND (<0.0522)	ns	ns	ND (<0.0881)			
Carbon tetrachloride	0.02	0.0038	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Chlorobenzene	0.02	0.0002	14	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Chloroethane	0.06	0.0002	345	ns	ND (<0.0381)	ND (<0.0398)	ND (<0.0386)	ns	ND (<0.0562)	ND (<0.0348)	ns	ns	ND (<0.0588)			
Chloroform	0.02	0.0022	2.5	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Chloromethane	0.06	0.0016	76.9	ns	ND (<0.0381)	ND (<0.0398)	ND (<0.0386)	ns	ND (<0.0562)	ND (<0.0348)	ns	ns	ND (<0.0588)			
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	0.0764	ns	ns	ND (<0.0196)			
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Dibromochloromethane	0.03	0.0002	0.07	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
Dibromomethane	0.04	0.0003	800	ns	ND (<0.0254)	ND (<0.0265)	ND (<0.0258)	ns	ND (<0.0375)	ND (<0.0232)	ns	ns	ND (<0.0392)			
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16000	ns	ND (<0.0381)	ND (<0.0398)	ND (<0.0386)	ns	ND (<0.0562)	ND (<0.0348)	ns	ns	ND (<0.0588)			
Ethylbenzene	0.03	0.0003	18.1	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ND (<0.0636)	ND (<0.0664)	ND (<0.0644)	ns	ND (<0.0937)	ND (<0.058)	ns	ns	ND (<0.0979)			
Isopropylbenzene	0.08	0.0003	8.000	ns	ND (<0.0509)	ND (<0.0531)	ND (<0.0515)	ns	ND (<0.0749)	ND (<0.0464)	ns	ns	ND (<0.0784)			
Methylene chloride	0.02	0.0000	2.6	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Naphthalene	0.03	0.0003	137	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	0.0179	ns	ns	ND (<0.0294)			
n-Butylbenzene	0.02	0.0004	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
n-Propylbenzene	0.02	0.0003	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
sec-Butylbenzene	0.02	0.0004	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Styrenes	0.02	0.0003	0.03	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
tert-Butylbenzene	0.02	0.0003	0.02	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Toluene	0.02	0.0008	109	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	0.0829	ns	ns	ND (<0.0196)			
Total Xylenes	0.03	0.0003	14.6	ns	ND (<0.0254)	ND (<0.266)	ND (<0.0258)	ns	ND (<0.0374)	1.080	ns	ns	ND (<0.0392)			
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ND (<0.0127)	ND (<0.0133)	ND (<0.0129)	ns	ND (<0.0187)	ND (<0.0116)	ns	ns	ND (<0.0196)			
Trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ND (<0.0191)	ND (<0.0199)	ND (<0.0193)	ns	ND (<0.0281)	ND (<0.0174)	ns	ns	ND (<0.0294)			
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ND (<0.0318)	ND (<0.0332)	ND (<0.0322)	ns	ND (<0.0468)	ND (<0.0229)	ns	ns	ND (<0.049)			
Vinyl chloride	0.002	0.0013	0.015	ns	ND (<0.00127)	ND (<0.00133)	ND (<0.00129)	ns	ND (<0.00187)	0.00200	ns	ns	ND (<0.00196)			

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRL = Laboratory Method Reporting Limit  
MDL = Laboratory Method Detection Limit  
J = Estimated value  
ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-17-1'	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2- 2.5'	Sample ID: DUP of TC-MW- 18-2-2.5'	Sample ID: TC-MW-19-2- 2.5'	Sample ID: TC-MW-20-4'- 5'	Sample ID: TC-MW-20-9'- 10'	Sample ID: TC-SB-1-0.5'-1'
				Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012	Date: 03/11/2014	Date: 03/11/2014	Date: 10/16/12
				Time: 13:50	Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40	Time: 11:00	Time: 8:43	Time: 14:30	Time: 14:35	Time: 9:10
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 4'	Depth: 2.5'	Depth: 2.5'	Depth: 2.5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00738)	ND (<0.0165)	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00804)	ND (<0.0180)	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.0110)	ND (<0.0246)	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00300)	ND (<0.00670)	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00260)	ND (<0.00581)	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ND (<0.0327)	ns	ns	ND (<0.0915)	ND (<0.0318)	ns	ND (<0.0391)	ND (<0.00215)	ND (<0.00482)	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00495)	ND (<0.0111)	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00434)	ND (<0.00972)	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00675)	ND (<0.0151)	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ND (<0.0327)	ns	ns	ND (<0.0915)	ND (<0.0318)	ns	ND (<0.0391)	ND (<0.00500)	ND (<0.0112)	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	0.0543	ND (<0.00290)	ND (<0.00649)	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.0197)	ND (<0.0441)	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ND (<0.00327)	ns	ns	ND (<0.00915)	ND (<0.00318)	ns	ND (<0.00391)	ND (<0.00107)	ND (<0.00379)	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00357)	ND (<0.00799)	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00295)	ND (<0.00659)	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00425)	ND (<0.00950)	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00293)	ND (<0.00655)	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00670)	ND (<0.0150)	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ND (<0.0327)	ns	ns	ND (<0.0915)	ND (<0.0318)	ns	ND (<0.0391)	ND (<0.00303)	ND (<0.00678)	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00193)	ND (<0.00431)	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ND (<0.0327)	ns	ns	ND (<0.0915)	ND (<0.0318)	ns	ND (<0.0391)	ND (<0.00633)	ND (<0.0142)	ns
2-Chlorotoluene	0.02	0.0004	1,600	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00344)	ND (<0.00769)	ns
4-Chlorotoluene	0.02	0.0003	5,500	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00193)	ND (<0.00431)	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00218)	0.220	ns
Benzene	0.02	0.0002	0.3	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00312)	ND (<0.00697)	ns
Bromobenzene	0.03	0.0002	300	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00719)	ND (<0.0161)	ns
Bromodichloromethane	0.02	0.0003	0.09	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00282)	ND (<0.00630)	ns
Bromoform	0.02	0.0009	0.92	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00508)	ND (<0.0114)	ns
Bromomethane	0.09	0.0011	4.48	ND (<0.0589)	ns	ns	ND (<0.165)	ND (<0.0572)	ns	ND (<0.0703)	ND (<0.00681)	ND (<0.0152)	ns
Carbon tetrachloride	0.02	0.0038	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00511)	ND (<0.0114)	ns
Chlorobenzene	0.02	0.0002	14	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0469)	ND (<0.00166)	ND (<0.00370)	ns
Chloroethane	0.06	0.0002	345	ND (<0.0392)	ns	ns	ND (<0.110)	ND (<0.0381)	ns	ND (<0.0469)	ND (<0.00577)	ND (<0.0129)	ns
Chloroform	0.02	0.0022	2.5	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00325)	ND (<0.00726)	ns
Chloromethane	0.06	0.0016	76.9	ND (<0.0392)	ns	ns	ND (<0.11)	ND (<0.0381)	ns	ND (<0.0469)	ND (<0.00848)	ND (<0.0190)	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	0.0332	ND (<0.00476)	ND (<0.0106)	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00323)	ND (<0.00723)	ns
Dibromochloromethane	0.03	0.0002	0.07	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00279)	ND (<0.00625)	ns
Dibromomethane	0.04	0.0003	800	ND (<0.0262)	ns	ns	ND (<0.0732)	ND (<0.0254)	ns	ND (<0.0313)	ND (<0.00499)	ND (<0.0112)	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ND (<0.0392)	ns	ns	ND (<0.11)	ND (<0.0381)	ns	ND (<0.0469)	ND (<0.00658)	ND (<0.0147)	ns
Ethylbenzene	0.03	0.0003	18.1	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	1.47	ND (<0.00260)	ND (<0.00581)	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ND (<0.0654)	ns	ns	ND (<0.183)	ND (<0.0636)	ns	ND (<0.0782)	ND (<0.00892)	ND (<0.0199)	ns
Isopropylbenzene	0.08	0.0003	8,000	ND (<0.0523)	ns	ns	ND (<0.146)	ND (<0.0509)	ns	ND (<0.0625)	ND (<0.00189)	ND (<0.00423)	ns
Methylene chloride	0.02	0.0000	2.6	ND (<0.0131)	ns	ns	ND (<0.0366)	0.0264	ns	0.0633	ND (<0.00349)	ND (<0.00780)	ns
Naphthalene	0.03	0.0003	137	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00390)	4.51	ns
n-Butylbenzene	0.02	0.0004	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00282)	ND (<0.00630)	ns
n-Propylbenzene	0.02	0.0003	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	0.0289	ND (<0.00182)	ND (<0.00406)	ns
sec-Butylbenzene	0.02	0.0004	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00179)	ND (<0.00399)	ns
Styrenes	0.02	0.0003	0.03	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00189)	ND (<0.00423)	ns
tert-Butylbenzene	0.02	0.0003	0.02	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00252)	ND (<0.00562)	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00276)	ND (<0.00617)	ns
Toluene	0.02	0.0008	109	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	0.239	ND (<0.00239)	ND (<0.00534)	ns
Total Xylenes	0.03	0.0003	14.6	ND (<0.0262)	ns	ns	0.0908	ND (<0.0254)	ns	0.0958	ND (<0.00583)	ND (<0.00623)	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ND (<0.0131)	ns	ns	ND (<0.0366)	ND (<0.0127)	ns	ND (<0.0156)	ND (<0.00347)	ND (<0.00775)	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00211)	ND (<0.00472)	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ND (<0.0196)	ns	ns	ND (<0.0549)	ND (<0.0191)	ns	ND (<0.0234)	ND (<0.00908)	ND (<0.0203)	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ND (<0.0327)	ns	ns	ND (<0.0915)	ND (<0.0318)	ns	ND (<0.0391)	ND (<0.00114)	ND (<0.00254)	ns
Vinyl chloride	0.002	0.0013	0.015	ND (<0.0131)	ns	ns	ND (<0.00366)	ND (<0.00127)	ns	ND (<0.00156)	ND (<0.00333)	ND (<0.00744)	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-1-1'-2'	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'	Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'	Sample ID: TC-SB-3-3'-4'
				Date: 10/16/12 Time: 9:13 Depth: 1'-2' Comments:	Date: 10/16/12 Time: 9:25 Depth: 7'-8' Comments:	Date: 10/16/12 Time: 9:30 Depth: 9'-10' Comments:	Date: 10/16/12 Time: 13:55 Depth: 0.5'-1' Comments:	Date: 10/16/12 Time: 14:00 Depth: 2'-3' Comments:	Date: 10/16/12 Time: 14:05 Depth: 8'-9' Comments:	Date: 10/16/12 Time: 14:10 Depth: 11'-12' Comments:	Date: 10/16/12 Time: 13:10 Depth: 1'-2' Comments:	Date: 10/16/12 Time: 13:15 Depth: 2'-3' Comments:	Date: 10/16/12 Time: 13:17 Depth: 3'-4' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRL = Laboratory Method Reporting Limit  
MDL = Laboratory Method Detection Limit  
J = Estimated value  
ns = not sampled  
**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'	Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'	Sample ID: TC-SB-6-3'-4'		
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12	Date: 10/17/12
				Time: 13:25	Time: 12:40	Time: 12:45	Time: 12:50	Time: 12:55	Time: 14:45	Time: 14:50	Time: 14:55	Time: 8:30	Time: 8:35		
				Depth: 9'-10'	Depth: 1'-2'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 2'-3'	Depth: 3'-4'		
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:			
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		

**Notes:**  
 All results expressed in milligrams per kilogram (mg/kg)  
 \* based on April 1, 2011 updated CLARC value  
 MRL = Laboratory Method Reporting Limit  
 MDL = Laboratory Method Detection Limit  
 J = Estimated value  
 ns = not sampled  
**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.



Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-6-6'-7'	Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'	Sample ID: TC-SB-7-9'-10'	Sample ID: TC-SB-8-3'-4'	Sample ID: TC-SB-8-6'-7'	Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/10	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/16/12	Date: 10/16/12
				Time: 8:40	Time: 8:45	Time: 9:30	Time: 9:35	Time: 9:40	Time: 10:35	Time: 10:40	Time: 10:45	Time: 11:35	Time: 11:40
				Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-9-4'-5'	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'	Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'	Sample ID: TC-SB-12-4'-5'
				Date: 10/16/12 Time: 11:45 Depth: 4'-5' Comments:	Date: 10/16/12 Time: 11:05 Depth: 0.5'-1' Comments:	Date: 10/16/12 Time: 11:08 Depth: 1'-2' Comments:	Date: 10/16/12 Time: 11:10 Depth: 2'-3' Comments:	Date: 10/16/12 Time: 11:14 Depth: 4'-5' Comments:	Date: 10/16/12 Time: 10:45 Depth: 0.5'-1' Comments:	Date: 10/16/12 Time: 10:47 Depth: 1'-2' Comments:	Date: 10/16/12 Time: 10:50 Depth: 2'-3' Comments:	Date: 10/16/12 Time: 10:55 Depth: 4'-5' Comments:	Date: 10/16/12 Time: 8:45 Depth: 4'-5' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-12-9'- 10'	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'	Sample ID: DUP of TC-SB- 14-4'-5'	Sample ID: TC-SB-14-9'- 10'	Sample ID: TC-SB-15-0.5'- 1'	Sample ID: TC-SB-15-1'-2'	Sample ID: TC-SB-15-2'-3'
				Date: 10/16/12 Time: 8:53 Depth: 9'-10' Comments:	Date: 10/18/12 Time: 12:00 Depth: 1'-2' Comments:	Date: 10/18/12 Time: 12:03 Depth: 2'-3' Comments:	Date: 10/18/12 Time: 12:07 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 8:40 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 8:45 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 8:50 Depth: 9'-10' Comments:	Date: 10/17/12 Time: 14:30 Depth: 0.5'-1' Comments:	Date: 10/17/12 Time: 14:33 Depth: 1'-2' Comments:	Date: 10/17/12 Time: 14:35 Depth: 2'-3' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-15-6'-7'	Sample ID: TC-SB-15-14'-15'	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'	Sample ID: TC-SB-16-4'-5'-15'	Sample ID: TC-SB-16-14'-15'	Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'	Sample ID: TC-SB-17-4'-5'	
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:40	Time: 14:50	Time: 12:10	Time: 12:15	Time: 12:20	Time: 12:25	Time: 12:40	Time: 15:30	Time: 15:35	Time: 15:38	
				Depth: 6'-7'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:		
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-17-14'- 15'	Sample ID: TC-SB-18-1'-2'	Sample ID: TC-SB-18-4'-5'	Sample ID: TC-SB-18-9'- 10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'- 10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'	Sample ID: TC-SB-20-9'- 10'
				Date: 10/17/12 Time: 15:45 Depth: 14'-15' Comments:	Date: 10/18/12 Time: 10:25 Depth: 1'-2' Comments:	Date: 10/18/12 Time: 10:30 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 10:35 Depth: 9'-10' Comments:	Date: 10/18/12 Time: 11:20 Depth: 1'-2' Comments:	Date: 10/18/12 Time: 11:25 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 11:30 Depth: 9'-10' Comments:	Date: 10/18/12 Time: 9:50 Depth: 1'-2' Comments:	Date: 10/18/12 Time: 9:55 Depth: 4'-5' Comments:	Date: 10/18/12 Time: 10:00 Depth: 9'-10' Comments:
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichloropropane	0.05	0.0001	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene	0.02	0.0002	0.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromobenzene	0.03	0.0002	300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromoform	0.02	0.0009	0.92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane	0.09	0.0011	4.48	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene	0.02	0.0002	14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane	0.06	0.0002	345	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform	0.02	0.0022	2.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane	0.06	0.0016	76.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromomethane	0.04	0.0003	800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene chloride	0.02	0.0000	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene	0.03	0.0003	137	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrenes	0.02	0.0003	0.03	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene	0.02	0.0008	109	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Xylenes	0.03	0.0003	14.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 18. Laboratory Data for Soil  
Volatile Organic Compounds - EPA Method 8260

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'	Sample ID: TC-SB-23-4'-5'	Sample ID: TC-SB-23-9'-10'	Sample ID: TC-SB-22-4'-5'	Sample ID: TC-SB-22-9'-10'
				Date: 10/16/12	Date: 10/16/12	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014
				Time: 10:00	Time: 10:05	Time: 9:30	Time: 9:35	Time: 10:00	Time: 10:15
				Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
1,1,1,2-Tetrachloroethane	0.03	0.0002	38.5	ns	ns	ND (<0.0154)	ND (<0.0248)	ND (<0.00681)	ND (<0.00942)
1,1,1-Trichloroethane (TCA)	0.02	0.0002	2	ns	ns	ND (<0.0168)	ND (<0.0270)	ND (<0.00742)	ND (<0.0103)
1,1,2,2-Tetrachloroethane	0.02	0.0003	0.02	ns	ns	ND (<0.0230)	ND (<0.0371)	ND (<0.0102)	ND (<0.0141)
1,1,2-Trichloroethane	0.03	0.0003	0.09	ns	ns	ND (<0.00626)	ND (<0.0101)	ND (<0.00277)	ND (<0.00383)
1,1-Dichloroethane	0.02	0.0002	8.7	ns	ns	ND (<0.00543)	ND (<0.00875)	ND (<0.00240)	ND (<0.00332)
1,1-Dichloroethene	0.05	0.0003	0.05	ns	ns	ND (<0.00450)	ND (<0.00725)	ND (<0.00199)	ND (<0.00275)
1,1-Dichloropropene	0.02	0.0038	0.02	ns	ns	ND (<0.0103)	ND (<0.0167)	ND (<0.00457)	ND (<0.00632)
1,2,3-Trichlorobenzene	1.0	0.0002	49	ns	ns	ND (<0.0141)	ND (<0.0146)	ND (<0.00401)	ND (<0.00554)
1,2,3-Trichloropropane	0.02	0.0005	0.14	ns	ns	ND (<0.00908)	ND (<0.0227)	ND (<0.00623)	ND (<0.00862)
1,2,4-Trichlorobenzene	0.05	0.0004	2.6	ns	ns	ND (<0.0105)	ND (<0.0168)	ND (<0.00462)	ND (<0.00638)
1,2,4-Trimethylbenzene	0.02	0.0004	4.000	ns	ns	ND (<0.00607)	ND (<0.00978)	ND (<0.00268)	ND (<0.00371)
1,2-Dibromo-3-Chloropropane	0.03	0.0002	0.71	ns	ns	ND (<0.0412)	ND (<0.0664)	ND (<0.0182)	ND (<0.0252)
1,2-Dibromoethane (EDB)	0.005	0.0002	0.5	ns	ns	ND (<0.00354)	ND (<0.00571)	ND (<0.00157)	ND (<0.00216)
1,2-Dichlorobenzene	0.02	0.0003	15.23	ns	ns	ND (<0.00746)	ND (<0.0120)	ND (<0.00330)	ND (<0.00456)
1,2-Dichloroethane (EDC)	0.03	0.0002	0.18	ns	ns	ND (<0.00615)	ND (<0.00991)	ND (<0.00272)	ND (<0.00376)
1,2-Dichloropropane	0.02	0.0001	0.07	ns	ns	ND (<0.00887)	ND (<0.0143)	ND (<0.00392)	ND (<0.00542)
1,3,5-Trimethylbenzene	0.02	0.0004	800*	ns	ns	ND (<0.00612)	ND (<0.00985)	ND (<0.00270)	ND (<0.00374)
1,3-Dichlorobenzene	0.02	0.0002	0.02	ns	ns	ND (<0.0140)	ND (<0.0226)	ND (<0.00619)	ND (<0.00855)
1,3-Dichloropropane	0.05	0.0001	1600	ns	ns	ND (<0.00634)	ND (<0.0102)	ND (<0.00280)	ND (<0.00387)
1,4-Dichlorobenzene	0.02	0.0002	0.08	ns	ns	ND (<0.00403)	ND (<0.00649)	ND (<0.00178)	ND (<0.00246)
2,2-Dichloropropane	0.05	0.0005	0.05	ns	ns	ND (<0.0132)	ND (<0.0213)	ND (<0.00584)	ND (<0.00808)
2-Chlorotoluene	0.02	0.0004	1,600	ns	ns	ND (<0.00719)	ND (<0.0116)	ND (<0.00318)	ND (<0.00439)
4-Chlorotoluene	0.02	0.0003	5,500	ns	ns	ND (<0.00403)	ND (<0.00649)	ND (<0.00178)	ND (<0.00246)
4-Isopropyltoluene	0.02	0.0004	0.02	ns	ns	2.28	ND (<0.00735)	0.0235	0.0495
Benzene	0.02	0.0002	0.3	ns	ns	ND (<0.00652)	ND (<0.0105)	ND (<0.00288)	ND (<0.00398)
Bromobenzene	0.03	0.0002	300	ns	ns	ND (<0.0150)	ND (<0.0242)	ND (<0.00664)	ND (<0.00918)
Bromodichloromethane	0.02	0.0003	0.09	ns	ns	ND (<0.00589)	ND (<0.00948)	ND (<0.00260)	ND (<0.00359)
Bromoform	0.02	0.0009	0.92	ns	ns	ND (<0.0106)	ND (<0.0171)	ND (<0.00469)	ND (<0.00649)
Bromomethane	0.09	0.0011	4.48	ns	ns	ND (<0.0142)	ND (<0.0229)	ND (<0.00629)	ND (<0.00869)
Carbon tetrachloride	0.02	0.0038	0.02	ns	ns	ND (<0.0107)	ND (<0.0172)	ND (<0.00471)	ND (<0.00652)
Chlorobenzene	0.02	0.0002	14	ns	ns	ND (<0.00346)	ND (<0.00557)	ND (<0.00153)	ND (<0.00211)
Chloroethane	0.06	0.0002	345	ns	ns	ND (<0.0120)	ND (<0.0194)	ND (<0.00532)	ND (<0.00736)
Chloroform	0.02	0.0022	2.5	ns	ns	ND (<0.00678)	ND (<0.0109)	ND (<0.00300)	ND (<0.00414)
Chloromethane	0.06	0.0016	76.9	ns	ns	ND (<0.0177)	ND (<0.0286)	ND (<0.00783)	ND (<0.0108)
cis-1,2-Dichloroethene	0.02	0.0006	0.08	ns	ns	ND (<0.00995)	ND (<0.0160)	ND (<0.00440)	ND (<0.00608)
cis-1,3-Dichloropropene	0.02	0.0002	0.12	ns	ns	ND (<0.00675)	ND (<0.0109)	ND (<0.00298)	ND (<0.00412)
Dibromochloromethane	0.03	0.0002	0.07	ns	ns	ND (<0.00584)	ND (<0.00940)	ND (<0.00258)	ND (<0.00356)
Dibromomethane	0.04	0.0003	800	ns	ns	ND (<0.0104)	ND (<0.0168)	ND (<0.00461)	ND (<0.00637)
Dichlorodifluoromethane (CFC-12)	0.06	0.0017	16000	ns	ns	ND (<0.0138)	ND (<0.0222)	ND (<0.00608)	ND (<0.00840)
Ethylbenzene	0.03	0.0003	18.1	ns	ns	ND (<0.00543)	ND (<0.00875)	ND (<0.00240)	ND (<0.00332)
Hexachloro-1,3-butadiene	0.10	0.0003	12.8	ns	ns	ND (<0.0186)	ND (<0.0300)	ND (<0.00823)	ND (<0.0114)
Isopropylbenzene	0.08	0.0003	8,000	ns	ns	ND (<0.00396)	ND (<0.00637)	ND (<0.00175)	ND (<0.00242)
Methylene chloride	0.02	0.0000	2.6	ns	ns	ND (<0.00728)	ND (<0.0117)	ND (<0.00322)	ND (<0.00445)
Naphthalene	0.03	0.0003	137	ns	ns	0.141	ND (<0.0131)	ND (<0.00360)	ND (<0.00497)
n-Butylbenzene	0.02	0.0004	0.02	ns	ns	ND (<0.00589)	ND (<0.00948)	ND (<0.00260)	ND (<0.00359)
n-Propylbenzene	0.02	0.0003	0.02	ns	ns	ND (<0.00379)	ND (<0.00611)	ND (<0.00168)	ND (<0.00232)
sec-Butylbenzene	0.02	0.0004	0.02	ns	ns	ND (<0.00373)	ND (<0.00601)	ND (<0.00165)	ND (<0.00228)
Styrenes	0.02	0.0003	0.03	ns	ns	ND (<0.00396)	ND (<0.00637)	ND (<0.00175)	ND (<0.00242)
tert-Butylbenzene	0.02	0.0003	0.02	ns	ns	ND (<0.00526)	ND (<0.00847)	ND (<0.00232)	ND (<0.00321)
Tetrachloroethene (PCE)	0.02	0.0003	0.04	ns	ns	ND (<0.00577)	ND (<0.00929)	ND (<0.00255)	ND (<0.00352)
Toluene	0.02	0.0008	109	ns	ns	ND (<0.00499)	ND (<0.00803)	ND (<0.00220)	ND (<0.00305)
Total Xylenes	0.03	0.0003	14.6	ns	ns	ND (<0.01219)	ND (<0.01961)	ND (<0.00539)	ND (<0.00724)
trans-1,2-Dichloroethene	0.02	0.0002	54.3	ns	ns	ND (<0.00724)	ND (<0.0117)	ND (<0.00320)	ND (<0.00442)
Trans-1,3-Dichloropropene	0.03	0.0001	0.12	ns	ns	ND (<0.00441)	ND (<0.00711)	ND (<0.00195)	ND (<0.00269)
Trichloroethene (TCE)	0.03	0.0003	0.2	ns	ns	ND (<0.0190)	ND (<0.0306)	ND (<0.00839)	ND (<0.0116)
Trichlorofluoromethane (CFC-11)	0.05	0.0004	24,000	ns	ns	ND (<0.00237)	ND (<0.00383)	ND (<0.00532)	ND (<0.00145)
Vinyl chloride	0.002	0.0013	0.015	ns	ns	ND (<0.00695)	ND (<0.0112)	ND (<0.00307)	ND (<0.00425)

Notes:

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

J = Estimated value

ns = not sampled

ND = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 19. Laboratory Data for Soil  
Tributyl Tin Ion (as Tributyl Tin Oxide) by EPA Method  
SW-846-8270D**

Analyte	Soil MRL	SOIL MDL	Preliminary Screening Level ( $\mu\text{g}/\text{kg}$ ) <sup>5</sup>	Laboratory Analytical Results (mg/kg)	
	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$		Sample ID: Method Blank	Sample ID: TC-MW-13-1'
Tributyl Tin (as TBT Ion)	1.773	4.000	7,400*	Date: NA Time: Depth: Comments:	Date: 4/26/2011 Time: 9:50 Depth: Comments:
				ND (<0.0039)	ND (<0.0034)

**Notes:**

ns = not sampled

\* based on April 1, 2011 updated CLARC value

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Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: Method Blank MEOH VOC Cooler 1	Sample ID: Method Blank MEOH VOC Cooler 2	Sample ID: Method Blank MEOH VOC Cooler 3	Sample ID: Method Blank MEOH VOC Cooler 4	Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'	Sample ID: TC-MW-3-2'
			Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
		mg/kg	Time:	Time:	Time:	Time:	Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45	Time: 14:50
			Depth:	Depth:	Depth:	Depth:	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 8'	Depth: 1'	Depth: 1'	Depth: 1'
		Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
1,2,4-Trichlorobenzene	0.1	2.6	0.05	0.05	0.05	0.05	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
1,2-Dichlorobenzene	0.1	15.2	0.02	0.02	0.02	0.02	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
1,2-Dinitrobenzene	0.1	32	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
1,3-Dichlorobenzene	0.1	0.1	0.02	0.02	0.02	0.02	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
1,3-Dinitrobenzene	0.5	8	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
1,4-Dichlorobenzene	0.1	0.1	0.02	0.02	0.02	0.02	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
1,4-Dinitrobenzene	0.5	32	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
1-Methylphtalene	0.1	0.1*	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.203	ND (<0.102)
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
2,4-Dichlorophenol	0.2	1.3	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
2,4-Dimethylphenol	0.1	5	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	0.234
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2-Chloranaphthalene	0.1	6.400	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2-Chlorophenol	0.1	1.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2-Methylphtalene	0.1	320*	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
2-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
2-Nitrophenol	0.2	0.2	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
3-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
4-Chloroaniline	0.5	0.5	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
4-Methylphenol (m-cresol)	0.1	400	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
4-Nitrophenol	0.5	0.5	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
Aniline	0.2	175	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
Azobenzene	0.1	9	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Benzoic Acid	0.2	257	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
Benzyl alcohol	0.1	24,000	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Butyl Benzylphthalate	0.1	351*	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
bis (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Carbazole	0.5	0.5*	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
Dibenzofuran	0.1	160*	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.587	ND (<0.102)
Diethylphthalate	0.1	160.2	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Dimethylphthalate	0.1	80,000*	ns	ns	ns	ns	0.558	ns	ns	7.920	ND (<0.895)	1.66	ND (<0.112)
Di-n-butylphthalate	0.1	103	ns	ns	ns	ns	ND (<0.105)	ns	ns	0.422	ND (<0.895)	ND (<0.107)	ND (<0.102)
Di-n-octyl phthalate	0.1	1,600	ns	ns	ns	ns	ND (<0.0843)	ns	ns	ND (<0.309)	ND (<0.716)	ND (<0.856)	ND (<0.0814)
Diphenylamine	0.5	2,000	ns	ns	ns	ns	ND (<0.527)	ns	ns	ND (<1.93)	ND (<4.470)	ND (<0.535)	ND (<0.509)
Hexachlorobenzene	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Hexachlorobutadiene	0.1	12.8	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Hexachlorocyclopentadiene	0.1	480	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Hexachloroethane	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Isophorone	0.1	3	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Nitrobenzene	0.2	2.9	ns	ns	ns	ns	ND (<0.211)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Pentachlorophenol	0.2	0.2*	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	ND (<0.107)	ND (<0.102)
Phenol	0.2	5,084.50	ns	ns	ns	ns	ND (<0.105)	ns	ns	ND (<0.773)	ND (<1.790)	ND (<0.214)	ND (<0.203)

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

bold = Non-detection value of analyte in exceedance of preliminary screening level.











Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: TC-MW-20-9 <sup>1</sup> -10 <sup>1</sup>	Sample ID: TC-SB-1-0.5 <sup>1</sup> -1 <sup>1</sup>	Sample ID: TC-SB-1-1 <sup>1</sup> -2 <sup>1</sup>	Sample ID: TC-SB-1-7 <sup>1</sup> -8 <sup>1</sup>	Sample ID: TC-SB-1-9 <sup>1</sup> -10 <sup>1</sup>	Sample ID: TC-SB-2-0.5 <sup>1</sup> -1 <sup>1</sup>	Sample ID: TC-SB-2-2 <sup>1</sup> -3 <sup>1</sup>	Sample ID: TC-SB-2-8 <sup>1</sup> -9 <sup>1</sup>	Sample ID: TC-SB-2-11 <sup>1</sup> -12 <sup>1</sup>	Sample ID: TC-SB-3-1 <sup>1</sup> -2 <sup>1</sup>	Sample ID: TC-SB-3-2 <sup>1</sup> -3 <sup>1</sup>		
			Date: 03/11/2014	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 14:35 Depth: 9'-10' Comments:	Time: 9:10 Depth: 0.5'-1' Comments:	Time: 9:13 Depth: 1'-2' Comments:	Time: 9:25 Depth: 7'-8' Comments:	Time: 9:30 Depth: 9'-10' Comments:	Time: 13:55 Depth: 0.5'-1' Comments:	Time: 14:00 Depth: 2'-3' Comments:	Time: 14:05 Depth: 8'-9' Comments:	Time: 14:10 Depth: 11'-12' Comments:	Time: 13:10 Depth: 1'-2' Comments:	Time: 13:15 Depth: 2'-3' Comments:		
1,2,4-Trichlorobenzene	0.1	2.6	ND (<0.0216)	ns	ns	ns	ns	ND (<0.0049)	ns	ns	ns	ns	ns		
1,2-Dichlorobenzene	0.1	15.2	ND (<0.0285)	ns	ns	ns	ns	ND (<0.00587)	ns	ns	ns	ns	ns		
1,2-Dinitrobenzene	0.1	32	ND (<0.0404)	ns	ns	ns	ns	ND (<0.0157)	ns	ns	ns	ns	ns		
1,3-Dichlorobenzene	0.1	0.1	ND (<0.0153)	ns	ns	ns	ns	ND (<0.00408)	ns	ns	ns	ns	ns		
1,3-Dinitrobenzene	0.5	8	ND (<0.150)	ns	ns	ns	ns	ND (<0.0113)	ns	ns	ns	ns	ns		
1,4-Dichlorobenzene	0.1	0.1	ND (<0.0305)	ns	ns	ns	ns	ND (<0.00612)	ns	ns	ns	ns	ns		
1,4-Dinitrobenzene	0.5	32	ND (<0.209)	ns	ns	ns	ns	ND (<0.0128)	ns	ns	ns	ns	ns		
1-Methylnaphthalene	0.1	0.1*	1.71	0.0583	ns	0.921	ns	0.0134 (J)	ns	0.356	ns	0.140	0.038 (J)		
2,3,4,6-Tetrachlorophenol	0.1	2,400	ND (<0.0173)	ns	ns	ns	ns	ND (<0.00526)	ns	ns	ns	ns	ns		
2,3,5,6-Tetrachlorophenol	0.1	0.1	ND (<0.0335)	ns	ns	ns	ns	ND (<0.00678)	ns	ns	ns	ns	ns		
2,4,5-Trichlorophenol	0.2	129.4	ND (<0.0854)	ns	ns	ns	ns	ND (<0.00859)	ns	ns	ns	ns	ns		
2,4,6-Trichlorophenol	0.2	0.2	ND (<0.0324)	ns	ns	ns	ns	ND (<0.00532)	ns	ns	ns	ns	ns		
2,4-Dichlorophenol	0.2	1.3	ND (<0.0316)	ns	ns	ns	ns	ND (<0.00475)	ns	ns	ns	ns	ns		
2,4-Dimethylphenol	0.1	5	ND (<0.0190)	ns	ns	ns	ns	ND (<0.00953)	ns	ns	ns	ns	ns		
2,4-Dinitrophenol	0.2	13.8*	ND (<0.230)	ns	ns	ns	ns	ND (<0.174)	ns	ns	ns	ns	ns		
2,4-Dinitrotoluene	0.1	0.1	ND (<0.241)	ns	ns	ns	ns	ND (<0.0178)	ns	ns	ns	ns	ns		
2,6-Dinitrotoluene	0.1	0.1	ND (<0.0223)	ns	ns	ns	ns	ND (<0.00682)	ns	ns	ns	ns	ns		
2-Chloronaphthalene	0.1	6.400	ND (<0.0228)	ns	ns	ns	ns	ND (<0.00361)	ns	ns	ns	ns	ns		
2-Chlorophenol	0.1	1.1	ND (<0.0297)	ns	ns	ns	ns	ND (<0.00333)	ns	ns	ns	ns	ns		
2-Methylnaphthalene	0.1	320*	2.210	0.0858	ns	1.160	ns	0.027 (J)	ns	0.385	ns	0.121	0.0623		
2-Methylphenol (o-cresol)	0.1	2.3	ND (<0.0397)	ns	ns	ns	ns	ND (<0.0062)	ns	ns	ns	ns	ns		
2-Nitroaniline	0.5	0.5	ND (<0.0438)	ns	ns	ns	ns	ND (<0.018)	ns	ns	ns	ns	ns		
2-Nitrophenol	0.2	0.2	0.723 (J)	ns	ns	ns	ns	0.0636 (J)	ns	ns	ns	ns	ns		
3-Methylphenol (p-cresol)	0.1	4,000	ND (<0.0260)	ns	ns	ns	ns	ND (<0.0143)	ns	ns	ns	ns	ns		
3-Nitroaniline	0.5	0.5	ND (<0.0232)	ns	ns	ns	ns	ND (<0.00621)	ns	ns	ns	ns	ns		
4,6-Dinitro-2-methylphenol	0.2	5	ND (<0.0911)	ns	ns	ns	ns	ND (<0.124)	ns	ns	ns	ns	ns		
4-Bromo phenyl phenyl ether	0.1	0.1	ND (<0.0397)	ns	ns	ns	ns	ND (<0.00609)	ns	ns	ns	ns	ns		
4-Chloro-3-methylphenol	0.5	6,100	ND (<0.0247)	ns	ns	ns	ns	ND (<0.0174)	ns	ns	ns	ns	ns		
4-Chloroaniline	0.5	0.5	ND (<0.0134)	ns	ns	ns	ns	ND (<0.00455)	ns	ns	ns	ns	ns		
4-Chlorophenyl phenyl ether	0.1	0.1	ND (<0.0346)	ns	ns	ns	ns	ND (<0.00503)	ns	ns	ns	ns	ns		
4-Methylphenol (m-cresol)	0.1	400	ND (<0.0314)	ns	ns	ns	ns	ND (<0.0144)	ns	ns	ns	ns	ns		
4-Nitrophenol	0.5	0.5	ND (<0.204)	ns	ns	ns	ns	0.115 (J)	ns	ns	ns	ns	ns		
Aniline	0.2	175	ND (<0.0210)	ns	ns	ns	ns	ND (<0.0098)	ns	ns	ns	ns	ns		
Azobenzene	0.1	9	ND (<0.0146)	ns	ns	ns	ns	ND (<0.0056)	ns	ns	ns	ns	ns		
Benzoic Acid	0.2	257	ND (<0.000491)	ns	ns	ns	ns	0.744	ns	ns	ns	ns	ns		
Benzyl alcohol	0.1	24,000	ND (<0.0199)	ns	ns	ns	ns	ND (<0.00939)	ns	ns	ns	ns	ns		
Butyl Benzophthalate	0.1	351*	ND (<0.0176)	ns	ns	ns	ns	0.104	ns	ns	ns	ns	ns		
bis (2-Ethylhexyl) adipate	0.1	833	2.770	ns	ns	ns	ns	ND (<0.0112)	ns	ns	ns	ns	ns		
bis (2-Ethylhexyl) phthalate	0.1	4.9	ND (<0.0132)	ns	ns	ns	ns	0.0552 (J)	ns	ns	ns	ns	ns		
Bis(2-chloroethoxy)methane	0.1	180	ND (<0.0257)	ns	ns	ns	ns	ND (<0.00853)	ns	ns	ns	ns	ns		
Bis(2-chloroethoxy)ether	0.2	0.2	ND (<0.0307)	ns	ns	ns	ns	ND (<0.00744)	ns	ns	ns	ns	ns		
Bis(2-chloroisopropyl)ether	0.1	3,200	ND (<0.0305)	ns	ns	ns	ns	ND (<0.00852)	ns	ns	ns	ns	ns		
Carbazole	0.5	0.5*	0.156 (J)	ns	ns	ns	ns	ND (<0.014)	ns	ns	ns	ns	ns		
Dibenzofuran	0.1	160*	0.622	ns	ns	ns	ns	ND (<0.0191)	ns	ns	ns	ns	ns		
Diethylphthalate	0.1	160.2	ND (<0.0722)	ns	ns	ns	ns	0.0384 (J)	ns	ns	ns	ns	ns		
Dimethylphthalate	0.1	80,000*	ND (<0.0164)	ns	ns	ns	ns	0.253 (J)	ns	ns	ns	ns	ns		
Di-n-butylphthalate	0.1	103	ND (<0.00642)	ns	ns	ns	ns	0.0429 (J)	ns	ns	ns	ns	ns		
Di-n-octyl phthalate	0.1	1,600	ND (<0.0124)	ns	ns	ns	ns	ND (<0.00653)	ns	ns	ns	ns	ns		
Diphenylamine	0.5	2,000	0.282 (J)	ns	ns	ns	ns	ND (<0.00719)	ns	ns	ns	ns	ns		
Hexachlorobenzene	0.1	0.1	ND (<0.0368)	ns	ns	ns	ns	ND (<0.0067)	ns	ns	ns	ns	ns		
Hexachlorobutadiene	0.1	12.8	ND (<0.0263)	ns	ns	ns	ns	ND (<0.00988)	ns	ns	ns	ns	ns		
Hexachlorocyclopentadiene	0.1	480	ND (<0.0263)	ns	ns	ns	ns	ND (<0.00793)	ns	ns	ns	ns	ns		
Hexachloroethane	0.1	0.1	ND (<0.177)	ns	ns	ns	ns	ND (<0.0165)	ns	ns	ns	ns	ns		
Isophorone	0.1	3	ND (<0.0158)	ns	ns	ns	ns	0.0184 (J)	ns	ns	ns	ns	ns		
Nitrobenzene	0.2	2.9	ND (<0.0676)	ns	ns	ns	ns	ND (<0.00994)	ns	ns	ns	ns	ns		
N-Nitroso-di-n-propylamine	0.1	0.1	ND (<0.0253)	ns	ns	ns	ns	ND (<0.0163)	ns	ns	ns	ns	ns		
Pentachlorophenol	0.2	0.2*	ND (<0.206)	ns	ns	ns	ns	ND (<0.00872)	ns	ns	ns	ns	ns		
Phenol	0.2	5,084.50	ND (<0.00210)	ns	ns	ns	ns	ND (<0.01020)	ns	ns	ns	ns	ns		

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRI = Laboratory Method Reporting Limit  
H = Holding time for sample preparation or analysis exceed  
J = Estimated value  
ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of

Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: TC-SB-3-3'-4'	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'	Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'	Sample ID: TC-SB-6-3'-4'	
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12	Date: 10/17/12
			Time: 13:17 Depth: 3'-4' Comments:	Time: 13:25 Depth: 9'-10' Comments:	Time: 12:40 Depth: 1'-2' Comments:	Time: 12:45 Depth: 3'-4' Comments:	Time: 12:50 Depth: 6'-7' Comments:	Time: 12:55 Depth: 9'-10' Comments:	Time: 14:45 Depth: 1'-2' Comments:	Time: 14:50 Depth: 2'-3' Comments:	Time: 14:55 Depth: 4'-5' Comments:	Time: 8:30 Depth: 2'-3' Comments:	Time: 8:35 Depth: 3'-4' Comments:	
1,2,4-Trichlorobenzene	0.1	2.6	ns	ns	ND (<0.00476)	ns	ND (<0.00762)	ns	ns	ns	ns	ND (<0.00713)	ns	
1,2-Dichlorobenzene	0.1	15.2	ns	ns	ND (<0.0057)	ns	ND (<0.00912)	ns	ns	ns	ns	ND (<0.0853)	ns	
1,2-Dinitrobenzene	0.1	32	ns	ns	ND (<0.0152)	ns	ND (<0.0244)	ns	ns	ns	ns	ND (<0.0228)	ns	
1,3-Dichlorobenzene	0.1	0.1	ns	ns	ND (<0.00396)	ns	ND (<0.00634)	ns	ns	ns	ns	ND (<0.00593)	ns	
1,3-Dinitrobenzene	0.5	8	ns	ns	ND (<0.0109)	ns	ND (<0.0175)	ns	ns	ns	ns	ND (<0.0163)	ns	
1,4-Dichlorobenzene	0.1	0.1	ns	ns	ND (<0.00594)	ns	ND (<0.0095)	ns	ns	ns	ns	ND (<0.00889)	ns	
1,4-Dinitrobenzene	0.5	32	ns	ns	ND (<0.0124)	ns	ND (<0.0198)	ns	ns	ns	ns	ND (<0.0186)	ns	
1-Methylphthalene	0.1	0.1*	ns	ns	0.0421(J)	ns	0.0196(J)	ns	ns	ns	ns	0.0213(J)	ns	
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ND (<0.00511)	ns	ND (<0.00817)	ns	ns	ns	ns	ND (<0.00764)	ns	
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ND (<0.00658)	ns	ND (<0.0105)	ns	ns	ns	ns	ND (<0.00985)	ns	
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ND (<0.00834)	ns	ND (<0.0133)	ns	ns	ns	ns	ND (<0.0125)	ns	
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ND (<0.00516)	ns	ND (<0.00826)	ns	ns	ns	ns	ND (<0.00773)	ns	
2,4-Dichlorophenol	0.2	1.3	ns	ns	ND (<0.00461)	ns	ND (<0.00738)	ns	ns	ns	ns	ND (<0.0138)	ns	
2,4-Dimethylphenol	0.1	5	ns	ns	ND (<0.00925)	ns	ND (<0.0148)	ns	ns	ns	ns	ND (<0.0138)	ns	
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ND (<0.169)	ns	ND (<0.271)	ns	ns	ns	ns	ND (<0.253)	ns	
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ND (<0.0172)	ns	ND (<0.0276)	ns	ns	ns	ns	ND (<0.0258)	ns	
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ND (<0.00662)	ns	ND (<0.0106)	ns	ns	ns	ns	ND (<0.00992)	ns	
2-Chloronaphthalene	0.1	6.400	ns	ns	ND (<0.00351)	ns	ND (<0.00561)	ns	ns	ns	ns	ND (<0.00525)	ns	
2-Chlorophenol	0.1	1.1	ns	ns	ND (<0.00324)	ns	ND (<0.00518)	ns	ns	ns	ns	ND (<0.00485)	ns	
2-Methylphthalene	0.1	320*	ns	ns	0.060	ns	0.0249(J)	ns	ns	ns	ns	0.0419(J)	ns	
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	0.0275(J)	ns	0.0479(J)	ns	ns	ns	ns	ND (<0.009)	ns	
2-Nitroaniline	0.5	0.5	ns	ns	ND (<0.0175)	ns	ND (<0.0279)	ns	ns	ns	ns	ND (<0.0261)	ns	
2-Nitrophenol	0.2	0.2	ns	ns	0.0487(J)	ns	0.101(J)	ns	ns	ns	ns	0.121(J)	ns	
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	0.486	ns	0.782	ns	ns	ns	ns	0.078(J)	ns	
3-Nitroaniline	0.5	0.5	ns	ns	ND (<0.00603)	ns	ND (<0.00965)	ns	ns	ns	ns	ND (<0.00903)	ns	
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ND (<0.12)	ns	ND (<0.192)	ns	ns	ns	ns	ND (<0.18)	ns	
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ND (<0.00592)	ns	ND (<0.00947)	ns	ns	ns	ns	ND (<0.00732)	ns	
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ND (<0.169)	ns	ND (<0.027)	ns	ns	ns	ns	ND (<0.0253)	ns	
4-Chloroaniline	0.5	0.5	ns	ns	ND (<0.00442)	ns	ND (<0.00707)	ns	ns	ns	ns	ND (<0.00661)	ns	
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ND (<0.00489)	ns	ND (<0.00782)	ns	ns	ns	ns	ND (<0.00732)	ns	
4-Methylphenol (m-cresol)	0.1	400	ns	ns	0.486	ns	0.782	ns	ns	ns	ns	0.078(J)	ns	
4-Nitrophenol	0.5	0.5	ns	ns	0.164(J)	ns	0.371(J)	ns	ns	ns	ns	0.326(J)	ns	
Aniline	0.2	175	ns	ns	0.0875(J)	ns	0.287(J)	ns	ns	ns	ns	ND (<0.0142)	ns	
Azobenzene	0.1	9	ns	ns	ND (<0.00544)	ns	ND (<0.00871)	ns	ns	ns	ns	ND (<0.00814)	ns	
Benzoic Acid	0.2	257	ns	ns	0.326	ns	0.472	ns	ns	ns	ns	0.429	ns	
Benzyl alcohol	0.1	24,000	ns	ns	ND (<0.00911)	ns	ND (<0.0146)	ns	ns	ns	ns	ND (<0.0136)	ns	
Butyl Benzylphthalate	0.1	351*	ns	ns	ND (<0.0136)	ns	ND (<0.0217)	ns	ns	ns	ns	ND (<0.0203)	ns	
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ND (<0.0109)	ns	ND (<0.0174)	ns	ns	ns	ns	ND (<0.0163)	ns	
bis (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	0.0807(J)	ns	ND (<0.0124)	ns	ns	ns	ns	0.366	ns	
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ND (<0.00828)	ns	ND (<0.0132)	ns	ns	ns	ns	ND (<0.0124)	ns	
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ND (<0.00722)	ns	ND (<0.0116)	ns	ns	ns	ns	ND (<0.0108)	ns	
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ND (<0.00827)	ns	ND (<0.0132)	ns	ns	ns	ns	ND (<0.0124)	ns	
Carbazole	0.5	0.5*	ns	ns	ND (<0.0136)	ns	ND (<0.0218)	ns	ns	ns	ns	ND (<0.0204)	ns	
Dibenzofuran	0.1	160*	ns	ns	ND (<0.0193)	ns	ns	ns	ns	ns	ns	0.432(J)	ns	
Diethylphthalate	0.1	160.2	ns	ns	0.0207(J)	ns	0.0497(J)	ns	ns	ns	ns	0.037(J)	ns	
Dimethylphthalate	0.1	80,000*	ns	ns	ND (<0.00853)	ns	ND (<0.0137)	ns	ns	ns	ns	ND (<0.0128)	ns	
Di-n-butylphthalate	0.1	103	ns	ns	0.0368(J)	ns	0.0678(J)	ns	ns	ns	ns	0.0898(J)	ns	
Di-n-octyl phthalate	0.1	1,600	ns	ns	ND (<0.00634)	ns	ND (<0.0102)	ns	ns	ns	ns	ND (<0.0095)	ns	
Diphenylamine	0.5	2,000	ns	ns	ND (<0.00698)	ns	ND (<0.0112)	ns	ns	ns	ns	ND (<0.0104)	ns	
Hexachlorobenzene	0.1	0.1	ns	ns	ND (<0.00665)	ns	ND (<0.0104)	ns	ns	ns	ns	ND (<0.00974)	ns	
Hexachlorobutadiene	0.1	12.8	ns	ns	ND (<0.00959)	ns	ND (<0.0154)	ns	ns	ns	ns	ND (<0.0144)	ns	
Hexachlorocyclopentadiene	0.1	480	ns	ns	ND (<0.00769)	ns	ND (<0.0123)	ns	ns	ns	ns	ND (<0.0115)	ns	
Hexachloroethane	0.1	0.1	ns	ns	ND (<0.0161)	ns	ND (<0.0257)	ns	ns	ns	ns	ND (<0.024)	ns	
Isophorone	0.1	3	ns	ns	0.0125(J)	ns	ND (<0.00806)	ns	ns	ns	ns	0.0238(J)	ns	
Nitrobenzene	0.2	2.9	ns	ns	ND (<0.00965)	ns	ND (<0.0154)	ns	ns	ns	ns	ND (<0.0144)	ns	
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ND (<0.0158)	ns	ND (<0.0253)	ns	ns	ns	ns	ND (<0.0236)	ns	
Pentachlorophenol	0.2	0.2*	ns	ns	ND (<0.00846)	ns	ND (<0.0135)	ns	ns	ns	ns	0.0853(J)	ns	
Phenol	0.2	5,084.50	ns	ns	0.0828(J)	ns	0.433	ns	ns	ns	ns	ND (<0.0148)	ns	

**Notes:**  
All results expressed in milligrams per kilogram (mg/kg)  
\* based on April 1, 2011 updated CLARC value  
MRI = Laboratory Method Reporting Limit  
H = Holding time for sample preparation or analysis exceed  
J = Estimated value  
ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of



Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'	Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'	Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'	Sample ID: TC-SB-13-1'-2'	
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 11:05	Time: 11:08	Time: 11:10	Time: 11:14	Time: 10:45	Time: 10:47	Time: 10:50	Time: 10:55	Time: 8:45	Time: 8:53	Time: 12:00	
mg/kg	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'			
Comments:			Comments:			Comments:			Comments:			Comments:		
1,2,4-Trichlorobenzene	0.1	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00511)
1,2-Dichlorobenzene	0.1	15.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00612)
1,2-Dinitrobenzene	0.1	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0164)
1,3-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00425)
1,3-Dinitrobenzene	0.5	8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0117)
1,4-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00638)
1,4-Dinitrobenzene	0.5	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0133)
1-Methylnaphthalene	0.1	0.1*	0.0264	ns	0.0262	ns	0.0769	ns	0.0398 (J)	ns	ns	ns	ns	0.0303 (J)
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00549)
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00707)
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00896)
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00554)
2,4-Dichlorophenol	0.2	1.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00495)
2,4-Dimethylphenol	0.1	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00994)
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.182)
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0185)
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00712)
2-Chloronaphthalene	0.1	6,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00377)
2-Chlorophenol	0.1	1.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00348)
2-Methylnaphthalene	0.1	320*	0.0469	ns	0.0356	ns	0.126	ns	0.0525 (J)	ns	ns	ns	ns	0.0505 (J)
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00646)
2-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0187)
2-Nitrophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0466 (J)
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0286 (J)
3-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00648)
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.129)
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00525)
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0181)
4-Chloroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00475)
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00636)
4-Methylphenol (m-cresol)	0.1	400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0286 (J)
4-Nitrophenol	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.114)
Aniline	0.2	175	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0102)
Azobenzene	0.1	9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00585)
Benzoic Acid	0.2	257	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.232
Benzyl alcohol	0.1	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00979)
Butyl Benzylphthalate	0.1	351*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0146)
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0117)
bis (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0521 (J)
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00889)
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00776)
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00889)
Carbazole	0.5	0.5*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0717 (J)
Dibenzofuran	0.1	160*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0306 (J)
Diethylphthalate	0.1	160.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0229 (J)
Dimethylphthalate	0.1	80,000*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00917)
Di-n-butylphthalate	0.1	103	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.032 (J)
Di-n-octyl phthalate	0.1	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00682)
Diphenylamine	0.5	2,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00749)
Hexachlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00699)
Hexachlorobutadiene	0.1	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0103)
Hexachlorocyclopentadiene	0.1	480	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00827)
Hexachloroethane	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0173)
Isophorone	0.1	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00541)
Nitrobenzene	0.2	2.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0104)
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.017)
Pentachlorophenol	0.2	0.2*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00909)
Phenol	0.2	5,084.50	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0106)

**Notes:**  
 All results expressed in milligrams per kilogram (mg/kg)  
 \* based on April 1, 2011 updated CLARC value  
 MRI = Laboratory Method Reporting Limit  
 H = Holding time for sample preparation or analysis exceed  
 J = Estimated value  
 ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of L



Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>§</sup>	Sample ID: TC-SB-13-2-'3'	Sample ID: TC-SB-13-4-'5'	Sample ID: TC-SB-14-4-'5'	Sample ID: DUP of TC-SB-14-4-'5'	Sample ID: TC-SB-14-9-'10'	Sample ID: TC-SB-15-0-'5-'1'	Sample ID: TC-SB-15-1-'2'	Sample ID: TC-SB-15-2-'3'	Sample ID: TC-SB-15-6-'7'	Sample ID: TC-SB-15-14-'15'	Sample ID: TC-SB-16-1-'2'	
			Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
			Time: 12:03 Depth: 2'-3' Comments:	Time: 12:07 Depth: 4'-5' Comments:	Time: 8:40 Depth: 4'-5' Comments:	Time: 8:45 Depth: 4'-5' Comments:	Time: 8:50 Depth: 9'-10' Comments:	Time: 14:30 Depth: 0.5-'1' Comments:	Time: 14:33 Depth: 1'-2' Comments:	Time: 14:35 Depth: 2'-3' Comments:	Time: 14:40 Depth: 6-'7' Comments:	Time: 14:50 Depth: 14'-15' Comments: H	Time: 12:10 Depth: 1'-2' Comments:	
1,2,4-Trichlorobenzene	0.1	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00558)	ns	
1,2-Dichlorobenzene	0.1	15.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00668)	ns	
1,2-Dinitrobenzene	0.1	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0179)	ns	
1,3-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00464)	ns	
1,3-Dinitrobenzene	0.5	8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0128)	ns	
1,4-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00695)	ns	
1,4-Dinitrobenzene	0.5	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0145)	ns	
1-Methylnaphthalene	0.1	0.1*	ns	ns	ns	ns	ns	0.164	ns	0.0602	0.183	ND (<0.00861) H	ND (<0.000558)	
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00598)	ns	
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00771)	ns	
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00977)	ns	
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00604)	ns	
2,4-Dichlorophenol	0.2	1.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0054)	ns	
2,4-Dimethylphenol	0.1	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0108)	ns	
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.198)	ns	
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0202)	ns	
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00776)	ns	
2-Chloronaphthalene	0.1	6,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00411)	ns	
2-Chlorophenol	0.1	1.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00379)	ns	
2-Methylnaphthalene	0.1	320*	ns	ns	ns	ns	ns	0.214	ns	0.0818	0.183	0.0203	ND (<0.00098)	
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00704)	ns	
2-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0204)	ns	
2-Nitrophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	0.0572 (J)	0.426	0.151	ns	
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0164)	ns	
3-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00706)	ns	
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.141)	ns	
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00693)	ns	
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0198)	ns	
4-Chloroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00518)	ns	
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00572)	ns	
4-Methylphenol (m-cresol)	0.1	400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0162)	ns	
4-Nitrophenol	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.124)	ns	
Aniline	0.2	175	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.011)	ns	
Azobenzene	0.1	9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00637)	ns	
Benzoic Acid	0.2	257	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.15 (J)	ns	
Benzyl alcohol	0.1	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0107)	ns	
Butyl Benzophthalate	0.1	351*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0159)	ns	
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0128)	ns	
bis (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.033)	ns	
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0626 (J)	ns	
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.097)	ns	
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00846)	ns	
Carbazole	0.5	0.5*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.025)	ns	
Dibenzofuran	0.1	160*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0159)	ns	
Diethylphthalate	0.1	160.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0413 (J)	ns	
Dimethylphthalate	0.1	80,000*	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0235 (J)	ns	
Di-n-butylphthalate	0.1	103	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.307	ns	
Di-n-octyl phthalate	0.1	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.032 (J)	ns	
Diphenylamine	0.5	2,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00743)	ns	
Hexachlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00817)	ns	
Hexachlorobutadiene	0.1	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00762)	ns	
Hexachlorocyclopentadiene	0.1	480	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0112)	ns	
Hexachloroethane	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.029)	ns	
Isophorone	0.1	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.00901)	ns	
Nitrobenzene	0.2	2.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0188)	ns	
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0059)	ns	
Pentachlorophenol	0.2	0.2*	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.0731 (J)	ns	
Phenol	0.2	5,084.50	ns	ns	ns	ns	ns	ns	ns	ns	ns	ND (<0.0113)	ns	
												ND (<0.0292)	ns	
												ND (<0.0185)	ns	
												ND (<0.00991)	ns	
												ND (<0.0256)	ns	
												ND (<0.0116)	ns	
												ND (<0.0299)	ns	

**Notes:**  
 All results expressed in milligrams per kilogram (mg/kg)  
 \* based on April 1, 2011 updated CLARC value  
 MRI = Laboratory Method Reporting Limit  
 H = Holding time for sample preparation or analysis exceed  
 J = Estimated value  
 ns = not sampled  
**bold** = Non-detection value of analyte in exceedance of

Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: TC-SB-16-2-3 <sup>1</sup>	Sample ID: DUP of TC-SB-16-2-3 <sup>1</sup>	Sample ID: TC-SB-16-4-5 <sup>1</sup>	Sample ID: TC-SB-16-14-15 <sup>1</sup>	Sample ID: TC-SB-17-1-2 <sup>1</sup>	Sample ID: TC-SB-17-2-3 <sup>1</sup>	Sample ID: TC-SB-17-4-5 <sup>1</sup>	Sample ID: TC-SB-17-14-15 <sup>1</sup>	Sample ID: TC-SB-18-1-2 <sup>1</sup>	Sample ID: TC-SB-18-4-5 <sup>1</sup>	Sample ID: TC-SB-18-9-10 <sup>1</sup>	
			Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
			Time: 12:15 Depth: 2'-3' Comments:	Time: 12:20 Depth: 2'-3' Comments:	Time: 12:25 Depth: 4'-5' Comments:	Time: 12:40 Depth: 14'-15' Comments:	Time: 15:30 Depth: 1'-2' Comments:	Time: 15:35 Depth: 2'-3' Comments:	Time: 15:38 Depth: 4'-5' Comments:	Time: 15:45 Depth: 14'-15' Comments:	Time: 10:25 Depth: 1'-2' Comments:	Time: 10:30 Depth: 4'-5' Comments:	Time: 10:35 Depth: 9'-10' Comments:	
1,2,4-Trichlorobenzene	0.1	2.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dichlorobenzene	0.1	15.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,2-Dinitrobenzene	0.1	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,3-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,3-Dinitrobenzene	0.5	8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,4-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1,4-Dinitrobenzene	0.5	32	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
1-Methylaphthalene	0.1	0.1*	ns	0.0426 (J)	ns	ns	0.0201 (J)	ns	ns	ns	0.00911 (J)	ns	ns	
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4-Dichlorophenol	0.2	1.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4-Dimethylphenol	0.1	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Chloronaphthalene	0.1	6,400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Chlorophenol	0.1	1.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Methylaphthalene	0.1	320*	ns	0.0732	ns	ns	0.0284 (J)	ns	ns	ns	0.0175 (J)	ns	ns	
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
2-Nitrophenol	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
3-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Chloroaniline	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Methylphenol (m-cresol)	0.1	400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
4-Nitrophenol	0.5	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Aniline	0.2	175	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Azobenzene	0.1	9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Benzoic Acid	0.2	257	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Benzyl alcohol	0.1	24,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Butyl Benzophthalate	0.1	351*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
bis (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Carbazole	0.5	0.5*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Dibenzofuran	0.1	160*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Diethylphthalate	0.1	160.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Dimethylphthalate	0.1	80,000*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Di-n-butylphthalate	0.1	103	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Di-n-octyl phthalate	0.1	1,600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Diphenylamine	0.5	2,000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Hexachlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Hexachlorobutadiene	0.1	12.8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Hexachlorocyclopentadiene	0.1	480	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Hexachloroethane	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Isophorone	0.1	3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrobenzene	0.2	2.9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Pentachlorophenol	0.2	0.2*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Phenol	0.2	5,084.50	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

**Notes:**  
 All results expressed in milligrams per kilogram (mg/kg)  
 \* based on April 1, 2011 updated CLARC value  
 MRI = Laboratory Method Reporting Limit  
 H = Holding time for sample preparation or analysis exceed  
 J = Estimated value  
 ns = not sampled  
**bold** = Non-detection value of analyte in exceedance of p

Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRI	Preliminary Screening Level (mg/kg) <sup>3</sup>	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'-10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'	Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'	Sample ID: TC-SB-22-4'-5'	Sample ID: TC-SB-22-9'-10'	Sample ID: TC-SB-23-4'-5'	
			Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/16/12	Date: 10/16/12	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014
			Time: 11:20	Time: 11:25	Time: 11:30	Time: 9:50	Time: 9:55	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:05	Time: 10:00	Time: 10:15	Time: 9:30
			Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 9'-10'
			Comments:	Comments: H	Comments:	Comments:	Comments:	Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:	
1,2,4-Trichlorobenzene	0.1	2.6	ns	ns	ns	ns	ns	ND (<0.00858) H	ns	ns	ND (<0.00956)	ND (<0.00956)	ND (<0.00943)	
1,2-Dichlorobenzene	0.1	15.2	ns	ns	ns	ns	ns	ND (<0.0103) H	ns	ns	ND (<0.0114)	ND (<0.0126)	ND (<0.0124)	
1,2-Dinitrobenzene	0.1	32	ns	ns	ns	ns	ns	ND (<0.0275) H	ns	ns	ND (<0.0162)	ND (<0.0179)	ND (<0.0177)	
1,3-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.00714) H	ns	ns	ND (<0.00614)	ND (<0.00678)	ND (<0.00669)	
1,3-Dinitrobenzene	0.5	8	ns	ns	ns	ns	ns	ND (<0.0197) H	ns	ns	ND (<0.0600)	ND (<0.0663)	ND (<0.0654)	
1,4-Dichlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0107) H	ns	ns	ND (<0.0122)	ND (<0.0136)	ND (<0.0133)	
1,4-Dinitrobenzene	0.5	32	ns	ns	ns	ns	ns	ND (<0.0223) H	ns	ns	ND (<0.0836)	ND (<0.0924)	ND (<0.0912)	
1-Methylnaphthalene	0.1	0.1*	0.0211 (J)	ND (<0.00114) H	ns	0.195	ns	0.0803 H	ns	ns	0.0525 (J)	0.0218 (J)	0.0319	
2,3,4,6-Tetrachlorophenol	0.1	2,400	ns	ns	ns	ns	ns	ND (<0.0092) H	ns	ns	ND (<0.00692)	ND (<0.00765)	ND (<0.00755)	
2,3,5,6-Tetrachlorophenol	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0119) H	ns	ns	ND (<0.0134)	ND (<0.0148)	ND (<0.0146)	
2,4,5-Trichlorophenol	0.2	129.4	ns	ns	ns	ns	ns	ND (<0.015) H	ns	ns	ND (<0.0342)	ND (<0.0378)	ND (<0.0373)	
2,4,6-Trichlorophenol	0.2	0.2	ns	ns	ns	ns	ns	ND (<0.0093) H	ns	ns	ND (<0.0130)	ND (<0.0143)	ND (<0.0142)	
2,4-Dichlorophenol	0.2	1.3	ns	ns	ns	ns	ns	ND (<0.00831) H	ns	ns	ND (<0.0127)	ND (<0.0140)	ND (<0.0138)	
2,4-Dimethylphenol	0.1	5	ns	ns	ns	ns	ns	ND (<0.0167) H	0.124 (J)	ns	ND (<0.00842)	ND (<0.00831)	ns	
2,4-Dinitrophenol	0.2	13.8*	ns	ns	ns	ns	ns	ND (<0.305) H	ns	ns	ND (<0.0921)	ND (<0.102)	ND (<0.100)	
2,4-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0311) H	ns	ns	ND (<0.0967)	ND (<0.107)	ND (<0.105)	
2,6-Dinitrotoluene	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0119) H	ns	ns	ND (<0.00896)	ND (<0.00989)	ND (<0.00976)	
2-Chloronaphthalene	0.1	6,400	ns	ns	ns	ns	ns	ND (<0.00632) H	ns	ns	ND (<0.00912)	ND (<0.0101)	ND (<0.00994)	
2-Chlorophenol	0.1	1.1	ns	ns	ns	ns	ns	ND (<0.00583) H	ns	ns	ND (<0.0119)	ND (<0.0132)	ND (<0.0130)	
2-Methylnaphthalene	0.1	320*	0.0393 (J)	0.0307 (J) H	ns	0.375	ns	0.0436 (J) H	ns	ns	0.0854	0.0352 (J)	0.0489 (J)	
2-Methylphenol (o-cresol)	0.1	2.3	ns	ns	ns	ns	ns	ND (<0.0108) H	ns	ns	ND (<0.0711)	ND (<0.0176)	ND (<0.0173)	
2-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ND (<0.0315) H	ns	ns	ND (<0.0176)	ND (<0.0194)	ND (<0.0192)	
2-Nitrophenol	0.2	0.2	ns	ns	ns	ns	ns	0.137 H	0.265 (J)	0.434	0.355	0.355	0.355	
3-Methylphenol (p-cresol)	0.1	4,000	ns	ns	ns	ns	ns	ND (<0.025) H	ns	ns	0.416	144	0.250	
3-Nitroaniline	0.5	0.5	ns	ns	ns	ns	ns	ND (<0.0109) H	ns	ns	ND (<0.00929)	ND (<0.0103)	ND (<0.0101)	
4,6-Dinitro-2-methylphenol	0.2	5	ns	ns	ns	ns	ns	ND (<0.216) H	ns	ns	ND (<0.0365)	ND (<0.0403)	ND (<0.0398)	
4-Bromo phenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0107) H	ns	ns	ND (<0.0159)	ND (<0.0176)	ND (<0.0173)	
4-Chloro-3-methylphenol	0.5	6,100	ns	ns	ns	ns	ns	ND (<0.0304) H	ns	ns	ND (<0.00991)	ND (<0.0109)	ND (<0.0108)	
4-Chloroaniline	0.5	0.5	ns	ns	ns	ns	ns	ND (<0.00796) H	ns	ns	ND (<0.00538)	ND (<0.00594)	ND (<0.00586)	
4-Chlorophenyl phenyl ether	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.00881) H	ns	ns	ND (<0.0139)	ND (<0.0153)	ND (<0.0151)	
4-Methylphenol (m-cresol)	0.1	400	ns	ns	ns	ns	ns	ND (<0.0252) H	ns	ns	0.416	0.144 (J)	0.250	
4-Nitrophenol	0.5	0.5	ns	ns	ns	ns	ns	ND (<0.192) H	ns	ns	ND (<0.0818)	ND (<0.0904)	ND (<0.0892)	
Aniline	0.2	175	ns	ns	ns	ns	ns	ND (<0.0171) H	ns	ns	ND (<0.00842)	ND (<0.0931)	ND (<0.0918)	
Azobenzene	0.1	9	ns	ns	ns	ns	ns	ND (<0.00981) H	ns	ns	ND (<0.00585)	ND (<0.00646)	ND (<0.00637)	
Benzoic Acid	0.2	257	ns	ns	ns	ns	ns	0.449 H	ns	ns	0.645	ND (<0.000218)	ND (<0.000215)	
Benzyl alcohol	0.1	24,000	ns	ns	ns	ns	ns	ND (<0.0164) H	ns	ns	ND (<0.00797)	0.154 (J)	ND (<0.00869)	
Butyl Benzophthalate	0.1	351*	ns	ns	ns	ns	ns	ND (<0.0245) H	ns	ns	ND (<0.00705)	ND (<0.00778)	ND (<0.00768)	
bis (2-Ethylhexyl) adipate	0.1	833	ns	ns	ns	ns	ns	ND (<0.0196) H	ns	ns	ND (<0.00800)	ND (<0.00884)	ND (<0.00872)	
bit (2-Ethylhexyl) phthalate	0.1	4.9	ns	ns	ns	ns	ns	ND (<0.014) H	ns	ns	0.332	0.242	ND (<0.00576)	
Bis(2-chloroethoxy)methane	0.1	180	ns	ns	ns	ns	ns	ND (<0.0149) H	ns	ns	ND (<0.0103)	ND (<0.0114)	ND (<0.0112)	
Bis(2-chloroethoxy)ether	0.2	0.2	ns	ns	ns	ns	ns	ND (<0.013) H	ns	ns	ND (<0.0123)	ND (<0.0136)	ND (<0.0134)	
Bis(2-chloroisopropyl)ether	0.1	3,200	ns	ns	ns	ns	ns	ND (<0.0149) H	ns	ns	ND (<0.0122)	ND (<0.0135)	ND (<0.0133)	
Carbazole	0.5	0.5*	ns	ns	ns	ns	ns	ND (<0.0245) H	ns	ns	0.0187 (J)	ND (<0.0133)	0.0244 (J)	
Dibenzofuran	0.1	160*	ns	ns	ns	ns	ns	0.0983 (J) H	0.0478 (J)	ns	0.0478 (J)	0.0307 (J)	0.0373 (J)	
Diethylphthalate	0.1	160.2	ns	ns	ns	ns	ns	0.0739 (J) H	ns	ns	ND (<0.0289)	0.0767 (J)	ND (<0.0315)	
Dimethylphthalate	0.1	80,000*	ns	ns	ns	ns	ns	ND (<0.0154) H	ns	ns	ND (<0.00659)	ND (<0.00728)	ND (<0.00718)	
Di-n-butylphthalate	0.1	103	ns	ns	ns	ns	ns	0.0329 (J) H	ns	ns	ND (<0.00258)	ND (<0.00285)	ND (<0.00281)	
Di-n-octyl phthalate	0.1	1,600	ns	ns	ns	ns	ns	ND (<0.0114) H	ns	ns	ND (<0.00499)	110	ND (<0.00543)	
Diphenylamine	0.5	2,000	ns	ns	ns	ns	ns	ND (<0.0126) H	0.0992 (J)	ns	ND (<0.00666)	ND (<0.00657)	ns	
Hexachlorobenzene	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0117) H	ns	ns	ND (<0.0147)	ND (<0.0163)	ND (<0.0161)	
Hexachlorobutadiene	0.1	12.8	ns	ns	ns	ns	ns	ND (<0.0173) H	ns	ns	ND (<0.0106)	ND (<0.0117)	ND (<0.0115)	
Hexachlorocyclopentadiene	0.1	480	ns	ns	ns	ns	ns	ND (<0.0139) H	ns	ns	ND (<0.0106)	ND (<0.0117)	ND (<0.0115)	
Hexachloroethane	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0289) H	ns	ns	ND (<0.0711)	ND (<0.0785)	ND (<0.0775)	
Isophorone	0.1	3	ns	ns	ns	ns	ns	ND (<0.00908) H	ns	ns	ND (<0.00433)	ND (<0.00700)	ND (<0.00690)	
Nitrobenzene	0.2	2.9	ns	ns	ns	ns	ns	ND (<0.0174) H	ns	ns	ND (<0.0271)	ND (<0.0300)	ND (<0.0296)	
N-Nitroso-di-n-propylamine	0.1	0.1	ns	ns	ns	ns	ns	ND (<0.0285) H	ns	ns	ND (<0.0102)	ND (<0.0112)	ND (<0.0111)	
Pentachlorophenol	0.2	0.2*	ns	ns	ns	ns	ns	ND (<0.0153) H	ns	ns	ND (<0.0827)	ND (<0.0914)	ND (<0.0902)	
Phenol	0.2	5,084.50	ns	ns	ns	ns	ns	ND (<0.0178) H	ns	ns	0.401	0.101 (J)	ND (<0.00920)	

Notes:

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**ns** = Non-detection value of analyte in exceedance of

Table 20. Laboratory Data for Soil  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg) <sup>5</sup>	Sample ID: TC-SB-23-9-10 <sup>1</sup>	Sample ID: TC-SB-24-2 <sup>2</sup>	Sample ID: TC-SB-24-4-5 <sup>3</sup>	Sample ID: TC-SB-25-2 <sup>4</sup>		
			Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014		
			Time: 9:35	Time: 11:30	Time: 11:30	Time: 13:00		
			Depth: 9'-10' <sup>1</sup>	Depth: 2' <sup>2</sup>	Depth: 4'-5' <sup>3</sup>	Depth: 2' <sup>4</sup>		
Comments:			Comments:			Comments:		
1,2,4-Trichlorobenzene	0.1	2.6	ND (<0.0246)	ns	ns	ns		
1,2-Dichlorobenzene	0.1	15.2	ND (<0.0324)	ns	ns	ns		
1,2-Dinitrobenzene	0.1	32	ND (<0.0460)	ns	ns	ns		
1,3-Dichlorobenzene	0.1	0.1	ND (<0.0174)	ns	ns	ns		
1,3-Dinitrobenzene	0.5	8	ND (<0.170)	ns	ns	ns		
1,4-Dichlorobenzene	0.1	0.1	ND (<0.0347)	ns	ns	ns		
1,4-Dinitrobenzene	0.5	32	ND (<0.237)	ns	ns	ns		
1-Methylphthalene	0.1	0.1*	0.111	0.00895 [J]	0.03 [J]	0.0694		
2,3,4,6-Tetrachlorophenol	0.1	2,400	ND (<0.197)	ns	ns	ns		
2,3,5,6-Tetrachlorophenol	0.1	0.1	ND (<0.0381)	ns	ns	ns		
2,4,5-Trichlorophenol	0.2	129.4	ND (<0.0972)	ns	ns	ns		
2,4,6-Trichlorophenol	0.2	0.2	ND (<0.0369)	ns	ns	ns		
2,4-Dichlorophenol	0.2	1.3	ND (<0.0360)	ns	ns	ns		
2,4-Dimethylphenol	0.1	5	ND (<0.0216)	ns	ns	ns		
2,4-Dinitrophenol	0.2	13.8*	ND (<0.261)	ns	ns	ns		
2,4-Dinitrotoluene	0.1	0.1	ND (<0.274)	ns	ns	ns		
2,6-Dinitrotoluene	0.1	0.1	ND (<0.0254)	ns	ns	ns		
2-Chloranaphthalene	0.1	6.400	ND (<0.0259)	ns	ns	ns		
2-Chlorophenol	0.1	1.1	ND (<0.0338)	ns	ns	ns		
2-Methylphthalene	0.1	320*	0.144 [J]	0.0152 [J]	0.0423 [J]	0.146		
2-Methylphenol (o-cresol)	0.1	2.3	ND (<0.0452)	ns	ns	ns		
2-Nitroaniline	0.5	0.5	ND (<0.0499)	ns	ns	ns		
2-Nitrophenol	0.2	0.2	1.410	ns	ns	ns		
3-Methylphenol (p-cresol)	0.1	4,000	0.891	ns	ns	ns		
3-Nitroaniline	0.5	0.5	ND (<0.0264)	ns	ns	ns		
4,6-Dinitro-2-methylphenol	0.2	5	ND (<0.104)	ns	ns	ns		
4-Bromo phenyl phenyl ether	0.1	0.1	ND (<0.0452)	ns	ns	ns		
4-Chloro-3-methylphenol	0.5	6,100	ND (<0.0281)	ns	ns	ns		
4-Chloroaniline	0.5	0.5	ND (<0.0153)	ns	ns	ns		
4-Chlorophenyl phenyl ether	0.1	0.1	ND (<0.0393)	ns	ns	ns		
4-Methylphenol (m-cresol)	0.1	400	0.891	ns	ns	ns		
4-Nitrophenol	0.5	0.5	ND (<0.232)	ns	ns	ns		
Aniline	0.2	175	ND (<0.0239)	ns	ns	ns		
Azobenzene	0.1	9	ND (<0.0166)	ns	ns	ns		
Benzoic Acid	0.2	257	ND (<0.000559)	ns	ns	ns		
Benzyl alcohol	0.1	24,000	ND (<0.0226)	ns	ns	ns		
Butyl Benzylphthalate	0.1	351*	ND (<0.0200)	ns	ns	ns		
bis (2-Ethylhexyl) adipate	0.1	833	ND (<0.0227)	ns	ns	ns		
bis (2-Ethylhexyl) phthalate	0.1	4.9	1.14	ns	ns	ns		
Bis(2-chloroethoxy)methane	0.1	180	ND (<0.0292)	ns	ns	ns		
Bis(2-chloroethoxy)ether	0.2	0.2	ND (<0.0349)	ns	ns	ns		
Bis(2-chloroisopropyl)ether	0.1	3,200	ND (<0.0347)	ns	ns	ns		
Carbazole	0.5	0.5*	ND (<0.0341)	ns	ns	ns		
Dibenzofuran	0.1	160*	0.161 [J]	ns	ns	ns		
Diethylphthalate	0.1	160.2	ND (<0.0821)	ns	ns	ns		
Dimethylphthalate	0.1	80,000*	ND (<0.0187)	ns	ns	ns		
Di-n-butylphthalate	0.1	103	ND (<0.00731)	ns	ns	ns		
Di-n-octyl phthalate	0.1	1,600	ND (<0.0141)	ns	ns	ns		
Diphenylamine	0.5	2,000	ND (<0.0171)	ns	ns	ns		
Hexachlorobenzene	0.1	0.1	ND (<0.0418)	ns	ns	ns		
Hexachlorobutadiene	0.1	12.8	ND (<0.0300)	ns	ns	ns		
Hexachlorocyclopentadiene	0.1	480	ND (<0.0300)	ns	ns	ns		
Hexachloroethane	0.1	0.1	ND (<0.202)	ns	ns	ns		
Isophorone	0.1	3	ND (<0.0180)	ns	ns	ns		
Nitrobenzene	0.2	2.9	ND (<0.0770)	ns	ns	ns		
N-Nitroso-di-n-propylamine	0.1	0.1	ND (<0.0288)	ns	ns	ns		
Pentachlorophenol	0.2	0.2*	ND (<0.235)	ns	ns	ns		
Phenol	0.2	5,084.50	ND (<0.0240)	ns	ns	ns		

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 8'	Depth: 1'	Depth: 1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<21.2)	ns	ns	ND (<76.5)	ND (<20.3)	ND (<22.2)
Heavy Oil	50	16	2,000	338	ns	ns	1,040	419	ND (<55.6)
Diesel Range Organics	25.1	lab	2,000	70.5	ns	ns	960	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 8'	Depth: 1'	Depth: 1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling event.

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15,900 mg/kg

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 429 mg/kg

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of 8,180 mg/kg

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-3-2'	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP-2 (DUP of TC-MW-4-1')	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011
				Time: 14:50	Time: 15:10	Time: 7:50	Time: 7:50	Time: 7:55	Time: 8:00
				Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ND (<22.3)	ND (<25.1)	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ND (<55.8)	122	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	41.2	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-3-2'	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP-2 (DUP of TC-MW-4-1')	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011
				Time: 14:50	Time: 15:10	Time: 7:50	Time: 7:50	Time: 7:55	Time: 8:00
				Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-4-10'	Sample ID: TC-MW-5-1'	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011
				Time: 8:25	Time: 14:35	Time: 14:40	Time: 14:35	Time: 15:00	Time: 15:05
				Depth: 10'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<29.2)	ND (<19.2)	ns	ND (<19.9)	ns	ns
Heavy Oil	50	16	2,000	126	140	ns	215	ns	ns
Diesel Range Organics	25.1	lab	2,000	52.3	47.2	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-4-10'	Sample ID: TC-MW-5-1'	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011
				Time: 8:25	Time: 14:35	Time: 14:40	Time: 14:35	Time: 15:00	Time: 15:05
				Depth: 10'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary :

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'	Sample ID: TC-MW-8-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011
				Time: 10:00	Time: 10:05	Time: 10:10	Time: 12:00	Time: 12:07	Time: 12:10
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<21.8)	ns	ND (<23.2)	ND (<19.9)	ns	ns
Heavy Oil	50	16	2,000	1,170	ns	ND (<58) <sup>b</sup>	ND (<49.9)	ns	ns
Diesel Range Organics	25.1	lab	2,000	75.6	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'	Sample ID: TC-MW-8-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011
				Time: 10:00	Time: 10:05	Time: 10:10	Time: 12:00	Time: 12:07	Time: 12:10
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ND (<6.09)	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of



Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/28/2011	Date: 4/28/2011	Date: 4/25/2011	Date: 4/25/2011	Date: 4/28/2011	Date: 4/27/2011
				Time: 10:30	Time: 10:40	Time: 14:30	Time: 14:50	Time: 9:10	Time: 9:15
				Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments: H
Diesel (Fuel Oil)	20	9.6	2,000	ND (<20.4)	ND (<23.8)	ND (<21.5)	ns	ND (<18.2)	ND (<20.9) H
Heavy Oil	50	16	2,000	142	ND (<59.6)	ND (<53.6)	ns	489	90.2 H
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	68.2	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/28/2011	Date: 4/28/2011	Date: 4/25/2011	Date: 4/25/2011	Date: 4/28/2011	Date: 4/27/2011
				Time: 10:30	Time: 10:40	Time: 14:30	Time: 14:50	Time: 9:10	Time: 9:15
				Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: DUP-3 (DUP of TC-MW-12-1')	Sample ID: TC-MW-12-2'	Sample ID: TC-MW-13-1'	Sample ID: TC-MW-14-1'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/26/2011	Date: 4/29/2011
				Time: 9:20	Time: 7:45	Time: 7:45	Time: 7:50	Time: 9:50	Time: 8:05
				Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<21.1)	ND (<19.2)	ND (<20.5)	ns	ND (<20.5)	ND (<19.4)
Heavy Oil	50	16	2,000	ND (<52.8)	148	107	ns	ND (<51.1)	ND (<48.5)
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	62.9	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: Dup-3	Sample ID: TC-MW-12-2'	Sample ID: TC-MW-13-1'	Sample ID: TC-MW-14-1'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/26/2011	Date: 4/29/2011
				Time: 9:20	Time: 7:45	Time: 7:45	Time: 7:50	Time: 9:50	Time: 8:05
				Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'	Depth: 1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary :

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10	Time: 8:20	Time: 8:30
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<18.9)	ns	ND (<25.4)	ND (<19.4)	ns	ns
Heavy Oil	50	16	2,000	ND (<47.2)	ns	ND (<63.5)	183	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	52	31.3	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10	Time: 8:20	Time: 8:30
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	54.7	ns	ns

**Notes:**

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\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-MW-16-14'	Sample ID: TC-MW-17-1'	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2-2.5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012
				Time: 9:00	Time: 13:50	Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40
				Depth: 14'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 4'	Depth: 2.5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<22.1)	ND (<18.6)	ns	ns	1,530	ND (<21.2)
Heavy Oil	50	16	2,000	ND (<55.2)	51.0	ns	ns	ND (<75.3)	ND (<53)
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	46.1
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-MW-16-14'	Sample ID: TC-MW-17-1'	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2-2.5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 4/26/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012
				Time: 9:00	Time: 13:50	Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40
				Depth: 14'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 4'	Depth: 2.5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	10.4	20.6

**Notes:**

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Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: DUP of TC-MW-18-2-2.5'	Sample ID: TC-MW-19-2-2.5'	Sample ID: TC-SB-1-0.5'-1'	Sample ID: TC-SB-1-1'-2'	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'
				Date: 7/18/2012	Date: 7/18/2012	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:00	Time: 8:43	Time: 9:10	Time: 9:13	Time: 9:25	Time: 9:30
				Depth: 2.5'	Depth: 2.5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 7'-8'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<21.4)	ND (<22.2)	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ND (<53.5)	ND (<55.4)	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	33.8	60.2	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: DUP of TC-MW-18-2-2.5'	Sample ID: TC-MW-19-2-2.5'	Sample ID: TC-SB-1-0.5'-1'	Sample ID: TC-SB-1-1'-2'	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'
				Date: 7/18/2012	Date: 7/18/2012	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:00	Time: 8:43	Time: 9:10	Time: 9:13	Time: 9:25	Time: 9:30
				Depth: 2.5'	Depth: 2.5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 7'-8'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	18.2	19.4	ns	ns	ns	ns

**Notes:**

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J = Estimated value

ns = not sampled

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Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 13:55	Time: 14:00	Time: 14:05	Time: 14:10	Time: 13:10	Time: 13:15
				Depth: 0.5'-1'	Depth: 2'-3'	Depth: 8'-9'	Depth: 11'-12'	Depth: 1'-2'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 13:55	Time: 14:00	Time: 14:05	Time: 14:10	Time: 13:10	Time: 13:15
				Depth: 0.5'-1'	Depth: 2'-3'	Depth: 8'-9'	Depth: 11'-12'	Depth: 1'-2'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

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Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

**Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods**

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-3-3'-4'	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 13:17	Time: 13:25	Time: 12:40	Time: 12:45	Time: 12:50	Time: 12:55
				Depth: 3'-4'	Depth: 9'-10'	Depth: 1'-2'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ND (<2.75)	16.3	ND (<4.04)	ND (<6.61)
Heavy Oil	50	16	2,000	ns	ns	133	280	749	53.3
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-3-3'-4'	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 13:17	Time: 13:25	Time: 12:40	Time: 12:45	Time: 12:50	Time: 12:55
				Depth: 3'-4'	Depth: 9'-10'	Depth: 1'-2'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

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Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'	Sample ID: TC-SB-6-3'-4'	Sample ID: TC-SB-6-6'-7'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:45	Time: 14:50	Time: 14:55	Time: 8:30	Time: 8:35	Time: 8:40
				Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 2'-3'	Depth: 3'-4'	Depth: 6'-7'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ND (<3.74)	ND (<5.18)	ND (<10.4)
Heavy Oil	50	16	2,000	ns	ns	ns	562	250	424 <sup>c</sup>
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'	Sample ID: TC-SB-6-3'-4'	Sample ID: TC-SB-6-6'-7'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:45	Time: 14:50	Time: 14:55	Time: 8:30	Time: 8:35	Time: 8:40
				Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 2'-3'	Depth: 3'-4'	Depth: 6'-7'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

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b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of



Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'	Sample ID: TC-SB-7-9'-10'	Sample ID: TC-SB-8-3'-4'	Sample ID: TC-SB-8-6'-7'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/10	Date: 10/17/12	Date: 10/17/12
				Time: 8:45	Time: 9:30	Time: 9:35	Time: 9:40	Time: 10:35	Time: 10:40
				Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'
				Comments: H	Comments:	Comments:	Comments: H	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<4.7) H	ND (<7.53)	ND (<4.02)	ND (<4.51) H	ns	ND (<5.76)
Heavy Oil	50	16	2,000	ND (<10.3) H <sup>d</sup>	1,500	270	798 H	ns	135
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'	Sample ID: TC-SB-7-9'-10'	Sample ID: TC-SB-8-3'-4'	Sample ID: TC-SB-8-6'-7'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/10	Date: 10/17/12	Date: 10/17/12
				Time: 8:45	Time: 9:30	Time: 9:35	Time: 9:40	Time: 10:35	Time: 10:40
				Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

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b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'	Sample ID: TC-SB-9-4'-5'	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:45	Time: 11:35	Time: 11:40	Time: 11:45	Time: 11:05	Time: 11:08
				Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'
				Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<2.74) H	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	18.7 H	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'	Sample ID: TC-SB-9-4'-5'	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:45	Time: 11:35	Time: 11:40	Time: 11:45	Time: 11:05	Time: 11:08
				Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

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Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

**Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods**

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:10	Time: 11:14	Time: 10:45	Time: 10:47	Time: 10:50	Time: 10:55
				Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:10	Time: 11:14	Time: 10:45	Time: 10:47	Time: 10:50	Time: 10:55
				Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

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\* based on April 1, 2011 updated CLARC value

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MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary :

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 8:45	Time: 8:53	Time: 12:00	Time: 12:03	Time: 12:07	Time: 8:40
				Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/16/12	Date: 10/16/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 8:45	Time: 8:53	Time: 12:00	Time: 12:03	Time: 12:07	Time: 8:40
				Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

**Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods**

Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: DUP of TC-SB-14-4'-5'	Sample ID: TC-SB-14-9'-10'	Sample ID: TC-SB-15-0.5'-1'	Sample ID: TC-SB-15-1'-2'	Sample ID: TC-SB-15-2'-3'	Sample ID: TC-SB-15-6'-7'
				Date: 10/18/12	Date: 10/18/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 8:45	Time: 8:50	Time: 14:30	Time: 14:33	Time: 14:35	Time: 14:40
				Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 6'-7'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ND (<11.2)
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	294
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: DUP of TC-SB-14-4'-5'	Sample ID: TC-SB-14-9'-10'	Sample ID: TC-SB-15-0.5'-1'	Sample ID: TC-SB-15-1'-2'	Sample ID: TC-SB-15-2'-3'	Sample ID: TC-SB-15-6'-7'
				Date: 10/18/12	Date: 10/18/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 8:45	Time: 8:50	Time: 14:30	Time: 14:33	Time: 14:35	Time: 14:40
				Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 6'-7'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-15-14'-15'	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'	Sample ID: TC-SB-16-4'-5'	Sample ID: TC-SB-16-14'-15'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:50	Time: 12:10	Time: 12:15	Time: 12:20	Time: 12:25	Time: 12:40
				Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'
				Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ND (<3.69) H	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ND (<8.12)H	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-15-14'-15'	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'	Sample ID: TC-SB-16-4'-5'	Sample ID: TC-SB-16-14'-15'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:50	Time: 12:10	Time: 12:15	Time: 12:20	Time: 12:25	Time: 12:40
				Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'	Sample ID: TC-SB-17-4'-5'	Sample ID: TC-SB-17-14'-15'	Sample ID: TC-SB-18-1'-2'	Sample ID: TC-SB-18-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/18/12	Date: 10/18/12
				Time: 15:30	Time: 15:35	Time: 15:38	Time: 15:45	Time: 10:25	Time: 10:30
				Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'	Sample ID: TC-SB-17-4'-5'	Sample ID: TC-SB-17-14'-15'	Sample ID: TC-SB-18-1'-2'	Sample ID: TC-SB-18-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/18/12	Date: 10/18/12
				Time: 15:30	Time: 15:35	Time: 15:38	Time: 15:45	Time: 10:25	Time: 10:30
				Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-18-9'-10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'-10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 10:35	Time: 11:20	Time: 11:25	Time: 11:30	Time: 9:50	Time: 9:55
				Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	ns	ns	ns	ns	ns
Heavy Oil	50	16	2,000	ns	ns	ns	ns	ns	ns
Diesel Range Organics	25.1	lab	2,000	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-18-9'-10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'-10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 10:35	Time: 11:20	Time: 11:25	Time: 11:30	Time: 9:50	Time: 9:55
				Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15;

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of



**Table 21. Laboratory Data for Soil Hydrocarbons by NWTPH Methods**

Diesel range petroleum hydrocarbons by NWTPH-Dx				Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/18/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:00	Time: 10:00	Time: 10:05
				Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'
				Comments:	Comments:	Comments:
Diesel (Fuel Oil)	20	9.6	2,000	ns	2.73 (J)	16.8 (J)
Heavy Oil	50	16	2,000	ns	137	37.1 (J)
Diesel Range Organics	25.1	lab	2,000	ns	ns	2,100
Gasoline range petroleum hydrocarbons by NWTPH-Gx				Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'
Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Date: 10/18/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:00	Time: 10:00	Time: 10:05
				Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'
				Comments:	Comments:	Comments:
Gasoline	5.0	0.405	100 <sup>a</sup>	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary :

Analyte detected above MRL and Preliminary Screening Level

a = No benzene was detected in any sample as part of this sampling

b = Cresote detected in sample TC-MW-7-3' at a concentration of 15,

c = Creosote detected in sample TC-SB-6-6'-7' at a concentration of 4

d = Creosote detected in sample TC-SB-6-9'-10' at a concentration of

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'	Sample ID: TC-MW-3-2'
				Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45	Time: 14:50
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 8'	Depth: 1'	Depth: 1'	Depth: 2'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns
Total PCBs	0.1	0.088	1	ND (<0.0955)	ns	ns	ND (<0.285)	ND (<0.104)	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP-2 (DUP of TC-MW-4-1')	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'	Sample ID: TC-MW-4-10'	Sample ID: TC-MW-5-1'
				Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011
				Time: 15:10	Time: 7:50	Time: 9:50	Time: 7:55	Time: 8:00	Time: 8:25	Time: 14:35
				Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 10'	Depth: 1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1254	0.1	0.088	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)
Total PCBs	0.1	0.088	1	ns	ND (<0.125)	ND (<0.121)	ns	ns	ND (<0.147)	ND (<0.0984)

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'	Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'
				Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011
				Time: 14:40	Time: 14:55	Time: 15:00	Time: 15:05	Time: 10:00	Time: 10:05	Time: 10:10
				Depth: 2'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	0.219	ns	ns	ND (<0.129)	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	0.219	ns	ns	0.193	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns
Total PCBs	0.1	0.088	1	ns	ND (<0.0977)	ns	ns	ND (<0.129)	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'	Sample ID: TC-MW-8-3'	Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'
				Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/25/2011	Date: 4/25/2011
				Time: 12:00	Time: 12:07	Time: 12:10	Time: 10:30	Time: 10:40	Time: 14:30	Time: 14:50
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ND (<0.099)	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ND (<0.099)	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'	Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: DUP-3 (DUP of TC- MW-12-1')	Sample ID: TC-MW-12-2'	Sample ID: TC-MW-13-1'
				Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/26/2011
				Time: 9:10	Time: 9:15	Time: 9:20	Time: 7:45	Time: 7:45	Time: 7:50	Time: 9:50
				Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'
Comments:				Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns
Total PCBs	0.1	0.088	1	ND (<0.0995)	ND (<0.117) H	ns	ND (<0.0946)	ND (<0.0974)	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-14-1'	Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'
				Date: 4/29/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/25/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 8:05	Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10	Time: 8:20	Time: 8:30
				Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ND (<0.108)	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ND (<0.108)	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-16-14'	Sample ID: TC-MW-17-1'	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2-2.5'	Sample ID: DUP of TC-MW-18-2-2.5'
				Date: 4/26/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012	Date: 7/18/2012
				Time: 9:00	Time: 13:50	Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40	Time: 11:00
				Depth: 14'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 4'	Depth: 2.5'	Depth: 2.5'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.0994)	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ND (<0.0994)	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim



**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-19-2-2.5'	Sample ID: TC-SB-1-0.5'-1'	Sample ID: TC-SB-1-1'-2'	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'	Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'
				Date: 7/18/2012	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 8:43	Time: 9:10	Time: 9:13	Time: 9:25	Time: 9:30	Time: 13:55	Time: 14:00
				Depth: 2.5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 7'-8'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 2'-3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ns** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'	Sample ID: TC-SB-3-3'-4'	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	
				Time: 14:05	Time: 14:10	Time: 13:10	Time: 13:15	Time: 13:17	Time: 13:25	Time: 12:40	
				Depth: 8'-9'	Depth: 11'-12'	Depth: 1'-2'	Depth: 2'-3'	Depth: 3'-4'	Depth: 9'-10'	Depth: 1'-2'	
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00851)
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00851)
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00851)
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00851)
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00539)
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns	0.0570
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns	ND (<0.00817)
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns	0.0570

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'	Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12
				Time: 12:45	Time: 12:50	Time: 12:55	Time: 14:45	Time: 14:50	Time: 14:55	Time: 8:30
				Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 2'-3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.0125)	ns	ns	ns	ns	ND (<0.0121)
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.0125)	ns	ns	ns	ns	ND (<0.0121)
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.0125)	ns	ns	ns	ns	ND (<0.0121)
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.0125)	ns	ns	ns	ns	ND (<0.0121)
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.00792)	ns	ns	ns	ns	ND (<0.00762)
Aroclor 1254	0.1	0.088	Total PCBs	ns	0.558	ns	ns	ns	ns	0.143 (J)
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.012)	ns	ns	ns	ns	ND (<0.0116)
Total PCBs	0.1	0.088	1	ns	0.558	ns	ns	ns	ns	0.143 (J)

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-6-3'-4'	Sample ID: TC-SB-6-6'-7'	Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'	Sample ID: TC-SB-7-9'-10'	Sample ID: TC-SB-8-3'-4'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/10	Date: 10/17/12
				Time: 8:35	Time: 8:40	Time: 8:45	Time: 9:30	Time: 9:35	Time: 9:40	Time: 10:35
				Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.0170)	ns	ND (<0.0115)	ND (<0.0127)	ns	ND (<0.00915)
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.0170)	ns	ND (<0.0115)	ND (<0.0127)	ns	ND (<0.00915)
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.0170)	ns	ND (<0.0115)	ND (<0.0127)	ns	ND (<0.00915)
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.0171)	ns	ND (<0.0115)	ND (<0.0127)	ns	ND (<0.00915)
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.0108)	ns	ND (<0.00729)	ND (<0.00801)	ns	ND (<0.00579)
Aroclor 1254	0.1	0.088	Total PCBs	ns	ND (<0.0144)	ns	ND (<0.00978)	ND (<0.0107)	ns	0.113
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.0163)	ns	ND (<0.0111)	ND (<0.0122)	ns	ND (<0.00878)
Total PCBs	0.1	0.088	1	ns	ND (<0.0170)	ns	ND (<0.0115)	ND (<0.0127)	ns	0.113

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-8-6'-7'
				Date: 10/17/12
				Time: 10:40
				Depth: 6'-7'
				Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ND (<0.0204)
Aroclor 1221	0.1	0.043	Total PCBs	ND (<0.0204)
Aroclor 1232	0.1	0.008	Total PCBs	ND (<0.0204)
Aroclor 1242	0.1	0.067	Total PCBs	ND (<0.0204)
Aroclor 1248	0.1	0.044	Total PCBs	ND (<0.0129)
Aroclor 1254	0.1	0.088	Total PCBs	ND (<0.0173)
Aroclor 1260	0.1	0.051	Total PCBs	ND (<0.0196)
Total PCBs	0.1	0.088	1	ND (<0.0204)

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'	Sample ID: TC-SB-9-4'-5'	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'	Sample ID: TC-SB-10-2'-3'
				Date: 10/17/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:45	Time: 11:35	Time: 11:40	Time: 11:45	Time: 11:05	Time: 11:08	Time: 11:10
				Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'	Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:14	Time: 10:45	Time: 10:47	Time: 10:50	Time: 10:55	Time: 8:45	Time: 8:53
				Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'	Sample ID: DUP of TC-SB-14-4'-5'	Sample ID: TC-SB-14-9'-10'	Sample ID: TC-SB-15-0.5'-1'
				Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/17/12
				Time: 12:00	Time: 12:03	Time: 12:07	Time: 8:40	Time: 8:45	Time: 8:50	Time: 14:30
				Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim



**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-15-1'-2'	Sample ID: TC-SB-15-2'-3'	Sample ID: TC-SB-15-6'-7'	Sample ID: TC-SB-15-14'-15'	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:33	Time: 14:35	Time: 14:40	Time: 14:50	Time: 12:10	Time: 12:15	Time: 12:20
				Depth: 1'-2'	Depth: 2'-3'	Depth: 6'-7'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.00858)	ND (<0.0178)	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.00858)	ND (<0.0178)	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.00858)	ND (<0.0178)	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.00858)	ND (<0.0178)	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.00543)	ND (<0.0113)	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ND (<0.00729)	ND (<0.0151)	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.00824)	ND (<0.0171)	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ND (<0.00858)	ND (<0.0178)	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-16-4'-5'	Sample ID: TC-SB-16-14'-15'	Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'	Sample ID: TC-SB-17-4'-5'	Sample ID: TC-SB-17-14'-15'	Sample ID: TC-SB-18-1'-2'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/18/12
				Time: 12:25	Time: 12:40	Time: 15:30	Time: 15:35	Time: 15:38	Time: 15:45	Time: 10:25
				Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-18-4'-5'	Sample ID: TC-SB-18-9'-10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'-10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'
				Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 10:30	Time: 10:35	Time: 11:20	Time: 11:25	Time: 11:30	Time: 9:50	Time: 9:55
				Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	1	ns	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 22. Laboratory Data for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'
				Date: 10/18/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:00	Time: 10:00	Time: 10:05
				Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'
				Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	Total PCBs	ns	ND (<0.00907)	ns
Aroclor 1221	0.1	0.043	Total PCBs	ns	ND (<0.00907)	ns
Aroclor 1232	0.1	0.008	Total PCBs	ns	ND (<0.00907)	ns
Aroclor 1242	0.1	0.067	Total PCBs	ns	ND (<0.00907)	ns
Aroclor 1248	0.1	0.044	Total PCBs	ns	ND (<0.00574)	ns
Aroclor 1254	0.1	0.088	Total PCBs	ns	ND (<0.0077)	ns
Aroclor 1260	0.1	0.051	Total PCBs	ns	ND (<0.00871)	ns
Total PCBs	0.1	0.088	1	ns	ND (<0.00907)	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelim

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'
				Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
				Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	0.529	0.315	0.17	0.997	0.258	0.339
Arsenic	0.1	93.7	20	14.2	7.83	3.08	3.55	12.9	6.87
Beryllium	0.2	21.4	160	0.689	0.396	ND (<0.17)	3.38	0.381	0.543
Cadmium	0.2	21.7	1.2	0.596	0.374	0.198	0.843	0.266	0.453
Chromium	0.1	57.0	120,000	24.8	29.8	20.3	27.5	26.6	32.8
Copper	0.2	36.0	36	47.4	70.2	15.9	68.4	33.1	36.9
Lead	0.2	19.4	250	28.2	32.7	15.9	44.5	20.5	163
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.279)</b>	ND (<0.0253)	<b>ND (&lt;0.266)</b>	0.763	<b>ND (&lt;0.246)</b>	<b>ND (&lt;0.284)</b>
Nickel	0.1	37.9	47.8	35.1	51.3	25.1	88.6	29	39.2
Selenium	0.5	370.5	7.4	ND (<0.396)	ND (<0.549)	ND (<0.424)	ND (<1.07)	ND (<0.394)	ND (<0.436)
Silver	0.1	3.6	400	0.0809	ND (<0.11)	ND (<0.0848)	ND (<0.215)	ND (<0.0788)	0.169
Thallium	0.2	2.9	0.7	0.309	0.241	ND (<0.17)	ND (<0.43)	0.221	1.49
Zinc	0.4	114.2	100.8	158	93.9	39.4	113	69.9	121

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-3-2'	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP of TC-MW-4-1' (DUP-2)	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'
				Date: 4/26/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011
				Time: 14:50	Time: 15:10	Time: 7:50	Time: 7:50	Time: 7:55	Time: 8:00
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ND (<0.219)	ns	0.599	ND (<0.185)	0.998	11.1
Arsenic	0.1	93.7	20	2.85	ns	12.2	7.35	11.2	48.1
Beryllium	0.2	21.4	160	ND (<0.219)	ns	0.459	0.633	0.3	ND (<0.281)
Cadmium	0.2	21.7	1.2	ND (<0.219)	ns	0.278	1.67	0.251	1.17
Chromium	0.1	57.0	120,000	11.7	ns	24.7	31.1	33.2	33.2
Copper	0.2	36.0	36	15.4	ns	27.7	32.8	37.4	629
Lead	0.2	19.4	250	24	ns	56.8	34	106	678
Mercury	0.2	5.2	0.2	ND (<0.0271)	ns	<b>ND (&lt;0.325)</b>	<b>ND (&lt;0.317)</b>	ND (<0.0288)	<b>ND (&lt;0.398)</b>
Nickel	0.1	37.9	47.8	14.6	ns	25.1	34.6	29	37.1
Selenium	0.5	370.5	7.4	ND (<0.548)	ns	ND (<0.452)	ND (<0.462)	ND (<0.621)	ND (<0.703)
Silver	0.1	3.6	400	ND (<0.11)	ns	0.12	0.136	0.167	0.175
Thallium	0.2	2.9	0.7	ND (<0.219)	ns	0.506	0.33	0.637	3.12
Zinc	0.4	114.2	100.8	37.5	ns	74.6	70.5	78.7	574

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-4-10'	Sample ID: TC-MW-5-1'	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'
				Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011
				Time: 8:25	Time: 14:35	Time: 14:40	Time: 14:35	Time: 15:00	Time: 15:05
				Depth:	Depth: 1'	Depth:	Depth: 1'	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	1.03	0.538	1.07	0.698	0.479	0.409
Arsenic	0.1	93.7	20	14.4	7.02	5.15	7.72	6.16	5.43
Beryllium	0.2	21.4	160	1.03	9.48	1.71	9.15	0.663	0.384
Cadmium	0.2	21.7	1.2	0.604	0.823	0.359	0.54	0.403	0.284
Chromium	0.1	57.0	120,000	45.4	26	16.2	22.9	51	28.9
Copper	0.2	36.0	36	51.2	86.7	23.6	74.8	83.8	37.3
Lead	0.2	19.4	250	127	34.8	14.7	62.4	51.6	49.2
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.374)</b>	<b>ND (&lt;0.263)</b>	<b>ND (&lt;0.614)</b>	0.377	0.256	<b>ND (&lt;0.417)</b>
Nickel	0.1	37.9	47.8	51	65.3	22.8	27.5	37.9	30.2
Selenium	0.5	370.5	7.4	ND (<0.793)	ND (<0.521)	ND (<0.897)	ND (<0.56)	ND (<0.512)	ND (<0.66)
Silver	0.1	3.6	400	0.293	0.131	ND (<0.179)	ND (<0.112)	ND (<0.102)	ND (<0.132)
Thallium	0.2	2.9	0.7	1.08	0.499	ND (<0.359)	0.866	0.414	0.276
Zinc	0.4	114.2	100.8	141	122	20.7	56.3	76.3	46.8

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'	Sample ID: TC-MW-8-3'
				Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011
				Time: 10:00	Time: 10:05	Time: 10:10	Time: 12:00	Time: 12:07	Time: 12:10
				Depth:	Depth:	Depth:	Depth: 1'	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	3.71	ns	9.96	0.341	1.61	1.45
Arsenic	0.1	93.7	20	34	ns	54.3	9.52	16.9	14
Beryllium	0.2	21.4	160	0.495	ns	0.348	10.6	0.422	0.182
Cadmium	0.2	21.7	1.2	0.809	ns	1.48	0.479	0.439	0.261
Chromium	0.1	57.0	120,000	61.1	ns	49.7	45	42.1	22.5
Copper	0.2	36.0	36	256	ns	945	95.1	60.9	38
Lead	0.2	19.4	250	213	ns	555	25.5	121	33.2
Mercury	0.2	5.2	0.2	1.33	ns	4.85	<b>ND (&lt;0.272)</b>	<b>ND (&lt;0.244)</b>	<b>ND (&lt;0.257)</b>
Nickel	0.1	37.9	47.8	65.9	ns	45	129	47.9	29
Selenium	0.5	370.5	7.4	ND (<0.534)	ns	ND (<0.460)	5.97	ND (<0.513)	ND (<0.455)
Silver	0.1	3.6	400	ND (<0.107)	ns	0.103	ND (<0.106)	0.111	ND (<0.091)
Thallium	0.2	2.9	0.7	1.3	ns	2.41	0.414	0.819	ND (<0.182)
Zinc	0.4	114.2	100.8	244	ns	542	84.4	103	67.9

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p



**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-9R-4'-5'	Sample ID: TC-MW-9R-9'-10'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'
				Date: 4/28/2011	Date: 4/28/2011	Date: 03/11/2014	Date: 03/11/2014	Date: 4/25/2011	Date: 4/25/2011
				Time: 10:30	Time: 10:40	Time: 11:10	Time: 11:20	Time: 14:30	Time: 14:50
				Depth: 1'	Depth: 1'	Depth: 4'-5'	Depth: 9'-10'	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	0.233	ND (<0.264)	ns	ns	10.4	0.676
Arsenic	0.1	93.7	20	7.58	8.81	155	69.6	87.4	6.97
Beryllium	0.2	21.4	160	9.38	12.1	ns	ns	0.399	1.1
Cadmium	0.2	21.7	1.2	0.442	0.367	ns	ns	0.782	0.644
Chromium	0.1	57.0	120,000	24.5	30.5	ns	ns	36.5	43.5
Copper	0.2	36.0	36	28.1	36.3	277	199	205	180
Lead	0.2	19.4	250	8.04	16	ns	ns	83.2	46.9
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.265)</b>	<b>ND (&lt;0.327)</b>	ns	ns	<b>ND (&lt;0.27)</b>	ND (<0.0283)
Nickel	0.1	37.9	47.8	36	41.2	ns	ns	32.4	59.7
Selenium	0.5	370.5	7.4	1.88	7.05	ns	ns	ND (<0.414)	ND (<0.572)
Silver	0.1	3.6	400	ND (<0.107)	ND (<0.132)	ns	ns	0.19	ND (<0.114)
Thallium	0.2	2.9	0.7	ND (<0.214)	0.298	ns	ns	0.849	0.316
Zinc	0.4	114.2	100.8	53.4	58.2	ns	ns	629	168

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'	Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: DUP of TC-MW- 12-1' (DUP-3)	Sample ID: TC-MW-12-2'
				Date: 4/28/2011	Date: 4/27/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011
				Time: 9:10	Time: 9:15	Time: 9:20	Time: 7:45	Time: 7:45	Time: 7:50
				Depth: 1'	Depth:	Depth:	Depth: 1'	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ND (<0.192)	0.389	0.382	0.364	0.26	ND (<0.228)
Arsenic	0.1	93.7	20	12	8.61	7.93	8.8	8.69	6.61
Beryllium	0.2	21.4	160	7.48	0.441	0.207	9.87	10.3	0.271
Cadmium	0.2	21.7	1.2	0.347	0.531	0.372	0.583	0.805	ND (<0.228)
Chromium	0.1	57.0	120,000	16.8	42.3	27.8	31.7	30.9	32.4
Copper	0.2	36.0	36	39.6	49.7	30.6	57.4	93.2	20.6
Lead	0.2	19.4	250	7.63	41.1	25.6	43.2	43.1	6.68
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.238)</b>	<b>ND (&lt;0.267)</b>	<b>ND (&lt;0.253)</b>	<b>ND (&lt;0.248)</b>	<b>ND (&lt;0.28)</b>	<b>ND (&lt;0.309)</b>
Nickel	0.1	37.9	47.8	21	46.1	33.1	44.3	78.7	30.4
Selenium	0.5	370.5	7.4	2.13	ND (<0.477)	ND (<0.476)	3.22	4.55	ND (<0.569)
Silver	0.1	3.6	400	ND (<0.0962)	0.278	0.197	0.138	0.143	ND (<0.114)
Thallium	0.2	2.9	0.7	ND (<0.192)	0.389	0.197	0.678	0.69	ND (<0.228)
Zinc	0.4	114.2	100.8	51.9	75.9	54.6	87.6	120	40.8

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-13-1'	Sample ID: TC-MW-14-1'	Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'
				Date: 4/26/2011	Date: 4/29/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011
				Time: 9:50	Time: 8:05	Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10
				Depth:	Depth: 1'	Depth: 1'	Depth:	Depth: 3'	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ND (<0.156)	ND (<0.201)	ND (<0.197)	16.7	0.367	0.961
Arsenic	0.1	93.7	20	4.70	5.64	5.94	10.3	7.35	14.1
Beryllium	0.2	21.4	160	0.282	9.06	1.02	0.59	1.77	0.432
Cadmium	0.2	21.7	1.2	ND (<0.156)	0.336	ND (<0.197)	1.53	1.02	0.6
Chromium	0.1	57.0	120,000	21.8	29.2	200	36.7	34	26.5
Copper	0.2	36.0	36	16.9	32.5	36.3	694	79	83.9
Lead	0.2	19.4	250	4.22	7.32	4.12	389	99.2	89.9
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.255)</b>	ND (<0.0247)	<b>ND (&lt;0.241)</b>	<b>ND (&lt;0.246)</b>	<b>ND (&lt;0.352)</b>	0.311
Nickel	0.1	37.9	47.8	26.1	39.9	29.2	89.5	56.5	36
Selenium	0.5	370.5	7.4	ND (<0.391)	4.23	ND (<0.491)	0.481	ND (<0.634)	ND (<0.408)
Silver	0.1	3.6	400	ND (<0.0782)	ND (<0.100)	ND (<0.0983)	0.215	0.199	0.157
Thallium	0.2	2.9	0.7	ND (<0.156)	ND (<0.201)	ND (<0.197)	2.74	0.802	0.905
Zinc	0.4	114.2	100.8	36	54.4	47.3	263	172	145

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'	Sample ID: TC-MW-16-14'	Sample ID: TC-MW-17-1'
				Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/28/2011
				Time: 8:20	Time: 8:30	Time: 9:00	Time: 13:50
				Depth:	Depth:	Depth:	Depth: 1'
				Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	0.906	0.722	ND (<0.267)	0.329
Arsenic	0.1	93.7	20	12.8	6.95	11.7	8.34
Beryllium	0.2	21.4	160	0.351	0.225	0.444	8.47
Cadmium	0.2	21.7	1.2	0.35	0.36	ND (<0.267)	0.497
Chromium	0.1	57.0	120,000	35.4	17.3	36	28.4
Copper	0.2	36.0	36	100	32.5	19.9	39.1
Lead	0.2	19.4	250	370	65.2	8.46	20.8
Mercury	0.2	5.2	0.2	ND (<0.0247)	<b>ND (&lt;0.301)</b>	<b>ND (&lt;0.314)</b>	ND (<0.0275)
Nickel	0.1	37.9	47.8	49.3	28.1	55.8	36.6
Selenium	0.5	370.5	7.4	ND (<0.521)	ND (<0.483)	ND (<0.667)	4.69
Silver	0.1	3.6	400	0.921	0.121	ND (<0.133)	ND (<0.106)
Thallium	0.2	2.9	0.7	2.26	0.322	ND (<0.267)	0.344
Zinc	0.4	114.2	100.8	1300	82.5	47	66.5

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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H = Holding time for sample preparation or analysis exceeded

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ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2-2.5'	Sample ID: DUP of TC-MW-18-2-2.5'	Sample ID: TC-MW-19-2-2.5'
				Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012
				Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40	Time: 11:00	Time: 8:43
				Depth:	Depth:	Depth: 4'	Depth: 2.5'	Depth: 2.5'	Depth: 2.5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	0.623	0.721	0.758	0.319	ND (<0.172)	ND (<0.175)
Arsenic	0.1	93.7	20	15.4	5.56	13	9.35	4.55	4.65
Beryllium	0.2	21.4	160	0.493	0.269	10.5	0.207	0.19	0.178
Cadmium	0.2	21.7	1.2	0.307	0.982	0.557	ND (<0.17)	ND (<0.172)	0.297
Chromium	0.1	57.0	120,000	40.6	21.2	20.3	29.3	30.5	26
Copper	0.2	36.0	36	46.2	48.3	53.4	17.1	15.8	27.8
Lead	0.2	19.4	250	35	257	23.6	9.13	4.65	25.9
Mercury	0.2	5.2	0.2	<b>ND (&lt;0.285)</b>	<b>ND (&lt;0.339)</b>	ND (<0.043)	<b>ND (&lt;0.244)</b>	<b>ND (&lt;0.241)</b>	<b>ND (&lt;0.244)</b>
Nickel	0.1	37.9	47.8	44.4	27.5	36.8	30.1	32.6	40.9
Selenium	0.5	370.5	7.4	ND (<0.504)	ND (<0.577)	ND (<0.759)	ND (<0.424)	ND (<0.429)	ND (<0.438)
Silver	0.1	3.6	400	ND (<0.101)	0.115	ND (<0.152)	ND (<0.0848)	ND (<0.0858)	ND (<0.0876)
Thallium	0.2	2.9	0.7	0.309	1.1	0.352	ND (<0.17)	ND (<0.172)	ND (<0.175)
Zinc	0.4	114.2	100.8	81	229	75.2	54.8	41.9	93.9

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

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H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-20-4'-5'	Sample ID: TC-MW-20-9'-10'	Sample ID: TC-MW-21-4'-5'	Sample ID: TC-MW-21-9'-10'	Sample ID: TC-SB-1-0.5'-1'	Sample ID: TC-SB-1-1'-2'
				Date: 03/11/2014	Date: 03/11/2014	Date: 03/11/2014	Date: 03/11/2014	Date: 10/16/12	Date: 10/16/12
				Time: 14:30	Time: 14:35	Time: 9:00	Time: 9:15	Time: 9:10	Time: 9:13
				Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	13.2	15.0	15.2	11.0	31.0	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	47.6	82.5	31.3	60.7	212	ns
Lead	0.2	19.4	250	ns	ns	ns	ns	35.1	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'	Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 9:25	Time: 9:30	Time: 13:55	Time: 14:00	Time: 14:05	Time: 14:10
				Depth: 7'-8'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 2'-3'	Depth: 8'-9'	Depth: 11'-12'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	43.0	10.0	ns	ns	11.4	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	44.2	49.3	ns	ns	55.5	61.7
Lead	0.2	19.4	250	42.6	ns	ns	ns	35.4	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

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ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'	Sample ID: TC-SB-3-3'-4'	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 13:10	Time: 13:15	Time: 13:17	Time: 13:25	Time: 12:40	Time: 12:45
				Depth: 1'-2'	Depth: 2'-3'	Depth: 3'-4'	Depth: 9'-10'	Depth: 1'-2'	Depth: 3'-4'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	9.22	10.5	ns	ns	16.8	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	34.3	81.9	140	16.9	115	ns
Lead	0.2	19.4	250	183	153	ns	ns	47.3	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p



**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'	Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/17/12
				Time: 12:50	Time: 12:55	Time: 14:45	Time: 14:50	Time: 14:55	Time: 8:30
				Depth: 6'-7'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	9.29	ns	8.65	ns	ns	7.91
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	211	11.8	23.1	ns	ns	40.3
Lead	0.2	19.4	250	45.0	ns	10.7	ns	ns	410
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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**Bold** = Non-detection value of analyte in exceedance of CLARC

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-6-3'-4'	Sample ID: TC-SB-6-6'-7'	Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'	Sample ID: TC-SB-7-9'-10'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/10
				Time: 8:35	Time: 8:40	Time: 8:45	Time: 9:30	Time: 9:35	Time: 9:40
				Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	ns	9.96	ns	24.3	17.5	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	ns	50.7	133	98.9	58.2	51.0
Lead	0.2	19.4	250	ns	34.7	ns	81.0	27.9	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-8-3'-4'	Sample ID: TC-SB-8-6'-7'	Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'	Sample ID: TC-SB-9-4'-5'
				Date: 10/17/12	Date:10/17/12	Date: 10/17/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 10:35	Time: 10:40	Time: 10:45	Time: 11:35	Time: 11:40	Time: 11:45
				Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	6.65	15.1	ns	28.6	26.7	7.86
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	26.9	104	40.1	35.6	36.5	98.0
Lead	0.2	19.4	250	37.1	265	145	34.9	38.9	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'	Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
				Time: 11:05	Time: 11:08	Time: 11:10	Time: 11:14	Time: 10:45	Time: 10:47
				Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	24.1	ns	9.98	ns	88.1	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	52.9	ns	119	186	61.9	ns
Lead	0.2	19.4	250	41.5	ns	23.2	ns	46.1	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceed

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-11-2'-3'	Sample ID: TC-SB-11-4'-5'	Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'
				Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/18/12	Date: 10/18/12
				Time: 10:50	Time: 10:55	Time: 8:45	Time: 8:53	Time: 12:00	Time: 12:03
				Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	6.20	ns	8.22	3.08	5.65	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	13.7	ns	48.4	248	58.4	ns
Lead	0.2	19.4	250	11.2	ns	36.7	61.1	100	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

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H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'	Sample ID: DUP of TC-SB-14-4'-5'	Sample ID: TC-SB-14-9'-10'	Sample ID: TC-SB-15-0.5'-1'	Sample ID: TC-SB-15-1'-2'
				Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/17/12	Date: 10/17/12
				Time: 12:07	Time: 8:40	Time: 8:45	Time: 8:50	Time: 14:30	Time: 14:33
				Depth: 4'-5'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	ns	21.0	14.3	7.74	11.4	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	91.7	91.4	98.4	61.1	32.8	ns
Lead	0.2	19.4	250	ns	32.0	21.1	41.0	22.5	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL  mg/kg	Soil MDL  mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-15-2'-3'	Sample ID: TC-SB-15-6'-7'	Sample ID: TC-SB-15-14'-15'	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 14:35	Time: 14:40	Time: 14:50	Time: 12:10	Time: 12:15	Time: 12:20
				Depth: 2'-3'	Depth: 6'-7'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	12.3	4.35	ns	6.34	8.36	8.60
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	48.2	31.5	ns	24.3	141	135
Lead	0.2	19.4	250	25.3	30.2	ns	8.20	56.5	69.6
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-16-4'-5'	Sample ID: TC-SB-16-14'-15'	Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'	Sample ID: TC-SB-17-4'-5'	Sample ID: TC-SB-17-14'-15'
				Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
				Time: 12:25	Time: 12:40	Time: 15:30	Time: 15:35	Time: 15:38	Time: 15:45
				Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	ns	ns	7.71	ns	ns	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	51.8	22.5	22.6	ns	ns	ns
Lead	0.2	19.4	250	ns	ns	109	ns	ns	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

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ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

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**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-18-1'-2'	Sample ID: TC-SB-18-4'-5'	Sample ID: TC-SB-18-9'-10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'	Sample ID: TC-SB-19-9'-10'
				Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
				Time: 10:25	Time: 10:30	Time: 10:35	Time: 11:20	Time: 11:25	Time: 11:30
				Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	6.61	ns	ns	7.06	3.19	ns
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	32.0	ns	ns	26.1	13.6	ns
Lead	0.2	19.4	250	27.3	ns	ns	140	7.17	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'	Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'	Sample ID: TC-SB-22-4'-5'
				Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/16/12	Date: 10/16/12	Date: 03/12/2014
				Time: 9:50	Time: 9:55	Time: 10:00	Time: 10:00	Time: 10:05	Time: 10:00
				Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	6.71	ns	ns	ns	ns	27.7
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	42.7	ns	16.0	ns	ns	140
Lead	0.2	19.4	250	31.2	ns	ns	ns	ns	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-22-9'-10'	Sample ID: TC-SB-23-4'-5'	Sample ID: DUP of TC-SB-23-4'-5'	Sample ID: TC-SB-23-9'-10'	Sample ID: TC-SB-24-2'	Sample ID: TC-SB-24-4'-5'
				Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014
				Time: 10:15	Time: 9:30	Time:	Time: 9:35	Time: 11:30	Time: 11:30
				Depth: 9'-10'	Depth: 4'-5'	Depth:	Depth: 9'-10'	Depth: 9'-10'	Depth: 4'-5'
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns	ns	ns
Arsenic	0.1	93.7	20	13.8	18.2	19.0	13.7	11	7.03
Beryllium	0.2	21.4	160	ns	ns	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns	ns	ns
Copper	0.2	36.0	36	45.5	166	388	35.5	22.7	32.5
Lead	0.2	19.4	250	ns	ns	ns	ns	ns	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of CLARC value

**Table 23. Laboratory Data for Soil  
Metals in soil by EPA Method  
6020/200.8**

Analyte	Soil MRL mg/kg	Soil MDL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-25-2'	Sample ID: TC-SB-25-4'-5'	Sample ID: TC-SB-26-4'-5'	Sample ID: TC-SB-26-9'-10'
				Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014
				Time: 13:00	Time: 13:00	Time: 10:50	Time: 11:00
				Depth: 2'	Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'
				Comments:	Comments:	Comments:	Comments:
Antimony	0.2	4.1	32	ns	ns	ns	ns
Arsenic	0.1	93.7	20	7.00	7.03	2.50	9.42
Beryllium	0.2	21.4	160	ns	ns	ns	ns
Cadmium	0.2	21.7	1.2	ns	ns	ns	ns
Chromium	0.1	57.0	120,000	ns	ns	ns	ns
Copper	0.2	36.0	36	47.0	123	14.8	43.0
Lead	0.2	19.4	250	ns	ns	ns	ns
Mercury	0.2	5.2	0.2	ns	ns	ns	ns
Nickel	0.1	37.9	47.8	ns	ns	ns	ns
Selenium	0.5	370.5	7.4	ns	ns	ns	ns
Silver	0.1	3.6	400	ns	ns	ns	ns
Thallium	0.2	2.9	0.7	ns	ns	ns	ns
Zinc	0.4	114.2	100.8	ns	ns	ns	ns

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

NE = not established

MRL = Laboratory Method Reporting Limit

MDL = Laboratory Method Detection Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of p

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**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-1-1'	Sample ID: TC-MW-1-2'	Sample ID: TC-MW-1-3'	Sample ID: TC-MW-1-8'	Sample ID: TC-MW-2-1'	Sample ID: TC-MW-3-1'	Sample ID: TC-MW-3-2'
			Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
			Time: 11:40	Time: 11:45	Time: 11:50	Time: 12:25	Time: 13:20	Time: 14:45	Time: 14:50
			Depth: 1'	Depth: 2'	Depth: 3'	Depth: 8'	Depth: 1'	Depth: 1'	Depth: 2'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.875	0.148
Acenaphthylene	0.1	0.1	<b>ND (&lt;0.105)</b>	ns	ns	<b>ND (&lt;0.386)</b>	<b>ND (&lt;0.895)</b>	<b>ND (&lt;0.107)</b>	<b>ND (&lt;0.102)</b>
Anthracene	0.1	12,285.40	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.230	ND (<0.102)
Benzo(a)anthracene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.472	<b>ND (&lt;0.716)</b>	0.285	0.842
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.595	<b>ND (&lt;0.716)</b>	0.181	0.391
benzo(b)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.816	<b>ND (&lt;0.716)</b>	0.342	0.670
Benzo(g,h,i)perylene	0.08	0.08	<b>ND (&lt;0.0843)</b>	ns	ns	0.473	<b>ND (&lt;0.716)</b>	0.126	0.187
benzo(k)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.695	<b>ND (&lt;0.716)</b>	0.337	0.615
Chrysene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.493	<b>ND (&lt;0.716)</b>	0.294	0.340
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	ND (<0.309)	<b>ND (&lt;0.716)</b>	ND (<0.0856)	0.0897
Fluoranthene	0.1	88.9	ND (<0.105)	ns	ns	0.519	ND (<0.895)	1.470	1.090
Fluorene	0.1	546.7	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.886	0.135
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.0843)</b>	ns	ns	0.442	<b>ND (&lt;0.716)</b>	0.0992	0.294
Naphthalene	0.1	138	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	0.232	ND (<0.102)
Phenanthrene	0.1	0.1	<b>ND (&lt;0.105)</b>	ns	ns	<b>ND (&lt;0.386)</b>	<b>ND (&lt;0.895)</b>	3.220	<b>ND (&lt;0.102)</b>
Pyrene	0.1	2,400	ND (<0.105)	ns	ns	ND (<0.386)	ND (<0.895)	1.070	1.240
TEQ <sup>a</sup>	--	--	0.0636	--	--	0.8330	0.5406	0.2945	0.6455

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exceeded

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance of preliminary screening level.**

<sup>a</sup> = TEQ values calculated using Ecology's published guidance "Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors." Available at <https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf>. For ND values, one-half of the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-3-3'	Sample ID: TC-MW-4-1'	Sample ID: DUP-2 (DUP of TC-MW-4-1')	Sample ID: TC-MW-4-2'	Sample ID: TC-MW-4-3'	Sample ID: TC-MW-4-10'	Sample ID: TC-MW-5-1'
			Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/27/2011
			Time: 15:10	Time: 7:50	Time: 7:50	Time: 7:55	Time: 8:00	Time: 8:25	Time: 14:35
			Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 10'	Depth: 1'
			Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ND (<0.115) H	ND (<0.123)	ND (<0.122)	ND (<0.118)	ND (<0.15)	ND (<0.148)	ND (<0.102)
Acenaphthylene	0.1	0.1	<b>ND (&lt;0.115) H</b>	<b>ND (&lt;0.123)</b>	<b>ND (&lt;0.122)</b>	<b>ND (&lt;0.118)</b>	<b>ND (&lt;0.15)</b>	<b>ND (&lt;0.148)</b>	<b>ND (&lt;0.102)</b>
Anthracene	0.1	12,285.40	0.115 H	ND (<0.123)	ND (<0.122)	ND (<0.118)	ND (<0.15)	ND (<0.148)	ND (<0.102)
Benzo(a)anthracene	0.08	TEQ	0.882 H	0.134	0.268	0.297	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
benzo(a)pyrene	0.08	TEQ	0.203 H	0.104	0.0224	0.119	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
benzo(b)fluoranthene	0.08	TEQ	0.158 H	0.181	0.378	0.191	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
Benzo(g,h,i)perylene	0.08	0.08	<b>ND (&lt;0.0921) H</b>	<b>ND (&lt;0.0983)</b>	0.139	<b>ND (&lt;0.0945)</b>	<b>ND (&lt;0.12)</b>	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
benzo(k)fluoranthene	0.08	TEQ	0.145 H	0.179	0.373	0.175	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
Chrysene	0.08	TEQ	0.3 H	0.134	0.265	ND (<0.0945)	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
Dibenzo(a,h)anthracene	0.08	TEQ	0.119 H	ND (<0.0983)	ND (<0.098)	ND (<0.0945)	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
Fluoranthene	0.1	88.9	0.588 H	0.243	0.511	0.243	ND (<0.15)	ND (<0.148)	ND (<0.102)
Fluorene	0.1	546.7	ND (<0.115) H	ND (<0.123)	ND (<0.122)	ND (<0.118)	ND (<0.15)	ND (<0.148)	ND (<0.102)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.0945 H	ND (<0.0983)	0.131	ND (<0.0945)	ND (<0.12)	<b>ND (&lt;0.119)</b>	<b>ND (&lt;0.0814)</b>
Naphthalene	0.1	138	ND (<0.115) H	ND (<0.123)	ND (<0.122)	ND (<0.118)	ND (<0.15)	ND (<0.148)	ND (<0.102)
Phenanthrene	0.1	0.1	0.268 H	0.170	<b>ND (&lt;0.122)</b>	<b>ND (&lt;0.118)</b>	<b>ND (&lt;0.15)</b>	<b>ND (&lt;0.148)</b>	<b>ND (&lt;0.102)</b>
Pyrene	0.1	2,400	0.697 H	0.254	0.568	0.329	ND (<0.15)	ND (<0.148)	ND (<0.102)
TEQ <sup>a</sup>	--	--	0.3459	0.1646	0.1450	0.1952	0.0906	0.0898	0.0615

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-5-2'	Sample ID: TC-MW-6-1'	Sample ID: TC-MW-6-2'	Sample ID: TC-MW-6-3'	Sample ID: TC-MW-7-1'	Sample ID: TC-MW-7-2'	Sample ID: TC-MW-7-3'
			Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011
			Time: 14:40	Time: 14:55	Time: 15:00	Time: 15:05	Time: 10:00	Time: 10:05	Time: 10:10
			Depth: 2'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ns	ND (<0.104)	ns	ns	ND (<1.03)	ND (<0.107)	14.100
Acenaphthylene	0.1	0.1	ns	<b>ND (&lt;0.104)</b>	ns	ns	<b>ND (&lt;1.03)</b>	<b>ND (&lt;0.107)</b>	17.300
Anthracene	0.1	12,285.40	ns	ND (<0.104)	ns	ns	ND (<1.03)	0.617	157.000
Benzo(a)anthracene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	1.460	290.000
benzo(a)pyrene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	0.631	169.000
benzo(b)fluoranthene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	0.869	1.420	337.000
Benzo(g,h,i)perylene	0.08	0.08	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	0.400	61.900
benzo(k)fluoranthene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	0.858	1.300	333.000
Chrysene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	0.603	256.000
Dibenzo(a,h)anthracene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	0.135	19.500
Fluoranthene	0.1	88.9	ns	ND (<0.104)	ns	ns	ND (<1.03)	1.110	816.000
Fluorene	0.1	546.7	ns	ND (<0.104)	ns	ns	ND (<1.03)	ND (<0.107)	275.000
Indeno(1,2,3-cd)pyrene	0.08	TEQ	ns	<b>ND (&lt;0.0833)</b>	ns	ns	<b>ND (&lt;0.827)</b>	0.646	55.500
Naphthalene	0.1	138	ns	ND (<0.104)	ns	ns	ND (<1.03)	ND (<0.107)	157.000
Phenanthrene	0.1	0.1	ns	<b>ND (&lt;0.104)</b>	ns	ns	<b>ND (&lt;1.03)</b>	<b>ND (&lt;0.107)</b>	739.000
Pyrene	0.1	2,400	ns	ND (<0.104)	ns	ns	ND (<1.03)	1.590	792.000
TEQ <sup>a</sup>	--	--	--	0.0629	--	--	0.7144	1.1331	275.06

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-8-1'	Sample ID: TC-MW-8-2'	Sample ID: TC-MW-8-3'	Sample ID: TC-MW-9-1'	Sample ID: TC-MW-9-3'	Sample ID: TC-MW-10-1'	Sample ID: TC-MW-10-2'
			Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/25/2011	Date: 4/25/2011
			Time: 12:00	Time: 12:07	Time: 12:10	Time: 10:30	Time: 10:40	Time: 14:30	Time: 14:50
			Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 1'	Depth: 2'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	0.104	ND (<0.0909)
Acenaphthylene	0.1	0.1	<b>ND (&lt;0.107)</b>	ns	ns	<b>ND (&lt;0.102)</b>	<b>ND (&lt;0.122)</b>	ND (<0.0897)	ND (<0.0909)
Anthracene	0.1	12,285.40	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	ND (<0.0897)	0.113
Benzo(a)anthracene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.0997	0.0994
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.104	ND (<0.0727)
benzo(b)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.144	ND (<0.0727)
Benzo(g,h,i)perylene	0.08	0.08	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.0862	ND (<0.0727)
benzo(k)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.0741	ND (<0.0727)
Chrysene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	0.100	ND (<0.0727)
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	ND (<0.0717)	0.125
Fluoranthene	0.1	88.9	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	0.181	ND (<0.0909)
Fluorene	0.1	546.7	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	0.0995	ND (<0.0909)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.0853)</b>	ns	ns	<b>ND (&lt;0.0815)</b>	<b>ND (&lt;0.0972)</b>	ND (<0.0717)	0.0962
Naphthalene	0.1	138	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	0.167	ND (<0.0909)
Phenanthrene	0.1	0.1	<b>ND (&lt;0.107)</b>	ns	ns	<b>ND (&lt;0.102)</b>	<b>ND (&lt;0.122)</b>	0.248	ND (<0.0909)
Pyrene	0.1	2,400	ND (<0.107)	ns	ns	ND (<0.102)	ND (<0.122)	0.176	ND (<0.0909)
TEQ <sup>a</sup>	--	--	0.0644	--	--	0.0615	0.0734	0.1440	0.0760

**Notes:**

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\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published guidance "Mixture Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.



**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-11-1'	Sample ID: TC-MW-11-2'	Sample ID: TC-MW-11-3'	Sample ID: TC-MW-12-1'	Sample ID: DUP-3 (DUP of TC-MW-12-1')	Sample ID: TC-MW-12-2'	Sample ID: TC-MW-13-1'
			Date: 4/28/2011	Date: 4/27/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/26/2011
			Time: 9:10	Time: 9:15	Time: 9:20	Time: 7:45	Time: 7:45	Time: 7:50	Time: 9:50
			Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 1'	Depth: 2'	Depth: 1'
			Comments:	Comments: H	Comments:	Comments:	Comments:	Comments: H	Comments:
Acenaphthene	0.1	65.5	ND (<0.0872)	ND (<0.0984) H	ND (<0.116)	ND (<0.0997)	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
Acenaphthylene	0.1	0.1	ND (<0.0872)	ND (<0.0984) H	<b>ND (&lt;0.116)</b>	ND (<0.0997)	ND (<0.0963)	<b>ND (&lt;0.101) H</b>	ND (<0.0875)
Anthracene	0.1	12,285.40	ND (<0.0872)	ND (<0.0984) H	ND (<0.116)	ND (<0.0997)	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
Benzo(a)anthracene	0.08	TEQ	ND (<0.0698)	0.154 H	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
benzo(a)pyrene	0.08	TEQ	0.0765	<b>ND (&lt;0.0787) H</b>	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
benzo(b)fluoranthene	0.08	TEQ	ND (<0.0698)	<b>ND (&lt;0.0787) H</b>	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
Benzo(g,h,i)perylene	0.08	0.08	ND (<0.0698)	ND (<0.0787) H	<b>ND (&lt;0.0931)</b>	ND (<0.0797)	ND (<0.077)	<b>ND (&lt;0.0811) H</b>	ND (<0.0700)
benzo(k)fluoranthene	0.08	TEQ	ND (<0.0698)	<b>ND (&lt;0.0787) H</b>	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
Chrysene	0.08	TEQ	0.108	0.107 H	<b>ND (&lt;0.0931)</b>	0.0949	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.0698)	<b>ND (&lt;0.0787) H</b>	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
Fluoranthene	0.1	88.9	0.0878	0.501 H	ND (<0.116)	0.105	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
Fluorene	0.1	546.7	ND (<0.0872)	ND (<0.0984) H	ND (<0.116)	ND (<0.0997)	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	ND (<0.0698)	<b>ND (&lt;0.0787) H</b>	<b>ND (&lt;0.0931)</b>	<b>ND (&lt;0.0797)</b>	<b>ND (&lt;0.077)</b>	<b>ND (&lt;0.0811) H</b>	<b>ND (&lt;0.0700)</b>
Naphthalene	0.1	138	ND (<0.0872)	ND (<0.0984) H	ND (<0.116)	ND (<0.0997)	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
Phenanthrene	0.1	0.1	0.121	0.269 H	<b>ND (&lt;0.116)</b>	0.103	ND (<0.0963)	<b>ND (&lt;0.101) H</b>	ND (<0.0875)
Pyrene	0.1	2,400	0.0995	0.498 H	ND (<0.116)	0.109	ND (<0.0963)	ND (<0.101) H	ND (<0.0875)
TEQ <sup>a</sup>	--	--	0.0950	0.0716	0.0703	0.0602	0.0581	0.0612	0.0529

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-14-1'	Sample ID: TC-MW-15-1'	Sample ID: TC-MW-15-2'	Sample ID: TC-MW-15-3'	Sample ID: TC-MW-16-1'	Sample ID: TC-MW-16-2'	Sample ID: TC-MW-16-3'
			Date: 4/29/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/27/2011	Date: 4/26/2011	Date: 4/26/2011	Date: 4/26/2011
			Time: 8:05	Time: 11:35	Time: 11:40	Time: 11:45	Time: 8:10	Time: 8:20	Time: 8:30
			Depth: 1'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 1'	Depth: 2'	Depth: 3'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments: H
Acenaphthene	0.1	65.5	ND (<0.100)	ND (<0.0953)	ns	ND (<0.127)	ND (<1.100)	ND (<0.0994)	ND (<0.111) H
Acenaphthylene	0.1	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0953)	ns	<b>ND (&lt;0.127)</b>	<b>ND (&lt;1.100)</b>	ND (<0.0994)	<b>ND (&lt;0.111) H</b>
Anthracene	0.1	12,285.40	ND (<0.100)	ND (<0.0953)	ns	ND (<0.127)	ND (<1.100)	ND (<0.0994)	0.571 H
Benzo(a)anthracene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	0.127	0.989	0.487	1.29 H
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	<b>ND (&lt;0.102)</b>	1.510	0.155	0.268 H
benzo(b)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	0.114	2.360	0.400	0.772 H
Benzo(g,h,i)perylene	0.08	0.08	<b>ND (&lt;0.0801)</b>	ND (<0.0762)	ns	<b>ND (&lt;0.102)</b>	1.600	0.121	<b>ND (&lt;0.0889) H</b>
benzo(k)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	<b>ND (&lt;0.102)</b>	1.130	0.368	0.739 H
Chrysene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	0.141	1.690	0.172	0.606 H
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	<b>ND (&lt;0.102)</b>	ND (<0.880)	ND (<0.0795)	ND (<0.0889) H
Fluoranthene	0.1	88.9	ND (<0.100)	ND (<0.0953)	ns	0.213	2.140	0.464	0.839 H
Fluorene	0.1	546.7	ND (<0.100)	ND (<0.0953)	ns	ND (<0.127)	ND (<1.100)	ND (<0.0994)	ND (<0.111) H
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.0801)</b>	<b>ND (&lt;0.0762)</b>	ns	<b>ND (&lt;0.102)</b>	1.220	0.191	ND (<0.0889) H
Naphthalene	0.1	138	ND (<0.100)	ND (<0.0953)	ns	ND (<0.127)	2.210	ND (<0.0994)	ND (<0.111) H
Phenanthrene	0.1	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0953)	ns	0.138	1.110	ND (<0.0994)	0.411 H
Pyrene	0.1	2,400	ND (<0.100)	ND (<0.0953)	ns	0.221	2.540	0.493	0.953 H
TEQ <sup>a</sup>	--	--	0.0605	0.0575	--	0.0918	2.141	0.3053	0.5631

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-16-14'	Sample ID: TC-MW-17-1'	Sample ID: TC-MW-17-2'	Sample ID: TC-MW-17-3'	Sample ID: TC-MW-17-4'	Sample ID: TC-MW-18-2-2.5'	Sample ID: DUP of TC-MW-18-2-2.5'
			Date: 4/26/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 4/28/2011	Date: 7/18/2012	Date: 7/18/2012
			Time: 9:00	Time: 13:50	Time: 13:45	Time: 13:55	Time: 14:00	Time: 10:40	Time: 11:00
			Depth: 14'	Depth: 1'	Depth: 2'	Depth: 3'	Depth: 4'	Depth: 2.5'	Depth: 2.5'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ND (<0.133)	ND (<0.102)	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
Acenaphthylene	0.1	0.1	<b>ND (&lt;0.133)</b>	<b>ND (&lt;0.102)</b>	<b>ND (&lt;0.107)</b>	ns	<b>ND (&lt;0.173)</b>	ND (<0.0427)	ND (<0.0459)
Anthracene	0.1	12,285.40	ND (<0.133)	ND (<0.102)	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
Benzo(a)anthracene	0.08	TEQ	<b>ND (&lt;0.107)</b>	0.351	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.107)</b>	0.330	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
benzo(b)fluoranthene	0.08	TEQ	<b>ND (&lt;0.107)</b>	ND (<0.0814)	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
Benzo(g,h,i)perylene	0.08	0.08	<b>ND (&lt;0.107)</b>	0.407	0.151	ns	<b>ND (&lt;0.138)</b>	ND (<0.0427)	ND (<0.0459)
benzo(k)fluoranthene	0.08	TEQ	<b>ND (&lt;0.107)</b>	1.260	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
Chrysene	0.08	TEQ	<b>ND (&lt;0.107)</b>	1.430	0.105	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.107)</b>	ND (<0.0814)	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
Fluoranthene	0.1	88.9	ND (<0.133)	0.109	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
Fluorene	0.1	546.7	ND (<0.133)	ND (<0.102)	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.107)</b>	0.090	<b>ND (&lt;0.0855)</b>	ns	<b>ND (&lt;0.138)</b>	<b>ND (&lt;0.0427)</b>	<b>ND (&lt;0.0459)</b>
Naphthalene	0.1	138	ND (<0.133)	ND (<0.102)	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
Phenanthrene	0.1	0.1	<b>ND (&lt;0.133)</b>	<b>ND (&lt;0.102)</b>	<b>ND (&lt;0.107)</b>	ns	<b>ND (&lt;0.173)</b>	0.0872	0.0537
Pyrene	0.1	2,400	ND (<0.133)	ND (<0.125)	ND (<0.107)	ns	ND (<0.173)	ND (<0.0427)	ND (<0.0459)
TEQ <sup>a</sup>	--	--	0.0808	0.5225	0.0652	--	0.1042	0.0323	0.0347

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-MW-19-2-2.5'	Sample ID: TC-MW-20-4'-5'	Sample ID: TC-MW-20-9'-10'	Sample ID: TC-SB-1-0.5'-1'	Sample ID: TC-SB-1-1'-2'	Sample ID: TC-SB-1-7'-8'	Sample ID: TC-SB-1-9'-10'
			Date: 7/18/2012	Date: 03/11/2014	Date: 03/11/2014	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 8:43	Time: 14:30	Time: 14:35	Time: 9:10	Time: 9:13	Time: 9:25	Time: 9:30
			Depth: 2.5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 7'-8'	Depth: 9'-10'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments: H
Acenaphthene	0.1	65.5	ND (<0.0481)	ND (<0.000398)	1.950	ND (<0.0221)	ns	0.0688 (J)	ns
Acenaphthylene	0.1	0.1	ND (<0.0481)	ND (<0.000247)	0.0442 (J)	0.0541	ns	0.0407 (J)	ns
Anthracene	0.1	12,285.40	ND (<0.0481)	0.0178 (J)	0.375	0.116	ns	0.0234 (J)	ns
Benzo(a)anthracene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	0.0543 (J)	0.294	0.349	ns	0.0169 (J)	0.286 H
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	0.0643	0.131 (J)	0.398	ns	0.0135 (J)	0.297 H
benzo(b)fluoranthene	0.08	TEQ	0.067	0.0842	0.231	0.518	ns	0.021 (J)	0.389 H
Benzo(g,h,i)perylene	0.08	0.08	ND (<0.0481)	0.0715	ND (<0.00238)	0.219	ns	ND (<0.0112)	ns
benzo(k)fluoranthene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	0.0416 (J)	0.0868 (J)	0.177	ns	ND (<0.00893)	0.148 (J) H
Chrysene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	0.114	0.267	0.413	ns	0.0182 (J)	0.369 (J) H
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	ND (<0.00100)	ND (<0.00334)	ND (<0.0451)	ns	ND (<0.0217)	ND(<0.0321) H
Fluoranthene	0.1	88.9	0.116	0.146	1.760	0.718	ns	0.0719 (J)	ns
Fluorene	0.1	546.7	ND (<0.0481)	0.0265 (J)	0.915	0.0535	ns	0.237	ns
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.0481)</b>	0.0354 (J)	0.0478 (J)	0.188	ns	ND (<0.0127)	0.165 (J) H
Naphthalene	0.1	138	0.139	0.0608	20.500	0.092	ns	0.122	ns
Phenanthrene	0.1	0.1	0.109	0.108	0.931	0.387	ns	0.716	ns
Pyrene	0.1	2,400	0.108	0.135	1.140	0.711	ns	0.0969	ns
TEQ <sup>a</sup>	--	--	0.0406	0.08704	0.1998	0.5276	--	0.0199	0.4027

**Notes:**

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\* based on April 1, 2011 updated CLARC value

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ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-2-0.5'-1'	Sample ID: TC-SB-2-2'-3'	Sample ID: TC-SB-2-8'-9'	Sample ID: TC-SB-2-11'-12'	Sample ID: TC-SB-3-1'-2'	Sample ID: TC-SB-3-2'-3'	Sample ID: TC-SB-3-3'-4'
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 13:55	Time: 14:00	Time: 14:05	Time: 14:10	Time: 13:10	Time: 13:15	Time: 13:17
			Depth: 0.5'-1'	Depth: 2'-3'	Depth: 8'-9'	Depth: 11'-12'	Depth: 1'-2'	Depth: 2'-3'	Depth: 3'-4'
			Comments:	Comments:	Comments:	Comments: H	Comments:	Comments:	Comments: H
Acenaphthene	0.1	65.5	0.00873 (J)	ns	0.413	ns	0.0593	0.0631	ns
Acenaphthylene	0.1	0.1	0.0168 (J)	ns	1.110	ns	0.418	0.0548	ns
Anthracene	0.1	12,285.40	0.0331 (J)	ns	0.928	ns	0.307	0.0514	ns
Benzo(a)anthracene	0.08	TEQ	0.0976	ns	4.170	0.0937 H	1.180	0.135	0.148 H
benzo(a)pyrene	0.08	TEQ	0.158	ns	4.300	0.122 H	1.530	0.179	0.0742 (J) H
benzo(b)fluoranthene	0.08	TEQ	0.206	ns	11.300	0.168 H	1.910	0.253	0.15 H
Benzo(g,h,i)perylene	0.08	0.08	0.151	ns	3.120	ns	0.766	0.110	ns
benzo(k)fluoranthene	0.08	TEQ	0.0935	ns	2.980	0.0454 (J) H	0.564	0.639	ND (<0.0452) (J) H
Chrysene	0.08	TEQ	0.125	ns	9.640	0.102 (J) H	1.610	0.160	0.213 (J) H
Dibenzo(a,h)anthracene	0.08	TEQ	0.0232 (J)	ns	0.647	ND(<0.0173) H	0.167	0.0232 (J)	ND (<0.0118) (J) H
Fluoranthene	0.1	88.9	0.186	ns	14.600	ns	3.680	0.409	ns
Fluorene	0.1	546.7	0.0126 (J)	ns	1.100	ns	0.263	0.0555	ns
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.103	ns	3.050	0.0771	0.732	0.0979	ND (<0.0369) (J) H
Naphthalene	0.1	138	0.045 (J)	ns	0.935	ns	0.230	0.125	ns
Phenanthrene	0.1	0.1	0.125	ns	12.400	ns	3.100	0.361	ns
Pyrene	0.1	2,400	0.184	ns	12.000	ns	3.910	0.409	ns
TEQ <sup>a</sup>	--	--	0.2116	--	6.611	0.1632	2.0014	0.2954	0.1155

**Notes:**

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\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "Guidance for Assessing Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-3-9'-10'	Sample ID: TC-SB-4-1'-2'	Sample ID: TC-SB-4-3'-4'	Sample ID: TC-SB-4-6'-7'	Sample ID: TC-SB-4-9'-10'	Sample ID: TC-SB-5-1'-2'	Sample ID: TC-SB-5-2'-3'
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 13:25	Time: 12:40	Time: 12:45	Time: 12:50	Time: 12:55	Time: 14:45	Time: 14:50
			Depth: 9'-10'	Depth: 1'-2'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'
			Comments: H	Comments:	Comments:	Comments:	Comments: H	Comments:	Comments:
Acenaphthene	0.1	65.5	ns	0.0197 (J)	ns	0.062 (J)	ns	ns	ns
Acenaphthylene	0.1	0.1	ns	0.0191 (J)	ns	ND (<0.000932)	ns	ns	ns
Anthracene	0.1	12,285.40	ns	0.0151 (J)	ns	0.0185 (J)	ns	ns	ns
Benzo(a)anthracene	0.08	TEQ	ND (<0.0455) H	0.0242 (J)	ns	0.0149 (J)	ND (<0.0146) H	ns	ns
benzo(a)pyrene	0.08	TEQ	<b>ND (&lt;0.0182) H</b>	0.0314 (J)	ns	0.0152 (J)	<b>ND (&lt;0.0293) H</b>	ns	ns
benzo(b)fluoranthene	0.08	TEQ	ND (<0.0154) H	0.0465 (J)	ns	0.0291 (J)	<b>ND (&lt;0.0249) H</b>	ns	ns
Benzo(g,h,i)perylene	0.08	0.08	ns	0.0238 (J)	ns	ND (<0.0102)	ns	ns	ns
benzo(k)fluoranthene	0.08	TEQ	ND (<0.0158) H	0.0162 (J)	ns	0.00867 (J)	<b>ND (&lt;0.0254) H</b>	ns	ns
Chrysene	0.08	TEQ	ND (<0.00596) H	0.0337 (J)	ns	0.0171 (J)	0.00961 (J) H	ns	ns
Dibenzo(a,h)anthracene	0.08	TEQ	<b>ND (&lt;0.0225) H</b>	ND (<0.00724)	ns	ND (<0.0116)	<b>ND (&lt;0.03643) H</b>	ns	ns
Fluoranthene	0.1	88.9	ns	0.105	ns	0.0671 (J)	ns	ns	ns
Fluorene	0.1	546.7	ns	0.0226 (J)	ns	0.043 (J)	ns	ns	ns
Indeno(1,2,3-cd)pyrene	0.08	TEQ	<b>ND (&lt;0.0225) H</b>	0.0213 (J)	ns	ND (<0.0116)	<b>ND (&lt;0.0363) H</b>	ns	ns
Naphthalene	0.1	138	ns	0.0744	ns	0.0438 (J)	ns	ns	ns
Phenanthrene	0.1	0.1	ns	0.126	ns	0.117	ns	ns	ns
Pyrene	0.1	2,400	ns	0.103	ns	0.0575 (J)	ns	ns	ns
TEQ <sup>a</sup>	--	--	0.01749	0.04292	--	0.0218	0.02162	--	--

**Notes:**

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\* based on April 1, 2011 updated CLARC value

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ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-5-4'-5'	Sample ID: TC-SB-6-2'-3'	Sample ID: TC-SB-6-3'-4'	Sample ID: TC-SB-6-6'-7'	Sample ID: TC-SB-6-9'-10'	Sample ID: TC-SB-7-3'-4'	Sample ID: TC-SB-7-6'-7'
			Date: 10/16/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
			Time: 14:55	Time: 8:30	Time: 8:35	Time: 8:40	Time: 8:45	Time: 9:30	Time: 9:35
			Depth: 4'-5'	Depth: 2'-3'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'
			Comments:	Comments:	Comments:	Comments:	Comments: H	Comments:	Comments:
Acenaphthene	0.1	65.5	ns	0.0104 (J)	ns	8.15	152 H	0.247	0.487
Acenaphthylene	0.1	0.1	ns	0.0264 (J)	ns	0.0828 (J)	2.24 H	0.0223 (J)	ND (<0.00106)
Anthracene	0.1	12,285.40	ns	0.0223 (J)	ns	1.87	89 H	0.0592 (J)	0.0511 (J)
Benzo(a)anthracene	0.08	TEQ	ns	0.0623 (J)	ns	1.16	24.6 H	0.113	0.0568 (J)
benzo(a)pyrene	0.08	TEQ	ns	0.1520	ns	0.380	6.6 H	0.141	0.0612 (J)
benzo(b)fluoranthene	0.08	TEQ	ns	0.193	ns	0.715	8.84 H	0.206	0.100
Benzo(g,h,i)perylene	0.08	0.08	ns	0.4110	ns	0.105 (J)	ns	0.128	0.0406 (J)
benzo(k)fluoranthene	0.08	TEQ	ns	0.0332 (J)	ns	0.18	3.73 (J) H	0.0517 (J)	0.0277 (J)
Chrysene	0.08	TEQ	ns	0.0950	ns	0.99	21.4 (J) H	0.145	0.0671 (J)
Dibenzo(a,h)anthracene	0.08	TEQ	ns	0.0539 (J)	ns	0.0454 (J)	0.521 (J) H	ND (<0.0136)	0.0143 (J)
Fluoranthene	0.1	88.9	ns	0.271	ns	7.82	168 (J) H	0.352	0.277
Fluorene	0.1	546.7	ns	0.0201 (J)	ns	7.42	152 (J) H	0.129	0.299
Indeno(1,2,3-cd)pyrene	0.08	TEQ	ns	0.135	ns	0.105 (J)	1.35 (J) H	0.102	0.0471 (J)
Naphthalene	0.1	138	ns	0.158	ns	24.6	492 (J) H	0.158	0.0904
Phenanthrene	0.1	0.1	ns	0.263	ns	16.40	383 (J) H	0.397	0.108
Pyrene	0.1	2,400	ns	0.218	ns	4.74	102 (J) H	0.334	0.222
TEQ <sup>a</sup>	--	--	--	0.2007	--	0.6104	10.7181	0.1904	0.0865

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

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**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-7-9'-10'	Sample ID: TC-SB-8-3'-4'	Sample ID: TC-SB-8-6'-7'	Sample ID: TC-SB-8-9'-10'	Sample ID: TC-SB-9-2'-3'	Sample ID: DUP of TC-SB-9-2'-3'	Sample ID: TC-SB-9-4'-5'
			Date: 10/17/10	Date: 10/17/12	Date:10/17/12	Date: 10/17/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 9:40	Time: 10:35	Time: 10:40	Time: 10:45	Time: 11:35	Time: 11:40	Time: 11:45
			Depth: 9'-10'	Depth: 3'-4'	Depth: 6'-7'	Depth: 9'-10'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'
			Comments: H	Comments:	Comments:	Comments: H	Comments:	Comments:	Comments: H
Acenaphthene	0.1	65.5	ns	0.0126 (J)	0.053 (J)	ND (<0.0013) H	2.110	2.730	0.251 H
Acenaphthylene	0.1	0.1	ns	ND (<0.000738)	0.0778 (J)	0.0429 (J) H	0.0381 (J)	0.0474 (J)	ND (<0.00111) H
Anthracene	0.1	12,285.40	ns	ND (<0.00274)	0.0558 (J)	0.03 (J)H	1.790	1.850	0.0266 (J) H
Benzo(a)anthracene	0.08	TEQ	0.0782 (J) H	0.0149 (J)	0.249	0.0887 H	1.180	1.400	0.707 (J) H
benzo(a)pyrene	0.08	TEQ	0.0842 (J) H	0.0176 (J)	0.379	0.111 H	0.401	0.491	0.0803 (J) H
benzo(b)fluoranthene	0.08	TEQ	0.105 H	0.0315 (J)	0.457	0.151 H	0.897	1.060	0.186 H
Benzo(g,h,i)perylene	0.08	0.08	ns	0.0213 (J)	0.296	ns	0.0971	0.110	0.0854 (J) H
benzo(k)fluoranthene	0.08	TEQ	0.0511 (J) H	0.0102 (J)	0.122 (J)	0.0489 (J) H	0.223	0.260	0.0462 (J) H
Chrysene	0.08	TEQ	0.0937 (J) H	0.0143 (J)	0.339	0.137 (J) H	0.954	1.090	0.124 (J) H
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.0138) H	ND (<0.00917)	0.0715	0.0165 (J) H	0.0385 (J)	0.0435 (J)	ND (<0.0138) H
Fluoranthene	0.1	88.9	ns	0.0376 (J)	0.67 (J)	0.308 (J) H	5.460	6.870	0.194 (J) H
Fluorene	0.1	546.7	ns	0.00738 (J)	0.0424 (J)	0.017 (J) H	3.460	4.160	0.0898 (J) H
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.0444 (J) H	0.018 (J)	0.261	0.0781 (J) H	0.102	0.116	0.0732 (J) H
Naphthalene	0.1	138	ns	0.0229 (J)	0.216	0.296 (J) H	0.130	0.230	0.169 (J) H
Phenanthrene	0.1	0.1	ns	0.0351 (J)	0.480	0.245 (J) H	11.600	14.100	0.144 (J) H
Pyrene	0.1	2,400	ns	0.0297 (J)	0.670	0.297 (J) H	5.100	4.330	0.195 (J) H
TEQ <sup>a</sup>	--	--	0.1147	0.0257	0.4984	0.1507	0.6546	0.7980	0.1835

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.



**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-10-0.5'-1'	Sample ID: TC-SB-10-1'-2'	Sample ID: TC-SB-10-2'-3'	Sample ID: TC-SB-10-4'-5'	Sample ID: TC-SB-11-0.5'-1'	Sample ID: TC-SB-11-1'-2'	Sample ID: TC-SB-11-2'-3'
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/16/12
			Time: 11:05	Time: 11:08	Time: 11:10	Time: 11:14	Time: 10:45	Time: 10:47	Time: 10:50
			Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'
			Comments:	Comments:	Comments:	Comments: H	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	0.0218 (J)	ns	0.0109 (J)	ns	0.278	ns	0.0282 (J)
Acenaphthylene	0.1	0.1	0.0178 (J)	ns	0.0165 (J)	ns	0.0338 (J)	ns	0.0104 (J)
Anthracene	0.1	12,285.40	0.0409 (J)	ns	0.00979 (J)	ns	0.122	ns	0.0274 (J)
Benzo(a)anthracene	0.08	TEQ	0.0733	ns	0.015 (J)	0.123 H	0.0967	ns	0.0793
benzo(a)pyrene	0.08	TEQ	0.0686	ns	0.0345 (J)	0.127 H	0.0716	ns	0.0695 (J)
benzo(b)fluoranthene	0.08	TEQ	0.130	ns	0.0247 (J)	0.195 H	0.121	ns	0.120
Benzo(g,h,i)perylene	0.08	0.08	0.0422 (J)	ns	0.034 (J)	ns	0.0417 (J)	ns	0.0548 (J)
benzo(k)fluoranthene	0.08	TEQ	0.0305 (J)	ns	ND (<0.00539)	0.0402 (J) H	0.0355 (J)	ns	0.0371
Chrysene	0.08	TEQ	0.153	ns	0.0442 (J)	0.174 (J) H	0.104	ns	0.135
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.00721)	ns	ND (<0.00769)	0.0271 (J) H	0.00803 (J)	ns	0.0153 (J)
Fluoranthene	0.1	88.9	0.178	ns	0.0306 (J)	ns	0.545	ns	0.234
Fluorene	0.1	546.7	0.0252 (J)	ns	0.0151 (J)	ns	0.189	ns	0.0305 (J)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.0341 (J)	ns	0.0102 (J)	0.0794 (J) H	0.0322 (J)	ns	0.0278 (J)
Naphthalene	0.1	138	0.122	ns	0.0937	ns	0.0569	ns	0.0735 (J)
Phenanthrene	0.1	0.1	0.131	ns	0.0572	ns	0.397	ns	0.227
Pyrene	0.1	2,400	0.149	ns	0.0735	ns	0.437	ns	0.240
TEQ <sup>a</sup>	--	--	0.0973	--	0.0406	0.1749	0.1020	--	0.0988

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "Guidance for Assessing Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-11-4'-5'	Sample ID: TC-SB-12-4'-5'	Sample ID: TC-SB-12-9'-10'	Sample ID: TC-SB-13-1'-2'	Sample ID: TC-SB-13-2'-3'	Sample ID: TC-SB-13-4'-5'	Sample ID: TC-SB-14-4'-5'
			Date: 10/16/12	Date: 10/16/12	Date: 10/16/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
			Time: 10:55	Time: 8:45	Time: 8:53	Time: 12:00	Time: 12:03	Time: 12:07	Time: 8:40
			Depth: 4'-5'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 2'-3'	Depth: 4'-5'	Depth: 4'-5'
			Comments: H	Comments:	Comments:	Comments:	Comments:	Comments: H	Comments:
Acenaphthene	0.1	65.5	ns	ns	ns	0.0145 (J)	ns	ns	ns
Acenaphthylene	0.1	0.1	ns	ns	ns	0.139	ns	ns	ns
Anthracene	0.1	12,285.40	ns	ns	ns	0.0878	ns	ns	ns
Benzo(a)anthracene	0.08	TEQ	0.818 H	ns	ns	0.684	ns	0.382 H	ns
benzo(a)pyrene	0.08	TEQ	1.06 H	ns	ns	0.913	ns	0.43 H	ns
benzo(b)fluoranthene	0.08	TEQ	1.37 H	ns	ns	1.580	ns	0.576 H	ns
Benzo(g,h,i)perylene	0.08	0.08	ns	ns	ns	0.832	ns	ns	ns
benzo(k)fluoranthene	0.08	TEQ	0.344 (J) H	ns	ns	0.336	ns	0.199 (J) H	ns
Chrysene	0.08	TEQ	1.08 (J) H	ns	ns	0.962	ns	0.407 (J) H	ns
Dibenzo(a,h)anthracene	0.08	TEQ	0.158 (J) H	ns	ns	0.307	ns	0.0755 (J) H	ns
Fluoranthene	0.1	88.9	ns	ns	ns	1.060	ns	ns	ns
Fluorene	0.1	546.7	ns	ns	ns	0.0368 (J)	ns	ns	ns
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.632 (J) H	ns	ns	0.805	ns	0.295 (J) H	ns
Naphthalene	0.1	138	ns	ns	ns	0.121	ns	ns	ns
Phenanthrene	0.1	0.1	ns	ns	ns	0.500	ns	ns	ns
Pyrene	0.1	2,400	ns	ns	ns	1.060	ns	ns	ns
TEQ <sup>a</sup>	--	--	1.4030	--	--	1.2938	--	0.5868	--

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "Guidance for Assessing Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: DUP of TC-SB-14-4'-5'	Sample ID: TC-SB-14-9'-10'	Sample ID: TC-SB-15-0.5'-1'	Sample ID: TC-SB-15-1'-2'	Sample ID: TC-SB-15-2'-3'	Sample ID: TC-SB-15-6'-7'	Sample ID: TC-SB-15-14'-15'
			Date: 10/18/12	Date: 10/18/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
			Time: 8:45	Time: 8:50	Time: 14:30	Time: 14:33	Time: 14:35	Time: 14:40	Time: 14:50
			Depth: 4'-5'	Depth: 9'-10'	Depth: 0.5'-1'	Depth: 1'-2'	Depth: 2'-3'	Depth: 6'-7'	Depth: 14'-15'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments: H
Acenaphthene	0.1	65.5	ns	ns	0.0291 (J)	ns	0.0275 (J)	1.720	ND (<0.00151) H
Acenaphthylene	0.1	0.1	ns	ns	0.0219 (J)	ns	0.0227 (J)	0.0294 (J)	0.171 (J) H
Anthracene	0.1	12,285.40	ns	ns	0.0231 (J)	ns	0.0483 (J)	0.331	ND (<0.00347) H
Benzo(a)anthracene	0.08	TEQ	ns	ns	0.0373 (J)	ns	0.0814	0.168	0.0224 (J) H
benzo(a)pyrene	0.08	TEQ	ns	ns	0.0627	ns	0.0997	0.0661 (J)	0.0206 (J) H
benzo(b)fluoranthene	0.08	TEQ	ns	ns	0.104	ns	0.184	0.154	0.026 (J) H
Benzo(g,h,i)perylene	0.08	0.08	ns	ns	0.0823	ns	0.127	0.0641 (J)	ns
benzo(k)fluoranthene	0.08	TEQ	ns	ns	0.0295 (J)	ns	0.0438 (J)	0.0389 (J)	ND (<0.00813) H
Chrysene	0.08	TEQ	ns	ns	0.0567	ns	0.106	0.109 (J)	0.0239 (J) H
Dibenzo(a,h)anthracene	0.08	TEQ	ns	ns	0.0167 (J)	ns	0.0294 (J)	ND (<0.0219)	ND (<0.0116) H
Fluoranthene	0.1	88.9	ns	ns	0.0664	ns	0.256	1.190	0.058 (J) H
Fluorene	0.1	546.7	ns	ns	0.0217	ns	0.0198 (J)	2.200	ND (<0.00133) H
Indeno(1,2,3-cd)pyrene	0.08	TEQ	ns	ns	0.0691	ns	0.112	0.0473 (J)	ND (<0.116) H
Naphthalene	0.1	138	ns	ns	0.0477 (J)	ns	0.420	0.528	0.0565 (J) H
Phenanthrene	0.1	0.1	ns	ns	0.145	ns	0.184	3.560	0.0678 (J) H
Pyrene	0.1	2,400	ns	ns	0.0543 (J)	ns	0.183	0.672	0.0581 (J) H
TEQ <sup>a</sup>	--	--	--	--	0.08893	--	0.1458	0.1091	0.03247

**Notes:**

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ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "Guidance for Assessing Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-16-1'-2'	Sample ID: TC-SB-16-2'-3'	Sample ID: DUP of TC-SB-16-2'-3'	Sample ID: TC-SB-16-4'-5'	Sample ID: TC-SB-16-14'-15'	Sample ID: TC-SB-17-1'-2'	Sample ID: TC-SB-17-2'-3'
			Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12	Date: 10/17/12
			Time: 12:10	Time: 12:15	Time: 12:20	Time: 12:25	Time: 12:40	Time: 15:30	Time: 15:35
			Depth: 1'-2'	Depth: 2'-3'	Depth: 2'-3'	Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 2'-3'
			Comments:	Comments: H	Comments:	Comments:	Comments: H	Comments:	Comments:
Acenaphthene	0.1	65.5	ND (<0.00098)	ns	0.0242 (J)	ns	ns	0.00749 (J)	ns
Acenaphthylene	0.1	0.1	ND (<0.000605)	ns	0.0365 (J)	ns	ns	0.0466 (J)	ns
Anthracene	0.1	12,285.40	ND (<0.00225)	ns	0.0540	ns	ns	0.0449 (J)	ns
Benzo(a)anthracene	0.08	TEQ	0.0108 (J)	0.0312 (J) H	0.189	0.157 H	0.0141 (J) H	0.185	ns
benzo(a)pyrene	0.08	TEQ	0.011 (J)	0.0267 (J) H	0.231	0.232 H	ND (<0.0072)	0.239	ns
benzo(b)fluoranthene	0.08	TEQ	0.0227 (J)	0.0483 (J) H	0.306	0.228 H	0.0125 (J)	0.326	ns
Benzo(g,h,i)perylene	0.08	0.08	ND (<0.00663)	ns	0.131	ns	ns	0.131	ns
benzo(k)fluoranthene	0.08	TEQ	0.00754 (J)	0.0156 (J) H	0.0886	0.0733 (J) H	ND (<0.00625)	0.0961	ns
Chrysene	0.08	TEQ	0.0153 (J)	0.0414 (J) H	0.218	0.259 (J) H	ND (<0.00236)	0.250	ns
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.00752)	ND (<0.00815) H	0.0229 (J)	0.0346 (J) H	<b>ND (&lt;0.00891)</b>	0.0271 (J)	ns
Fluoranthene	0.1	88.9	0.0321 (J)	ns	0.437	ns	ns	0.498	ns
Fluorene	0.1	546.7	ND (<0.000865)	ns	0.0259 (J)	ns	ns	0.0247 (J)	ns
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.00793 (J)	0.0198 (J) H	0.109	0.12 (J) H	<b>ND (&lt;0.00891)</b>	0.125	ns
Naphthalene	0.1	138	ND (<0.000347)	ns	0.0906	ns	ns	0.0642	ns
Phenanthrene	0.1	0.1	0.0293 (J)	ns	0.268	ns	ns	0.357	ns
Pyrene	0.1	2,400	0.0265 (J)	ns	0.444	ns	ns	0.484	ns
TEQ <sup>a</sup>	--	--	0.0164	0.0390	0.3048	0.2959	0.007475	0.3174	--

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

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J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-17-4'-5'	Sample ID: TC-SB-17-14'-15'	Sample ID: TC-SB-18-1'-2'	Sample ID: TC-SB-18-4'-5'	Sample ID: TC-SB-18-9'-10'	Sample ID: TC-SB-19-1'-2'	Sample ID: TC-SB-19-4'-5'
			Date: 10/17/12	Date: 10/17/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12
			Time: 15:38	Time: 15:45	Time: 10:25	Time: 10:30	Time: 10:35	Time: 11:20	Time: 11:25
			Depth: 4'-5'	Depth: 14'-15'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'
			Comments: H	Comments: H	Comments:	Comments:	Comments: H	Comments:	Comments: H
Acenaphthene	0.1	65.5	ns	ns	ND (<0.00103)	ns	ns	0.00603 (J)	ND (<0.000737) H
Acenaphthylene	0.1	0.1	ns	ns	0.0163 (J)	ns	ns	0.0303 (J)	ND (<0.000458) H
Anthracene	0.1	12,285.40	ns	ns	0.0134 (J)	ns	ns	0.0257 (J)	0.0311 (J) H
Benzo(a)anthracene	0.08	TEQ	0.0523 (J) H	0.148 H	0.0561	ns	0.037 (J) H	0.101	0.0546 (J) H
benzo(a)pyrene	0.08	TEQ	0.0371 (J) H	0.117 H	0.0693	ns	0.0391 (J) H	0.132	0.05 (J) H
benzo(b)fluoranthene	0.08	TEQ	0.0504 (J) H	0.173 H	0.121	ns	0.0899 H	0.223	0.145 H
Benzo(g,h,i)perylene	0.08	0.08	ns	ns	0.0578	ns	ns	0.105	0.0463 (J) H
benzo(k)fluoranthene	0.08	TEQ	ND (<0.0084) H	0.065 (J) H	0.0334 (J)	ns	0.0289 (J) H	0.05 (J)	0.0369 (J) H
Chrysene	0.08	TEQ	0.0562 (J) H	0.172 (J) H	0.0968	ns	0.0672 (J) H	0.166	0.0893 (J) H
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.012) H	0.0151 (J) H	0.00928 (J)	ns	ND (<0.0126) H	0.0207 (J)	ND (<0.00186) H
Fluoranthene	0.1	88.9	ns	ns	0.191	ns	ns	0.354	0.121 (J) H
Fluorene	0.1	546.7	ns	ns	0.00609 (J)	ns	ns	0.0116 (J)	ND (0.000302) H
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.0251 (J) H	0.0591 (J) H	0.0471 (J)	ns	0.03 (J) H	0.0842	0.042 (J) H
Naphthalene	0.1	138	ns	ns	0.0928	ns	ns	0.238	0.0869 (J) H
Phenanthrene	0.1	0.1	ns	ns	0.138	ns	ns	0.257	0.0736 (J) H
Pyrene	0.1	2,400	ns	ns	0.160	ns	ns	0.291	0.123 (J) H
TEQ <sup>a</sup>	--	--	0.05146	0.1647	0.09696	--	0.05898	0.1815	0.07878

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

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ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-19-9'-10'	Sample ID: TC-SB-20-1'-2'	Sample ID: TC-SB-20-4'-5'	Sample ID: TC-SB-20-9'-10'	Sample ID: TC-SB-21-4'-5'	Sample ID: TC-SB-21-9'-10'	Sample ID: TC-SB-22-4'-5'
			Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/18/12	Date: 10/16/12	Date: 10/16/12	Date: 03/12/2014
			Time: 11:30	Time: 9:50	Time: 9:55	Time: 10:00	Time: 10:00	Time: 10:05	Time: 10:00
			Depth: 9'-10'	Depth: 1'-2'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 4'-5'
			Comments: H	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	ns	0.0163 (J)	ns	0.807 H	ns	ns	0.0647 (J)
Acenaphthylene	0.1	0.1	ns	0.0254 (J)	ns	ND (<0.00099) H	ns	ns	0.0169 (J)
Anthracene	0.1	12,285.40	ns	0.0229 (J)	ns	0.104 H	ns	ns	0.027 (J)
Benzo(a)anthracene	0.08	TEQ	0.0207 (J) H	0.0407 (J)	ns	0.0315 (J) H	ns	ns	0.0651 (J)
benzo(a)pyrene	0.08	TEQ	0.0216 (J) H	0.0381 (J)	ns	ND (<0.00995) H	ns	ns	0.0853
benzo(b)fluoranthene	0.08	TEQ	0.0486 (J) H	0.0590	ns	0.0226 (J) H	ns	ns	0.117
Benzo(g,h,i)perylene	0.08	0.08	ns	ND (<0.00707)	ns	ns	ns	ns	0.0872
benzo(k)fluoranthene	0.08	TEQ	0.0171 (J) H	0.0168 (J)	ns	ND (<0.00863) H	ns	ns	0.0427 (J)
Chrysene	0.08	TEQ	0.0303 (J) H	0.0512 (J)	ns	ND (<0.00326) H	ns	ns	0.139
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.00797) H	ND (<0.00802)	ns	<b>ND (&lt;0.0123) H</b>	ns	ns	ND (<0.00134)
Fluoranthene	0.1	88.9	ns	0.117	ns	0.353 (J) H	ns	ns	0.137
Fluorene	0.1	546.7	ns	0.017 (J)	ns	0.667 (J) H	ns	ns	0.0464 (J)
Indeno(1,2,3-cd)pyrene	0.08	TEQ	0.0211 (J) H	0.0204 (J)	ns	<b>ND (&lt;0.0123) H</b>	ns	ns	ND (<0.00104)
Naphthalene	0.1	138	ns	0.0974	ns	0.469 (J) H	ns	ns	0.102
Phenanthrene	0.1	0.1	ns	0.225	ns	0.198 (J) H	ns	ns	0.127
Pyrene	0.1	2,400	ns	0.123	ns	0.23 (J) H	ns	ns	0.162
TEQ <sup>a</sup>	--	--	0.0331	0.0527	--	0.0121	--	--	0.1093

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

**Table 24. Laboratory Data for Soil  
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270**

Analyte	Soil MRL mg/kg	Preliminary Screening Level (mg/kg)*	Sample ID: TC-SB-22-9'-10'	Sample ID: TC-SB-23-4'-5'	Sample ID: TC-SB-23-9'-10'	Sample ID: TC-SB-24-2'	Sample ID: TC-SB-24-4'-5'	Sample ID: TC-SB-25-2'	Sample ID: TC-SB-25-4'-5'
			Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014	Date: 03/12/2014
			Time: 10:15	Time: 9:30	Time: 9:35	Time: 11:30	Time: 11:30	Time: 13:00	Time: 13:00
			Depth: 9'-10'	Depth: 4'-5'	Depth: 9'-10'	Depth: 9'-10'	Depth: 4'-5'	Depth: 2'	Depth: 4'-5'
			Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.1	65.5	0.0405 (J)	0.0393 (J)	0.134 (J)	ND (<0.000387)	ND (<0.000370)	ND (<0.000360)	0.170
Acenaphthylene	0.1	0.1	0.0315 (J)	0.0234 (J)	0.0784 (J)	ND (<0.000240)	0.0122 (J)	0.01 (J)	0.0191 (J)
Anthracene	0.1	12,285.40	0.0269 (J)	0.0554 (J)	0.13 (J)	0.00661 (J)	0.0142 (J)	0.0163 (J)	0.169
Benzo(a)anthracene	0.08	TEQ	0.0454 (J)	0.0524 (J)	0.138 (J)	0.0203 (J)	0.0268 (J)	0.0206 (J)	0.041 (J)
benzo(a)pyrene	0.08	TEQ	0.059 (J)	0.0657 (J)	0.177 (J)	0.0211 (J)	0.0361 (J)	0.0182 (J)	0.0378 (J)
benzo(b)fluoranthene	0.08	TEQ	0.0798 (J)	0.133	0.236	0.0365 (J)	0.0494 (J)	0.0227 (J)	0.0607 (J)
Benzo(g,h,i)perylene	0.08	0.08	0.0563 (J)	ND (<0.00104)	0.158 (J)	0.0172 (J)	ND (<0.000665)	0.00974 (J)	ND (<0.000841)
benzo(k)fluoranthene	0.08	TEQ	0.0259 (J)	0.0542 (J)	0.0956 (J)	0.0115 (J)	0.0178 (J)	0.00762 (J)	0.019 (J)
Chrysene	0.08	TEQ	0.0795 (J)	0.133	0.248	0.0315 (J)	0.0604	0.0368 (J)	0.0781
Dibenzo(a,h)anthracene	0.08	TEQ	ND (<0.00148)	ND (<0.00146)	ND (<0.00380)	ND (<0.000974)	ND (<0.000933)	ND (<0.000906)	ND (<0.00118)
Fluoranthene	0.1	88.9	0.162	0.0943	0.607	0.0354 (J)	0.0810	0.0406 (J)	0.240
Fluorene	0.1	546.7	0.0431 (J)	0.0371 (J)	0.183 (J)	0.00583 (J)	0.00901 (J)	ND (<0.000148)	0.157
Indeno(1,2,3-cd)pyrene	0.08	TEQ	ND (<0.00114)	ND (<0.00113)	ND (<0.00294)	ND (<0.000754)	ND (<0.000722)	ND (<0.000701)	ND (<0.000913)
Naphthalene	0.1	138	0.102	0.0997	0.615	0.0133 (J)	0.0599	0.0583	0.204
Phenanthrene	0.1	0.1	0.102	0.185	0.619	0.0379 (J)	0.0878	0.0877	0.426
Pyrene	0.1	2,400	0.150	0.123	0.543	0.0326 (J)	0.0866	0.0532	0.175
TEQ <sup>a</sup>	--	--	0.07504	0.09112	0.2268	0.02802	0.04619	0.02374	0.05076

**Notes:**

All results expressed in milligrams per kilogram (mg/kg)

\* based on April 1, 2011 updated CLARC value

MRL = Laboratory Method Reporting Limit

H = Holding time for sample preparation or analysis exc

J = Estimated value

ns = not sampled

**Bold = Non-detection value of analyte in exceedance**

<sup>a</sup> = TEQ values calculated using Ecology's published "gu Mixtures Using Toxicity Equivalency Factors." Available the detection limit was used for calculation of the TEQ.

Table 25. Laboratory Data for Water  
Volatile Organic Compounds by EPA 8260

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: Drilling Equip Blank	Sample ID: Trip Blank 04/2/11	Sample ID: Trip Blank 05/02/2011	Sample ID: Trip Blank 05/3/11 #1	Sample ID: Trip Blank 05/2/11 #2	Sample ID: Trip Blank 05/03/2011
				Date: 5/5/2011 Time: 16:50 Depth: Comments:	Date: 4/26/2011 Time: 13:15 Depth: Comments:	Date: 4/27/2011 Time: 13:45 Depth: Comments:	Date: 4/29/2011 Time: 10:10 Depth: Comments:	Date: 7/18/2012 Time: 11:30 Depth: Comments:	Date: 5/6/2011 Time: Depth: Comments:	Date: 5/2/2011 Time: 9:22 Depth: Comments:	Date: 5/3/2011 Time: Depth: Comments:	Date: 5/2/2011 Time: Depth: Comments:	
1,1,1,2-Tetrachloroethane	1.0	0.122	1.7	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1,1-Trichloroethane (TCA)	1.0	0.080	926,000.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1,2,2-Tetrachloroethane	1.0	0.162	4.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1,2-Trichloroethane	1.0	0.154	16.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1-Dichloroethane	1.0	0.120	1,600.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1-Dichloroethene	1.0	0.130	3.2	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,1-Dichloropropene	1.0	1.896	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2,3-Trichlorobenzene	4.0	0.105	4.0	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)
1,2,3-Trichloropropane	1.0	0.225	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2,4-Trichlorobenzene	2.0	0.198	70.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
1,2,4-Trimethylbenzene	1.0	0.194	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dibromo-3-Chloropropane	1.0	0.085	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dibromoethane (EDB)	0.01	0.010	0.05	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)	ND (<0.0100)
1,2-Dichlorobenzene	1.0	0.142	1,300.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dichloroethane (EDC)	1.0	0.084	37.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dichloropropane	1.0	0.073	15.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,3,5-Trimethylbenzene	1.0	0.199	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,3-Dichlorobenzene	1.0	0.121	960.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,3-Dichloropropane	1.0	0.072	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,4-Dichlorobenzene	1.0	0.121	4.9	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2,2-Dichloropropane	2.0	0.255	2.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
2-Chlorotoluene	1.0	0.209	160.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
4-Chlorotoluene	1.0	0.166	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
4-Isopropyltoluene	1.0	0.179	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Benzene	1.0	0.125	51.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Bromobenzene	1.0	0.104	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Bromodichloromethane	1.0	0.137	17.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Bromoform	1.0	0.432	140.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Bromomethane	1.0	0.550	967.9	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Carbon tetrachloride	1.0	1.896	1.6	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Chlorobenzene	1.0	0.112	1,600.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Chloroethane	1.0	0.101	15.1	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Chloroform	1.0	1.106	470.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Chloromethane	1.0	0.816	133.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
cis-1,2-Dichloroethene	1.0	0.294	70.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
cis-1,3-Dichloropropene	1.0	0.095	21.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Dibromochloromethane	1.0	0.119	13.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Dibromomethane	1.0	0.134	80.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Dichlorodifluoromethane (CFC-12)	1.0	0.833	1,600.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Ethylbenzene	1.0	0.170	2,100.0*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Hexachloro-1,3-butadiene	4.0	0.130	18.0	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)	ND (<4.00)
Isopropylbenzene	2.0	0.169	800.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
m,p Xylenes	1.0	0.162	16,000.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Methylene chloride	1.0	0.015	590.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Naphthalene	4.0	0.160	4,938.0*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	19.9	19.9	ND (<1.00)	ND (<1.00)	ND (<1.00)
n-Butylbenzene	1.0	0.210	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
n-Propylbenzene	1.0	0.162	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
o Xylene	1.0	0.167	16,000.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
sec-Butylbenzene	1.0	0.194	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Styrenes	1.0	0.126	1.5	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
tert-Butylbenzene	1.0	0.173	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Tetrachloroethene (PCE)	1.0	0.140	0.4	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Toluene	1.0	0.415	15,000.0*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Total Xylenes	1.0	0.162	1,600.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
trans-1,2-Dichloroethene	1.0	0.113	10,000.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
trans-1,3-Dichloropropene	1.0	0.059	21.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Trichloroethene (TCE)	1.0	0.172	30.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Trichlorofluoromethane (CFC-11)	1.0	0.209	2,400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Vinyl chloride	0.2	0.670	2.4	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)	ND (<0.200)

Notes:  
 All results expressed in micrograms per liter (µg/L)  
 \* based on April 1, 2011 updated CLARC value  
 MDL = Laboratory Method Detection Limit  
 MRL = Laboratory Method Reporting Limit  
 J = Estimated value  
 ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of preliminary screening level.



Table 25. Laboratory Data for Water  
 Volatile Organic Compounds by EPA 8260

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Trip Blank 05/04/2011	Sample ID: TB	Sample ID: TB	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3
				Date: 5/4/2011	Date: 7/17/2012	Date: 7/19/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:	Time: Depth: Comments:
1,1,1,2-Tetrachloroethane	1.0	0.122	1.7	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ns	ns	ND (<1.00)
1,1,1-Trichloroethane (TCA)	1.0	0.080	926,000.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,1,2,2-Tetrachloroethane	1.0	0.162	4.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,1,2-Trichloroethane	1.0	0.154	16.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloroethane	1.0	0.120	1,600.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloroethene	1.0	0.130	3.2	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloropropene	1.0	1.896	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2,3-Trichlorobenzene	4.0	0.105	4.0	ND (<4.00)	ns	ns	ND (<4.00)	ns	ns	ns	ND (<4.00)	ns	ND (<4.00)
1,2,3-Trichloropropane	1.0	0.225	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2,4-Trichlorobenzene	2.0	0.198	70.0	ND (<2.00)	ns	ns	ND (<2.00)	ns	ns	ns	ND (<2.00)	ns	ND (<2.00)
1,2,4-Trimethylbenzene	1.0	0.194	400.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dibromo-3-Chloropropane	1.0	0.085	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dibromoethane (EDB)	0.01	0.010	0.05	ND (<0.0100)	ns	ns	ND (<0.0100)	ns	ns	ns	ND (<0.0100)	ns	ND (<0.0100)
1,2-Dichlorobenzene	1.0	0.142	1,300.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dichloroethane (EDC)	1.0	0.084	37.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dichloropropane	1.0	0.073	15.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,3,5-Trimethylbenzene	1.0	0.199	400.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,3-Dichlorobenzene	1.0	0.121	960.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,3-Dichloropropane	1.0	0.072	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
1,4-Dichlorobenzene	1.0	0.121	4.9	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
2,2-Dichloropropane	2.0	0.255	2.0	ND (<2.00)	ns	ns	ND (<2.00)	ns	ns	ns	ND (<2.00)	ns	ND (<2.00)
2-Chlorotoluene	1.0	0.209	160.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
4-Chlorotoluene	1.0	0.166	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
4-Isopropyltoluene	1.0	0.179	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Benzene	1.0	0.125	51.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Bromobenzene	1.0	0.104	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Bromodichloromethane	1.0	0.137	17.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Bromoform	1.0	0.432	140.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Bromomethane	1.0	0.550	967.9	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Carbon tetrachloride	1.0	1.896	1.6	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Chlorobenzene	1.0	0.112	1,600.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Chloroethane	1.0	0.101	15.1	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Chloroform	1.0	1.106	470.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Chloromethane	1.0	0.816	133.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
cis-1,2-Dichloroethene	1.0	0.294	70.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
cis-1,3-Dichloropropene	1.0	0.095	21.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Dibromochloromethane	1.0	0.119	13.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Dibromomethane	1.0	0.134	80.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Dichlorodifluoromethane (CFC-12)	1.0	0.833	1,600.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Ethylbenzene	1.0	0.170	2,100.0*	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Hexachloro-1,3-butadiene	4.0	0.130	18.0	ND (<4.00)	ns	ns	ND (<4.00)	ns	ns	ns	ND (<4.00)	ns	ND (<4.00)
Isopropylbenzene	2.0	0.169	800.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
m,p Xylenes	1.0	0.162	16,000.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Methylene chloride	1.0	0.015	590.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Naphthalene	4.0	0.160	4,938.0*	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
n-Butylbenzene	1.0	0.210	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
n-Propylbenzene	1.0	0.162	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
o Xylene	1.0	0.167	16,000.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
sec-Butylbenzene	1.0	0.194	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Styrenes	1.0	0.126	1.5	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
tert-Butylbenzene	1.0	0.173	1.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Tetrachloroethene (PCE)	1.0	0.140	0.4	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Toluene	1.0	0.415	15,000.0*	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Total Xylenes	1.0	0.162	1,600.0	ND (<1.00)	ns	ns	ND (<2.00)	ns	ns	ns	ND (<2.00)	ns	ND (<2.00)
trans-1,2-Dichloroethene	1.0	0.113	10,000.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
trans-1,3-Dichloropropene	1.0	0.059	21.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Trichloroethene (TCE)	1.0	0.172	30.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Trichlorofluoromethane (CFC-11)	1.0	0.209	2,400.0	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns	ns	ND (<1.00)	ns	ND (<1.00)
Vinyl chloride	0.2	0.670	2.4	ND (<0.200)	ns	ns	ND (<0.200)	ns	ns	ns	ND (<0.200)	ns	ND (<0.200)

**Notes:**  
 All results expressed in micrograms per liter (µg/L)  
 \* based on April 1, 2011 updated CLARC value  
 MDL = Laboratory Method Detection Limit  
 MRL = Laboratory Method Reporting Limit  
 J = Estimated value  
 ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 25. Laboratory Data for Water  
Volatile Organic Compounds by EPA 8260

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8	Sample ID: TC-MW-9
				Date: 7/17/2012 Time: 10:35 Depth:	Date: 5/3/2011 Time: 12:50 Depth:	Date: 7/17/2012 Time: 11:03 Depth:	Date: 5/3/2011 Time: 13:40 Depth:	Date: 7/17/2012 Time: 11:40 Depth:	Date: 5/4/2011 Time: 11:30 Depth:	Date: 7/17/2012 Time: 13:05 Depth:	Date: 5/4/2011 Time: 12:40 Depth:	Date: 7/17/2012 Time: 12:30 Depth:	Date: 5/4/2011 Time: 10:10 Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
1,1,1,2-Tetrachloroethane	1.0	0.122	1.7	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1,1-Trichloroethane (TCA)	1.0	0.080	926,000.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1,2,2-Tetrachloroethane	1.0	0.162	4.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1,2-Trichloroethane	1.0	0.154	16.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloroethane	1.0	0.120	1,600.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloroethene	1.0	0.130	3.2	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,1-Dichloropropene	1.0	1.896	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2,3-Trichlorobenzene	4.0	0.105	4.0	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)
1,2,3-Trichloropropane	1.0	0.225	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2,4-Trichlorobenzene	2.0	0.198	70.0	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)
1,2,4-Trimethylbenzene	1.0	0.194	400.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dibromo-3-Chloropropane	1.0	0.085	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dibromoethane (EDB)	0.01	0.010	0.05	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)
1,2-Dichlorobenzene	1.0	0.142	1,300.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dichloroethane (EDC)	1.0	0.084	37.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,2-Dichloropropane	1.0	0.073	15.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,3,5-Trimethylbenzene	1.0	0.199	400.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,3-Dichlorobenzene	1.0	0.121	960.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,3-Dichloropropane	1.0	0.072	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
1,4-Dichlorobenzene	1.0	0.121	4.9	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
2,2-Dichloropropane	2.0	0.255	2.0	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)
2-Chlorotoluene	1.0	0.209	160.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
4-Chlorotoluene	1.0	0.166	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
4-Isopropyltoluene	1.0	0.179	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Benzene	1.0	0.125	51.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Bromobenzene	1.0	0.104	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Bromodichloromethane	1.0	0.137	17.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Bromofom	1.0	0.432	140.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Bromomethane	1.0	0.550	967.9	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Carbon tetrachloride	1.0	1.896	1.6	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Chlorobenzene	1.0	0.112	1,600.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Chloroethane	1.0	0.101	15.1	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Chloroform	1.0	1.106	470.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Chloromethane	1.0	0.816	133.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
cis-1,2-Dichloroethene	1.0	0.294	70.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
cis-1,3-Dichloropropene	1.0	0.095	21.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Dibromochloromethane	1.0	0.119	13.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Dibromomethane	1.0	0.134	80.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Dichlorodifluoromethane (CFC-12)	1.0	0.833	1,600.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Ethylbenzene	1.0	0.170	2,100.0*	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Hexachloro-1,3-butadiene	4.0	0.130	18.0	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)
Isopropylbenzene	2.0	0.169	800.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
m,p Xylenes	1.0	0.162	16,000.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Methylene chloride	1.0	0.015	590.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Naphthalene	4.0	0.160	4,938.0*	ns	3.17	ns	ND (<1.00)	ns	10.0	ns	ND (<1.00)	ns	ND (<1.00)
n-Butylbenzene	1.0	0.210	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
n-Propylbenzene	1.0	0.162	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
o Xylene	1.0	0.167	16,000.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
sec-Butylbenzene	1.0	0.194	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Styrenes	1.0	0.126	1.5	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
tert-Butylbenzene	1.0	0.173	1.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Tetrachloroethene (PCE)	1.0	0.140	0.4	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Toluene	1.0	0.415	15,000.0*	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Total Xylenes	1.0	0.162	1,600.0	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)
trans-1,2-Dichloroethene	1.0	0.113	10,000.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Trans-1,3-Dichloropropene	1.0	0.059	21.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Trichloroethene (TCE)	1.0	0.172	30.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Trichlorofluoromethane (CFC-11)	1.0	0.209	2,400.0	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)
Vinyl chloride	0.2	0.670	2.4	ns	ND (<0.200)	ns	ND (<0.200)	ns	ND (<0.200)	ns	ND (<0.200)	ns	ND (<0.200)

Notes:

All results expressed in micrograms per liter (µg/L)  
 \* based on April 1, 2011 updated CLARC value  
 MDL = Laboratory Method Detection Limit  
 MRL = Laboratory Method Reporting Limit  
 J = Estimated value  
 ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 25. Laboratory Data for Water  
Volatile Organic Compounds by EPA 8260

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9 Date: 7/17/2012 Time: 14:05 Depth: Comments:	Sample ID: TC-MW-9R Date: 3/13/2014 Time: 11:55 Depth: Comments:	Sample ID: TC-MW-10 Date: 5/3/2011 Time: 14:40 Depth: Comments:	Sample ID: TC-MW-10 Date: 7/19/2012 Time: 11:40 Depth: Comments:	Sample ID: TC-MW-11 Date: 5/4/2011 Time: 13:50 Depth: Comments:	Sample ID: TC-MW-11 Date: 7/19/2012 Time: 12:10 Depth: Comments:	Sample ID: TC-MW-12 Date: 5/4/2011 Time: 15:20 Depth: Comments:	Sample ID: TC-MW-12 Date: 7/19/2012 Time: 8:57 Depth: Comments:	Sample ID: TC-MW-13 Date: 5/5/2011 Time: 9:35 Depth: Comments:	Sample ID: DUP of TC-MW-13 Date: 7/19/2012 Time: 9:30 Depth: Comments:	Sample ID: TC-MW-13 Date: 7/19/2012 Time: 9:25 Depth: Comments:	Sample ID: TC-MW-13 Date: 3/13/2014 Time: 10:45 Depth: Comments:
1,1,1,2-Tetrachloroethane	1.0	0.122	1.7	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1,1-Trichloroethane (TCA)	1.0	0.080	926,000.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1,2,2-Tetrachloroethane	1.0	0.162	4.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1,2-Trichloroethane	1.0	0.154	16.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1-Dichloroethane	1.0	0.120	1,600.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1-Dichloroethene	1.0	0.130	3.2	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,1-Dichloropropene	1.0	1.896	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2,3-Trichlorobenzene	4.0	0.105	4.0	ns	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ns	ns
1,2,3-Trichloropropane	1.0	0.225	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2,4-Trichlorobenzene	2.0	0.198	70.0	ns	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ns	ns
1,2,4-Trimethylbenzene	1.0	0.194	400.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2-Dibromo-3-Chloropropane	1.0	0.085	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2-Dibromoethane (EDB)	0.01	0.010	0.05	ns	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ns	ns
1,2-Dichlorobenzene	1.0	0.142	1,300.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2-Dichloroethane (EDC)	1.0	0.084	37.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,2-Dichloropropane	1.0	0.073	15.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,3,5-Trimethylbenzene	1.0	0.199	400.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,3-Dichlorobenzene	1.0	0.121	960.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,3-Dichloropropane	1.0	0.072	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
1,4-Dichlorobenzene	1.0	0.121	4.9	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
2,2-Dichloropropane	2.0	0.255	2.0	ns	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ns	ns
2-Chlorotoluene	1.0	0.209	160.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
4-Chlorotoluene	1.0	0.166	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
4-Isopropyltoluene	1.0	0.179	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Benzene	1.0	0.125	51.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Bromobenzene	1.0	0.104	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Bromodichloromethane	1.0	0.137	17.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Bromoform	1.0	0.432	140.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Bromomethane	1.0	0.550	967.9	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Carbon tetrachloride	1.0	1.896	1.6	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Chlorobenzene	1.0	0.112	1,600.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Chloroethane	1.0	0.101	15.1	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Chloroform	1.0	1.106	470.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Chloromethane	1.0	0.816	133.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
cis-1,2-Dichloroethene	1.0	0.294	70.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
cis-1,3-Dichloropropene	1.0	0.095	21.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Dibromochloromethane	1.0	0.119	13.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Dibromomethane	1.0	0.134	80.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Dichlorodifluoromethane (CFC-12)	1.0	0.833	1,600.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Ethylbenzene	1.0	0.170	2,100.0*	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Hexachloro-1,3-butadiene	4.0	0.130	18.0	ns	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ns	ns
Isopropylbenzene	2.0	0.169	800.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
m,p Xylenes	1.0	0.162	16,000.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Methylene chloride	1.0	0.015	590.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Naphthalene	4.0	0.160	4,938.0*	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
n-Butylbenzene	1.0	0.210	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
n-Propylbenzene	1.0	0.162	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
o Xylene	1.0	0.167	16,000.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
sec-Butylbenzene	1.0	0.194	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Styrenes	1.0	0.126	1.5	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
tert-Butylbenzene	1.0	0.173	1.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Tetrachloroethene (PCE)	1.0	0.140	0.4	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Toluene	1.0	0.415	15,000.0*	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Total Xylenes	1.0	0.162	1,600.0	ns	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ns	ns
trans-1,2-Dichloroethene	1.0	0.113	10,000.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
trans-1,3-Dichloropropene	1.0	0.059	21.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Trichloroethene (TCE)	1.0	0.172	30.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Trichlorofluoromethane (CFC-11)	1.0	0.209	2,400.0	ns	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ns	ns
Vinyl chloride	0.2	0.670	2.4	ns	ns	ND (<0.200)	ns	ND (<0.200)	ns	ND (<0.200)	ns	ND (<0.200)	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)  
 \* based on April 1, 2011 updated CLARC value  
 MDL = Laboratory Method Detection Limit  
 MRL = Laboratory Method Reporting Limit  
 J = Estimated value  
 ns = not sampled  
**ND** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 25. Laboratory Data for Water  
Volatile Organic Compounds by EPA 8260

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: TC-MW-20	Sample ID: TC-MW-21	Sample ID: TC-SB-24
				Date: 5/5/2011 Time: 11:00 Depth: Comments:	Date: 7/19/2012 Time: 10:00 Depth: Comments:	Date: 5/5/2011 Time: 12:10 Depth: Comments:	Date: 7/19/2012 Time: 10:35 Depth: Comments:	Date: 5/5/2011 Time: 13:20 Depth: Comments:	Date: 7/18/2012 Time: 10:00 Depth: Comments:	Date: 5/5/2011 Time: 14:30 Depth: Comments:	Date: 7/19/2012 Time: 11:10 Depth: Comments:	Date: 7/18/2012 Time: 12:45 Depth: Comments:	Date: 7/18/2012 Time: 13:00 Depth: Comments:	Date: 3/13/2014 Time: 14:35 Depth: Comments:	Date: 3/13/2014 Time: 15:40 Depth: Comments:	Date: 3/13/2014 Time: 13:23 Depth: Comments:	Date: 3/13/2014 Time: 12:00 Depth: Comments:
1,1,1,2-Tetrachloroethane	1.0	0.122	1.7	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.135)	ns	ns
1,1,1-Trichloroethane (TCA)	1.0	0.080	926,000.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.147)	ns	ns
1,1,2,2-Tetrachloroethane	1.0	0.162	4.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.202)	ns	ns
1,1,2-Trichloroethane	1.0	0.154	16.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0550)	ns	ns
1,1-Dichloroethane	1.0	0.120	1,600.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0480)	ns	ns
1,1-Dichloroethene	1.0	0.130	3.2	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0390)	ns	ns
1,1-Dichloropropene	1.0	1.894	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0910)	ns	ns
1,2,3-Trichlorobenzene	4.0	0.105	4.0	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ND (<4.00)	ns	ND (<0.0800)	ns	ns
1,2,3-Trichloropropane	1.0	0.225	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.124)	ns	ns
1,2,4-Trichlorobenzene	2.0	0.198	70.0	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ns	ND (<0.0920)	ns	ns
1,2,4-Trimethylbenzene	1.0	0.194	400.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	1.33	ND (<1.00)	ns	ND (<0.0530)	ns	ns
1,2-Dibromo-3-Chloropropane	1.0	0.085	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.361)	ns	ns
1,2-Dibromoethane (EDB)	0.01	0.010	0.05	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.0100)	ns	ND (<0.010)	ND (<0.010)	ns	ND (<0.0310)	ns	ns
1,2-Dichlorobenzene	1.0	0.142	1,300.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0650)	ns	ns
1,2-Dichloroethane (EDC)	1.0	0.084	37.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0540)	ns	ns
1,2-Dichloropropane	1.0	0.073	15.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0780)	ns	ns
1,3,5-Trimethylbenzene	1.0	0.199	400.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0540)	ns	ns
1,3-Dichlorobenzene	1.0	0.121	960.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.123)	ns	ns
1,3-Dichloropropane	1.0	0.072	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0560)	ns	ns
1,4-Dichlorobenzene	1.0	0.121	4.9	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0350)	ns	ns
2,2-Dichloropropane	2.0	0.255	2.0	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ns	ND (<0.116)	ns	ns
2-Chlorotoluene	1.0	0.209	160.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0630)	ns	ns
4-Chlorotoluene	1.0	0.166	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0350)	ns	ns
4-Isopropyltoluene	1.0	0.179	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	0.870	ns	ns
Benzene	1.0	0.125	51.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0570)	ns	ns
Bromobenzene	1.0	0.104	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.132)	ns	ns
Bromodichloromethane	1.0	0.137	17.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0520)	ns	ns
Bromofam	1.0	0.432	140.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0930)	ns	ns
Bromomethane	1.0	0.550	967.9	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.125)	ns	ns
Carbon tetrachloride	1.0	1.894	1.6	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0940)	ns	ns
Chlorobenzene	1.0	0.112	1,600.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0300)	ns	ns
Chloroethane	1.0	0.101	15.1	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.106)	ns	ns
Chloroform	1.0	1.106	470.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0590)	ns	ns
Chloromethane	1.0	0.814	133.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.155)	ns	ns
cis-1,2-Dichloroethene	1.0	0.294	70.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0870)	ns	ns
cis-1,3-Dichloropropene	1.0	0.095	21.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0590)	ns	ns
Dibromochloromethane	1.0	0.119	13.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0510)	ns	ns
Dibromomethane	1.0	0.134	80.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0910)	ns	ns
Dichlorodifluoromethane (CFC-12)	1.0	0.833	1,600.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.121)	ns	ns
Ethylbenzene	1.0	0.170	2,100.0*	1.4	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	1.3	ND (<1.00)	ns	ND (<0.0480)	ns	ns
Hexachloro-1,3-butadiene	4.0	0.130	18.0	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ns	ND (<4.00)	ND (<4.00)	ns	ND (<0.163)	ns	ns
Isopropylbenzene	2.0	0.169	800.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0350)	ns	ns
m,p Xylenes	1.0	0.162	16,000.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	2.32	ND (<1.00)	ns	ND (<0.0670)	ns	ns
Methylene chloride	1.0	0.015	590.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0640)	ns	ns
Naphthalene	4.0	0.160	4,938.0*	16.4	ns	ND (<1.00)	ns	ND (<1.00)	ns	19.9	ns	1.95	ND (<1.00)	ns	20.8	ns	ns
n-Butylbenzene	1.0	0.210	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0520)	ns	ns
n-Propylbenzene	1.0	0.162	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0330)	ns	ns
o Xylene	1.0	0.167	16,000.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	1.7	ND (<1.00)	ns	ND (<0.0400)	ns	ns
sec-Butylbenzene	1.0	0.194	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0330)	ns	ns
Styrenes	1.0	0.126	1.5	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0350)	ns	ns
tert-Butylbenzene	1.0	0.173	1.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0460)	ns	ns
Tetrachloroethene (PCE)	1.0	0.140	0.4	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0510)	ns	ns
Toluene	1.0	0.415	15,000.0*	1.41	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	2.46	ND (<1.00)	ns	ND (<0.0440)	ns	ns
Total Xylenes	1.0	0.162	1,600.0	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	ND (<2.00)	ns	4.02	ND (<2.00)	ns	ND (<0.107)	ns	ns
trans-1,2-Dichloroethene	1.0	0.113	10,000.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0630)	ns	ns
trans-1,3-Dichloropropene	1.0	0.059	21.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.0390)	ns	ns
Trichloroethene (TCE)	1.0	0.172	30.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ns	ND (<0.166)	ns	ns
Trichlorofluoromethane (CFC-11)	1.0	0.209	2,400.0	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)</				

Table 26. Laboratory Data for Water  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3
				Date: 5/5/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: 16:50	Time: 13:15	Time: 15:45	Time: 10:10	Time: 14:10	Time: 9:03	Time: 8:30	Time: 9:35	Time: 9:30	Time: 10:06	Time: 9:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
1,2,4-Trichlorobenzene	1.0	0.021	70.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dichlorobenzene	1.0	0.014	1,300.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,2-Dinitrobenzene	1.0	0.021	6.4	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,3-Dichlorobenzene	1.0	0.014	960.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,3-Dinitrobenzene	5.0	0.035	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
1,4-Dichlorobenzene	1.0	4.9	4.9	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
1,4-Dinitrobenzene	5.0	0.038	6.4	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
1-Methylnaphthalene	0.5	0.019	0.5*	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ns	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)
2,3,4,6-Tetrachlorophenol	1.0	0.020	480.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2,3,5,6-Tetrachlorophenol	1.0	0.025	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2,4,5-Trichlorophenol	2.0	0.045	3,600.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
2,4,6-Trichlorophenol	2.0	0.041	2.4	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
2,4-Dichlorophenol	2.0	0.016	191.1	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
2,4-Dimethylphenol	1.0	0.014	552.8*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2,4-Dinitrophenol	2.0	0.036	3,456.8	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
2,4-Dinitrotoluene	1.0	0.020	3.4	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2,6-Dinitrotoluene	1.0	0.018	16.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2-Chloronaphthalene	1.0	0.016	1,026.8	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2-Chlorophenol	1.0	0.018	96.7	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2-Methylnaphthalene	0.5	0.023	32.0*	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ns	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)
2-Methylphenol (o-cresol)	1.0	0.020	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
2-Nitroaniline	5.0	0.016	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
2-Nitrophenol	2.0	0.024	2.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
3-Methylphenol (m-cresol)	1.0	0.019	400.0	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
3-Nitroaniline	5.0	0.025	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
4,6-Dinitro-2-methylphenol	2.0	0.046	2.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
4-Bromo phenyl phenyl ether	1.0	0.028	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
4-Chloro-3-methylphenol	5.0	0.015	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
4-Chloroaniline	5.0	0.019	32.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
4-Chlorophenyl phenyl ether	1.0	0.026	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
4-Methylphenol (p-cresol)	1.0	0.019	40.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
4-Nitrophenol	5.0	0.019	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
Aniline	2.0	0.014	7.7	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
Azobenzene	1.0	0.010	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)
Benzoic Acid	2	0.05	64,000.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
Benzyl alcohol	1.0	0.021	2,400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Benzyl Butyl phthalate	1	0.016	1,260.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
bis (2-Ethylhexyl) adipate	1	0.028	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
bis (2-Ethylhexyl) phthalate	1	0.02	2.2	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	1.63	ND (<1.00)	1.17	ND (<1.00)
Bis(2-chloroethoxy)methane	1.0	0.018	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Bis(2-chloroethyl)ether	2.0	0.021	2.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
Bis(2-chloroisopropyl)ether	1.0	0.072	41,985.3	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Carbazole	5	0.015	5.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ns	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)
Dibenzofuran	1.0	0.014	32.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Diethylphthalate	1.0	0.016	28,412.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Dimethylphthalate	1.0	0.021	1,100,000.0*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Di-n-butylphthalate	1	0.015	2,913.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	1.09	ND (<1.00)	1.15	ND (<1.00)
Di-n-octyl phthalate	0.1	0.014	320.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Diphenylamine	5.0	0.012	2,160.5	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ns	ND (<2.00)	ND (<5.00)	ND (<2.00)	ND (<5.00)
Hexachloro-1,3-butadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Hexachlorobenzene	1.0	0.016	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Hexachlorobutadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Hexachlorocyclopentadiene	1.0	0.031	1,100.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Hexachloroethane	1.0	0.016	3.3	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Isophorone	1.0	0.010	600.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Nitrobenzene	2.0	0.018	448.5	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
N-Nitroso-di-n-propylamine	1.0	0.012	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)
Pentachlorophenol	2.0	0.013	2.0*	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)
Phenol	2.0	0.017	1,110,000.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ns	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)

Table 26. Laboratory Data for Water  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8	
				Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012	Date: 2/15/2013
				Time: 10:35	Time: 12:50	Time: 11:03	Time: 13:40	Time: 11:40	Time: 13:25	Time: 11:30	Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30	
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:		
1,2,4-Trichlorobenzene	1.0	0.021	70.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0194)	ND (<1.00)	ND (<1.00)	ND (<0.0194)	ND (<1.00)	ND (<1.00)	
1,2-Dichlorobenzene	1.0	0.014	1,300.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0232)	ND (<1.00)	ND (<1.00)	ND (<0.0232)	ND (<1.00)	ND (<1.00)	
1,2-Dinitrobenzene	1.0	0.021	6.4	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0619)	ND (<1.00)	ND (<1.00)	ND (<0.0619)	ND (<1.00)	ND (<1.00)	
1,3-Dichlorobenzene	1.0	0.014	960.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0161)	ND (<1.00)	ND (<1.00)	ND (<0.0161)	ND (<1.00)	ND (<1.00)	
1,3-Dinitrobenzene	5.0	0.035	5.0	<b>ND (&lt;5.00)</b>	ND (<5.00)	<b>ND (&lt;5.00)</b>	ND (<5.00)	<b>ND (&lt;5.00)</b>	ND (<0.0444)	ND (<5.00)	<b>ND (&lt;5.00)</b>	ND (<0.0444)	ND (<5.00)	<b>ND (&lt;5.00)</b>	
1,4-Dichlorobenzene	1.0	4.9	4.9	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)	ND (<1.00)	
1,4-Dinitrobenzene	5.0	0.038	6.4	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0505)	ND (<5.00)	ND (<5.00)	ND (<0.0505)	ND (<5.00)	ND (<5.00)	
1-Methylnaphthalene	0.5	0.019	0.5*	ND (<0.100)	<b>ND (&lt;0.500)</b>	0.314	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.0226)	0.885	1.47	0.75	<b>ND (&lt;0.500)</b>	0.394	
2,3,4,6-Tetrachlorophenol	1.0	0.020	480.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0208)	ND (<1.00)	ND (<1.00)	ND (<0.0208)	ND (<1.00)	ND (<1.00)	
2,3,5,6-Tetrachlorophenol	1.0	0.025	1.0	<b>ND (&lt;1.00)</b>	ND (<1.00)	<b>ND (&lt;1.00)</b>	ND (<1.00)	<b>ND (&lt;1.00)</b>	ND (<0.0268)	ND (<1.00)	<b>ND (&lt;1.00)</b>	ND (<0.0268)	ND (<1.00)	<b>ND (&lt;1.00)</b>	
2,4,5-Trichlorophenol	2.0	0.045	3,600.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0339)	ND (<2.00)	ND (<2.00)	ND (<0.0339)	ND (<2.00)	ND (<2.00)	
2,4,6-Trichlorophenol	2.0	0.041	2.4	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0210)	ND (<2.00)	ND (<2.00)	ND (<0.0210)	ND (<2.00)	ND (<2.00)	
2,4-Dichlorophenol	2.0	0.016	191.1	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0188)	ND (<2.00)	ND (<2.00)	ND (<0.0188)	ND (<2.00)	ND (<2.00)	
2,4-Dimethylphenol	1.0	0.014	552.8*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0376)	ND (<1.00)	ND (<1.00)	ND (<0.0376)	ND (<1.00)	ND (<1.00)	
2,4-Dinitrophenol	2.0	0.036	3,456.8	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.689)	ND (<2.00)	ND (<2.00)	ND (<0.689)	ND (<2.00)	ND (<2.00)	
2,4-Dinitrotoluene	1.0	0.020	3.4	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0701)	ND (<1.00)	ND (<1.00)	ND (<0.0701)	ND (<1.00)	ND (<1.00)	
2,6-Dinitrotoluene	1.0	0.018	16.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0269)	ND (<1.00)	ND (<1.00)	ND (<0.0269)	ND (<1.00)	ND (<1.00)	
2-Chloronaphthalene	1.0	0.016	1,026.8	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0143)	ND (<1.00)	ND (<1.00)	ND (<0.0143)	ND (<1.00)	ND (<1.00)	
2-Chlorophenol	1.0	0.018	96.7	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0132)	ND (<1.00)	ND (<1.00)	ND (<0.0132)	ND (<1.00)	ND (<1.00)	
2-Methylnaphthalene	0.5	0.023	32.0*	ND (<0.100)	ND (<0.500)	0.144	ND (<0.500)	ND (<0.100)	ND (<0.00384)	ND (<0.500)	1.44	0.633	ND (<0.500)	0.195	
2-Methylphenol (o-cresol)	1.0	0.020	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0245)	ND (<1.00)	ND (<1.00)	ND (<0.0245)	ND (<1.00)	ND (<1.00)	
2-Nitroaniline	5.0	0.016	5.0	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0710)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0710)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	
2-Nitrophenol	2.0	0.024	2.0	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0912)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0912)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	
3-Methylphenol (m-cresol)	1.0	0.019	400.0	ns	ns	ns	ns	ns	ND (<0.0568)	ns	ns	ND (<0.0568)	ns	ns	
3-Nitroaniline	5.0	0.025	5.0	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0245)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0245)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	
4,6-Dinitro-2-methylphenol	2.0	0.046	2.0	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.487)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.487)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	
4-Bromo phenyl phenyl ether	1.0	0.028	1.0	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0241)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0241)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	
4-Chloro-3-methylphenol	5.0	0.015	5.0	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0687)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0687)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	
4-Chloroaniline	5.0	0.019	32.0	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0180)	ND (<5.00)	ND (<5.00)	ND (<0.0180)	ND (<5.00)	ND (<5.00)	
4-Chlorophenyl phenyl ether	1.0	0.026	1.0	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0199)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0199)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	
4-Methylphenol (p-cresol)	1.0	0.019	40.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0563)	ND (<1.00)	ND (<1.00)	ND (<0.0563)	ND (<1.00)	ND (<1.00)	
4-Nitrophenol	5.0	0.019	5.0	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.431)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.431)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	
Aniline	2.0	0.014	7.7	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0390)	ND (<2.00)	ND (<2.00)	ND (<0.0390)	ND (<2.00)	ND (<2.00)	
Azobenzene	1.0	0.010	1.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0221)	ND (<1.00)	ND (<1.00)	ND (<0.0221)	ND (<1.00)	ND (<1.00)	
Benzoic Acid	2	0.05	64,000.0	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	0.451	ND (<2.00)	ND (<2.00)	1.09	ND (<2.00)	ND (<2.00)	
Benzyl alcohol	1.0	0.021	2,400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0371)	ND (<1.00)	ND (<1.00)	ND (<0.0371)	ND (<1.00)	ND (<1.00)	
Benzyl Butyl phthalate	1	0.016	1,260.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0552)	ND (<1.00)	ND (<1.00)	ND (<0.0552)	ND (<1.00)	ND (<1.00)	
bis [2-Ethylhexyl] adipate	1	0.028	400.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	1.14	0.703	ND (<1.00)	0.871	ND (<1.00)	ND (<1.00)	
bis [2-Ethylhexyl] phthalate	1	0.02	2.2	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	4.52	0.208	ND (<1.00)	1.19	1.27	ND (<1.00)	
Bis[2-chloroethoxy]methane	1.0	0.018	1.0	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0337)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0337)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	
Bis[2-chloroethyl]ether	2.0	0.021	2.0	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0294)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0294)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	
Bis[2-chloroisopropyl]ether	1.0	0.072	41,985.3	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)	ND (<1.00)	
Carbazole	5	0.015	5.0	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	ND (<0.0553)	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	0.481	<b>ND (&lt;5.00)</b>	<b>ND (&lt;5.00)</b>	
Dibenzofuran	1.0	0.014	32.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0131)	ND (<1.00)	ND (<1.00)	0.794	ND (<1.00)	ND (<1.00)	
Diethylphthalate	1.0	0.016	28,412.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.181	ND (<1.00)	ND (<1.00)	ND (<0.0347)	ND (<1.00)	ND (<1.00)	
Dimethylphthalate	1.0	0.021	1,100,000.0*	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.189	ND (<1.00)	ND (<1.00)	
Di-n-butylphthalate	1	0.015	2,913.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	1.17	0.114	ND (<1.00)	1.12	0.204	ND (<1.00)	
Di-n-octyl phthalate	0.1	0.014	320.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0258)	ND (<1.00)	ND (<1.00)	1.74	ND (<0.0258)	ND (<1.00)	
Diphenylamine	5.0	0.012	2,160.5	ND (<2.00)	ND (<5.00)	ND (<2.00)	ND (<5.00)	ND (<2.00)	ND (<0.0284)	ND (<5.00)	ND (<2.00)	ND (<0.0284)	ND (<5.00)	ND (<2.00)	
Hexachloro-1,3-butadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0390)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	
Hexachlorobenzene	1.0	0.016	1.0	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0264)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0264)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	
Hexachlorobutadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0390)	ND (<1.00)	ND (<1.00)	ND (<0.0390)	ND (<1.00)	ND (<1.00)	
Hexachlorocyclopentadiene	1.0	0.031	1,100.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0313)	ND (<1.00)	ND (<1.00)	ND (<0.0313)	ND (<1.00)	ND (<1.00)	
Hexachloroethane	1.0	0.016	3.3	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0653)	ND (<1.00)	ND (<1.00)	ND (<0.0653)	ND (<1.00)	ND (<1.00)	
Isophorone	1.0	0.010	600.0	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0205)	ND (<1.00)	ND (<1.00)	ND (<0.0205)	ND (<1.00)	ND (<1.00)	
Nitrobenzene	2.0	0.018	448.5	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0392)	ND (<2.00)	ND (<2.00)	ND (<0.0392)	ND (<2.00)	ND (<2.00)	
N-Nitroso-di-n-propylamine	1.0	0.012	1.0	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0642)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	ND (<0.0642)	<b>ND (&lt;1.00)</b>	<b>ND (&lt;1.00)</b>	
Pentachlorophenol	2.0	0.013	2.0*	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0344)	<b>ND (&lt;2.00)</b>	<b>ND (&lt;2.00)</b>	ND (<0.0344)	<b>ND (&lt;2.00)</b>		



Table 26. Laboratory Data for Water  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17
				Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 5/5/2011	Date: 7/19/2012	Date: 5/5/2011	Date: 7/18/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 7/18/2012
				Time: 11:00	Time: 10:00	Time: 14:35	Time: 12:10	Time: 10:35	Time: 13:20	Time: 10:00	Time: 14:30	Time: 11:10	Time: 15:15	Time: 12:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	
1,2,4-Trichlorobenzene	1.0	0.021	70.0	ND (<1.00)	ND (<1.00)	ND (<0.0194)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0194)	ND (<1.00)
1,2-Dichlorobenzene	1.0	0.014	1,300.0	ND (<1.00)	ND (<1.00)	ND (<0.0232)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0232)	ND (<1.00)
1,2-Dinitrobenzene	1.0	0.021	6.4	ND (<1.00)	ND (<1.00)	ND (<0.0619)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0619)	ND (<1.00)
1,3-Dichlorobenzene	1.0	0.014	960.0	ND (<1.00)	ND (<1.00)	ND (<0.0161)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0161)	ND (<1.00)
1,3-Dinitrobenzene	5.0	0.035	5.0	ND (<5.00)	ND (<5.00)	ND (<0.0444)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0444)	ND (<5.00)
1,4-Dichlorobenzene	1.0	4.9	4.9	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)
1,4-Dinitrobenzene	5.0	0.038	6.4	ND (<5.00)	ND (<5.00)	ND (<0.0505)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0505)	ND (<5.00)
1-Methylnaphthalene	0.5	0.019	0.5*	4	3.76	2.39	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	1.54	0.596	0.252	0.447
2,3,4,6-Tetrachlorophenol	1.0	0.020	480.0	2.49	ND (<1.00)	ND (<0.0208)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0208)	ND (<1.00)
2,3,5,6-Tetrachlorophenol	1.0	0.025	1.0	2.49	ND (<1.00)	ND (<0.0268)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0268)	ND (<1.00)
2,4,5-Trichlorophenol	2.0	0.045	3,600.0	ND (<2.00)	ND (<2.00)	ND (<0.0339)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0339)	ND (<2.00)
2,4,6-Trichlorophenol	2.0	0.041	2.4	ND (<2.00)	ND (<2.00)	ND (<0.0210)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0210)	ND (<2.00)
2,4-Dichlorophenol	2.0	0.016	191.1	ND (<2.00)	ND (<2.00)	ND (<0.0188)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0188)	ND (<2.00)
2,4-Dimethylphenol	1.0	0.014	552.8*	2.4	11	0.937	ND (<1.00)	3.23	ND (<1.00)	2.43	ND (<1.00)	ND (<1.00)	ND (<0.0376)	ND (<1.00)
2,4-Dinitrophenol	2.0	0.036	3,456.8	ND (<2.00)	ND (<2.00)	ND (<0.689)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.689)	ND (<2.00)
2,4-Dinitrotoluene	1.0	0.020	3.4	ND (<1.00)	ND (<1.00)	ND (<0.0701)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0701)	ND (<1.00)
2,6-Dinitrotoluene	1.0	0.018	16.0	ND (<1.00)	ND (<1.00)	ND (<0.0269)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0269)	ND (<1.00)
2-Chloronaphthalene	1.0	0.016	1,026.8	ND (<1.00)	ND (<1.00)	ND (<0.0143)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0143)	ND (<1.00)
2-Chlorophenol	1.0	0.018	96.7	ND (<1.00)	ND (<1.00)	ND (<0.0132)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0132)	ND (<1.00)
2-Methylnaphthalene	0.5	0.023	32.0*	6.55	4.95	3.02	0.513	ND (<0.100)	ND (<0.500)	ND (<0.100)	1.55	0.222	0.0870	0.404
2-Methylphenol (o-cresol)	1.0	0.020	400.0	ND (<1.00)	7.59	0.600	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0245)	ND (<1.00)
2-Nitroaniline	5.0	0.016	5.0	ND (<5.00)	ND (<5.00)	ND (<0.0710)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0710)	ND (<5.00)
2-Nitrophenol	2.0	0.024	2.0	ND (<2.00)	ND (<2.00)	ND (<0.0912)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0912)	ND (<2.00)
3-Methylphenol (m-cresol)	1.0	0.019	400.0	ns	ns	4.12	ns	ns	ns	ns	ns	ns	0.0969	ns
3-Nitroaniline	5.0	0.025	5.0	ND (<5.00)	ND (<5.00)	ND (<0.0245)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0245)	ND (<5.00)
4,6-Dinitro-2-methylphenol	2.0	0.046	2.0	ND (<2.00)	ND (<2.00)	ND (<0.487)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.487)	ND (<2.00)
4-Bromo phenyl phenyl ether	1.0	0.028	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0241)	ND (<1.00)
4-Chloro-3-methylphenol	5.0	0.015	5.0	ND (<5.00)	ND (<5.00)	ND (<0.0687)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0687)	ND (<5.00)
4-Chloroaniline	5.0	0.019	32.0	ND (<5.00)	ND (<5.00)	ND (<0.0180)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.0180)	ND (<5.00)
4-Chlorophenyl phenyl ether	1.0	0.026	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0199)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0199)	ND (<1.00)
4-Methylphenol (p-cresol)	1.0	0.019	40.0	ND (<1.00)	398	4.12	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.0969	22
4-Nitrophenol	5.0	0.019	5.0	ND (<5.00)	ND (<5.00)	ND (<0.431)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<0.431)	ND (<5.00)
Aniline	2.0	0.014	7.7	ND (<2.00)	ND (<2.00)	ND (<0.0390)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0390)	ND (<2.00)
Azobenzene	1.0	0.010	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0221)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0221)	ND (<1.00)
Benzoic Acid	2	0.05	64,000.0	ND (<2.00)	42.5	0.632	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	0.946	7.34
Benzyl alcohol	1.0	0.021	2,400.0	ND (<1.00)	ND (<1.00)	ND (<0.0371)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0371)	ND (<1.00)
Benzyl Butyl phthalate	1	0.016	1,260.0	ND (<1.00)	ND (<1.00)	0.128	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.122	ND (<1.00)
bis [2-Ethylhexyl] adipate	1	0.028	400.0	ND (<1.00)	ND (<1.00)	0.624	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.774	ND (<1.00)
bis [2-Ethylhexyl] phthalate	1	0.02	2.2	ND (<1.00)	1.57	16.9	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	1.15	0.271	1.01
Bis[2-chloroethoxy]methane	1.0	0.018	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)
Bis[2-chloroethyl]ether	2.0	0.021	2.0	ND (<2.00)	ND (<2.00)	ND (<0.0294)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0294)	ND (<2.00)
Bis[2-chloroisopropyl]ether	1.0	0.072	41,985.3	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0337)	ND (<1.00)
Carbazole	5	0.015	5.0	ND (<5.00)	ND (<5.00)	0.215	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	ND (<5.00)	0.213	ND (<5.00)
Dibenzofuran	1.0	0.014	32.0	ND (<1.00)	ND (<1.00)	0.198	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	0.157	ND (<1.00)
Diethylphthalate	1.0	0.016	28,412.0	ND (<1.00)	ND (<1.00)	0.186	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0347)	ND (<1.00)
Dimethylphthalate	1.0	0.021	1,100,000.0*	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)
Di-n-butylphthalate	1	0.015	2,913.0	ND (<1.00)	ND (<1.00)	0.157	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	1.1	ND (<1.00)	0.111	1.19
Di-n-octyl phthalate	0.1	0.014	320.0	ND (<1.00)	ND (<1.00)	ND (<0.0258)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0258)	ND (<1.00)
Diphenylamine	5.0	0.012	2,160.5	ND (<5.00)	ND (<2.00)	ND (<0.0284)	ND (<5.00)	ND (<2.00)	ND (<5.00)	ND (<2.00)	ND (<5.00)	ND (<2.00)	ND (<0.0284)	ND (<2.00)
Hexachloro-1,3-butadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)
Hexachlorobenzene	1.0	0.016	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0264)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0264)	ND (<1.00)
Hexachlorobutadiene	4.0	18.0	18.0	ND (<1.00)	ND (<1.00)	ND (<0.0390)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0390)	ND (<1.00)
Hexachlorocyclopentadiene	1.0	0.031	1,100.0	ND (<1.00)	ND (<1.00)	ND (<0.0313)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0313)	ND (<1.00)
Hexachloroethane	1.0	0.016	3.3	ND (<1.00)	ND (<1.00)	ND (<0.0653)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0653)	ND (<1.00)
Isophorone	1.0	0.010	600.0	ND (<1.00)	ND (<1.00)	ND (<0.0205)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<1.00)	ND (<0.0205)	ND (<1.00)
Nitrobenzene	2.0	0.018	448.5	ND (<2.00)	ND (<2.00)	ND (<0.0392)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<2.00)	ND (<0.0392)	ND (<2.00)
N-Nitroso-di-n-propylamine	1.0	0.012	1.0	ND (<1.00)	ND (<1.00)	ND (<0.0642)	ND (<1.00)	ND (<1.00)	ND (<1.0					



Table 26. Laboratory Data for Water  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: TC-MW-20	Sample ID: TC-MW-21	Sample ID: TC-SB-24
				Date: 2/14/2013	Date: 7/18/2012	Date: 3/13/2014	Date: 3/13/2014	Date: 3/13/2014	
				Time: 15:25	Time: 13:00	Time: 14:35	Time: 15:40	Time: 13:23	
				Depth:	Depth:	Depth:	Depth:	Depth:	
Comments:				Comments:		Comments:		Comments:	
1,2,4-Trichlorobenzene	1.0	0.021	70.0	ns	ND (<1.00)	ns	ND (<0.0114)	ns	ns
1,2-Dichlorobenzene	1.0	0.014	1,300.0	ns	ND (<1.00)	ns	ND (<0.0151)	ns	ns
1,2-Dinitrobenzene	1.0	0.021	6.4	ns	ND (<1.00)	ns	ND (<0.0214)	ns	ns
1,3-Dichlorobenzene	1.0	0.014	960.0	ns	ND (<1.00)	ns	ND (<0.00810)	ns	ns
1,3-Dinitrobenzene	5.0	0.035	5.0	ns	ND (<5.00)	ns	ND (<0.0793)	ns	ns
1,4-Dichlorobenzene	1.0	4.9	4.9	ns	ND (<1.00)	ns	ND (<0.0161)	ns	ns
1,4-Dinitrobenzene	5.0	0.038	6.4	ns	ND (<5.00)	ns	ND (<0.110)	ns	ns
1-Methylnaphthalene	0.5	0.019	0.5*	0.0835	ND (<0.100)	ns	1.31	ns	1.53
2,3,4,6-Tetrachlorophenol	1.0	0.020	480.0	ns	ND (<1.00)	ns	ND (<0.00915)	ns	ns
2,3,5,6-Tetrachlorophenol	1.0	0.025	1.0	ns	ND (<1.00)	ns	ND (<0.0177)	ns	ns
2,4,5-Trichlorophenol	2.0	0.045	3,600.0	ns	ND (<2.00)	ns	ND (<0.0452)	ns	ns
2,4,6-Trichlorophenol	2.0	0.041	2.4	ns	ND (<2.00)	ns	ND (<0.0171)	ns	ns
2,4-Dichlorophenol	2.0	0.016	191.1	ns	ND (<2.00)	ns	ND (<0.0167)	ns	ns
2,4-Dimethylphenol	1.0	0.014	552.8*	ns	ND (<1.00)	ns	0.0923	ns	ns
2,4-Dinitrophenol	2.0	0.036	3,456.8	ns	ND (<2.00)	ns	ND (<0.122)	ns	ns
2,4-Dinitrotoluene	1.0	0.020	3.4	ns	ND (<1.00)	ns	ND (<0.128)	ns	ns
2,6-Dinitrotoluene	1.0	0.018	16.0	ns	ND (<1.00)	ns	ND (<0.0118)	ns	ns
2-Chloronaphthalene	1.0	0.016	1,026.8	ns	ND (<1.00)	ns	ND (<0.0120)	ns	ns
2-Chlorophenol	1.0	0.018	96.7	ns	ND (<1.00)	ns	ND (<0.0157)	ns	ns
2-Methylnaphthalene	0.5	0.023	32.0*	0.0652	0.123	ns	1.30	ns	0.820
2-Methylphenol (o-cresol)	1.0	0.020	400.0	ns	ND (<1.00)	ns	ND (<0.0209)	ns	ns
2-Nitroaniline	5.0	0.016	5.0	ns	ND (<5.00)	ns	ND (<0.0231)	ns	ns
2-Nitrophenol	2.0	0.024	2.0	ns	ND (<2.00)	ns	ND (<0.0194)	ns	ns
3-Methylphenol (m-cresol)	1.0	0.019	400.0	ns	ns	ns	0.0366	ns	ns
3-Nitroaniline	5.0	0.025	5.0	ns	ND (<5.00)	ns	ND (<0.0245)	ns	ns
4,6-Dinitro-2-methylphenol	2.0	0.046	2.0	ns	ND (<2.00)	ns	ND (<0.0482)	ns	ns
4-Bromo phenyl phenyl ether	1.0	0.028	1.0	ns	ND (<1.00)	ns	ND (<0.0210)	ns	ns
4-Chloro-3-methylphenol	5.0	0.015	5.0	ns	ND (<5.00)	ns	ND (<0.0131)	ns	ns
4-Chloroaniline	5.0	0.019	32.0	ns	ND (<5.00)	ns	ND (<0.00710)	ns	ns
4-Chlorophenyl phenyl ether	1.0	0.026	1.0	ns	ND (<1.00)	ns	ND (<0.0183)	ns	ns
4-Methylphenol (p-cresol)	1.0	0.019	40.0	ns	1.69	ns	0.0366	ns	ns
4-Nitrophenol	5.0	0.019	5.0	ns	ND (<5.00)	ns	ND (<0.108)	ns	ns
Aniline	2.0	0.014	7.7	ns	ND (<2.00)	ns	ND (<0.0111)	ns	ns
Azobenzene	1.0	0.010	1.0	ns	ND (<1.00)	ns	ND (<0.00772)	ns	ns
Benzoic Acid	2	0.05	64,000.0	ns	ND (<2.00)	ns	ND (<0.0503)	ns	ns
Benzyl alcohol	1.0	0.021	2,400.0	ns	ND (<1.00)	ns	ND (<0.0164)	ns	ns
Benzyl Butyl phthalate	1	0.016	1,260.0	ns	ND (<1.00)	ns	0.260	ns	ns
bis (2-Ethylhexyl) adipate	1	0.028	400.0	ns	ND (<1.00)	ns	ND (<0.0106)	ns	ns
bis (2-Ethylhexyl) phthalate	1	0.02	2.2	ns	ND (<1.00)	ns	2.85	ns	ns
Bis(2-chloroethoxy)methane	1.0	0.018	1.0	ns	ND (<1.00)	ns	ND (<0.0136)	ns	ns
Bis(2-chloroethyl)ether	2.0	0.021	2.0	ns	ND (<2.00)	ns	ND (<0.0161)	ns	ns
Bis(2-chloroisopropyl)ether	1.0	0.072	41,985.3	ns	ND (<1.00)	ns	ND (<0.0162)	ns	ns
Carbazole	5	0.015	5.0	ns	ND (<5.00)	ns	0.410	ns	ns
Dibenzofuran	1.0	0.014	32.0	ns	ND (<1.00)	ns	1.35	ns	ns
Diethylphthalate	1.0	0.016	28,412.0	ns	ND (<1.00)	ns	0.0996	ns	ns
Dimethylphthalate	1.0	0.021	1,100,000.0*	ns	ND (<1.00)	ns	ND (<0.00871)	ns	ns
Di-n-butylphthalate	1	0.015	2,913.0	ns	ND (<1.00)	ns	0.894	ns	ns
Di-n-octyl phthalate	0.1	0.014	320.0	ns	ND (<1.00)	ns	ND (<0.00659)	ns	ns
Diphenylamine	5.0	0.012	2,160.5	ns	ND (<2.00)	ns	ND (<0.00797)	ns	ns
Hexachloro-1,3-butadiene	4.0	18.0	18.0	ns	ND (<1.00)	ns	ns	ns	ns
Hexachlorobenzene	1.0	0.016	1.0	ns	ND (<1.00)	ns	ND (<0.0195)	ns	ns
Hexachlorobutadiene	4.0	18.0	18.0	ns	ND (<1.00)	ns	ND (<0.0139)	ns	ns
Hexachlorocyclopentadiene	1.0	0.031	1,100.0	ns	ND (<1.00)	ns	ND (<0.0139)	ns	ns
Hexachloroethane	1.0	0.016	3.3	ns	ND (<1.00)	ns	ND (<0.0937)	ns	ns
Isophorone	1.0	0.010	600.0	ns	ND (<1.00)	ns	ND (<0.00837)	ns	ns
Nitrobenzene	2.0	0.018	448.5	ns	ND (<2.00)	ns	ND (<0.0358)	ns	ns
N-Nitroso-di-n-propylamine	1.0	0.012	1.0	ns	ND (<1.00)	ns	ND (<0.0134)	ns	ns
Pentachlorophenol	2.0	0.013	2.0*	ns	ND (<2.00)	ns	ND (<0.109)	ns	ns
Phenol	2.0	0.017	1,110,000.0	ns	ND (<2.00)	ns	ND (<0.0111)	ns	ns

**Table 27. Laboratory Data for Water Tributyl  
Tin Ion by EPA Method SW-846-820D**

Analyte	Water MRL	Water MDL	Preliminary Screening Level (µg/L) <sup>1</sup>	Sample ID: Method Blank		Sample ID: TC-MW-13	
	µg/L	µg/L		Date: NA Time: Depth: Comments:		Date: 5/5/2011 Time: 9:35 Depth: Comments:	
Tributyl Tin Ion (as TBT Ion)	0.2	0.103	0.2	0.19	U	0.19	U

**Notes:**

ns = not sampled

DRAFT

**Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods**

<b>Gasoline range petroleum hydrocarbons by HDIC</b>									
Analyte	Water MRL  µg/L	Water MDL  µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: Drilling Equip Blank	Sample ID: GW Equip Blank	Sample ID: TB
				Date: 4/26/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 7/18/2012	Date: 7/19/2012	Date: 7/13/2012
				Time: 13:15	Time: 15:45	Time: 10:10	Time: 11:30	Time: 12:30	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	<b>ND (&lt;500)</b>	<b>ND (&lt;500)</b>	ns	ns	ns
Gasoline	100	64	500	ND (<400)	ND (<400)	ND (<400)	ns	ns	ns
<b>Diesel range petroleum hydrocarbons by NWTPH-Dx</b>									
Analyte	Water MRL  µg/L	Water MDL  µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: Drilling Equip Blank	Sample ID: GW Equip Blank	Sample ID: TB
				Date: 4/26/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 7/18/2012	Date: 7/19/2012	Date: 7/17/2012
				Time: 13:15	Time: 15:45	Time: 10:10	Time: 11:30	Time: 12:30	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ND (<50)	ND (<50)	ND (<50)	ND (<50)	ND (<50)	ns
Heavy Oil	100	64	500	ND (<100)	ND (<100)	ND (<100)	ND (<100)	ND (<100)	ns
Diesel Range Organics	50	38.4	500	ns	ns	ns	ns	ns	ns
<b>Gasoline range petroleum hydrocarbons by NWTPH-Gx</b>									
Analyte	Water MRL  µg/L	Water MDL  µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: Drilling Equip Blank	Sample ID: GW Equip Blank	Sample ID: TB
				Date: 4/26/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 7/18/2012	Date: 7/19/2012	Date: 7/17/2012
				Time: 13:15	Time: 15:45	Time: 10:10	Time: 11:30	Time: 12:30	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ns	ND (<50)	ND (<50)	ND (<50)
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods**

<b>Gasoline range petroleum hydrocarbons by HDIC</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TB	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3
				Date: 7/18/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011
				Time:	Time: 14:10	Time: 9:03	Time: 8:30	Time: 9:35	Time: 9:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns

<b>Diesel range petroleum hydrocarbons by NWTPH-Dx</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TB	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3
				Date: 7/19/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011
				Time:	Time: 14:10	Time: 9:03	Time: 8:30	Time: 9:35	Time: 9:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ND (<50)	ND (<50)	ns	ns	ns
Heavy Oil	100	64	500	ns	ND (<100)	ND (<100)	ns	ns	ns
Diesel Range Organics	50	38.4	500	ns	ns	ns	ns	ns	ns

<b>Gasoline range petroleum hydrocarbons by NWTPH-Gx</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TB	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3
				Date: 7/19/2012	Date: 5/7/2011	Date: 7/17/2012	Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011
				Time:	Time: 14:10	Time: 9:03	Time: 8:30	Time: 9:35	Time: 9:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ND (<50)	ND (<50.0)	ND (<50)	ns	ns	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods**

<b>Gasoline range petroleum hydrocarbons by HDIC</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6
				Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: 10:06	Time: 9:30	Time: 10:35	Time: 12:50	Time: 11:03	Time: 13:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns

<b>Diesel range petroleum hydrocarbons by NWTPH-Dx</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6
				Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: 10:06	Time: 9:30	Time: 10:35	Time: 12:50	Time: 11:03	Time: 13:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Heavy Oil	100	64	500	ns	ns	ns	ns	ns	ns
Diesel Range Organics	50	38.4	500	ns	ns	ns	ns	ns	ns

<b>Gasoline range petroleum hydrocarbons by NWTPH-Gx</b>									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6
				Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: 10:06	Time: 9:30	Time: 10:35	Time: 12:50	Time: 11:03	Time: 13:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ns	ns	ns	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods

Gasoline range petroleum hydrocarbons by HDIC									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-6	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8
				Date: 7/17/2012	Date: 5/4/2011	Date: 7/17/12	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012
				Time: 11:40	Time: 11:30	Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns
Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-6	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8
				Date: 7/17/2012	Date: 5/4/2011	Date: 7/17/12	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012
				Time: 11:40	Time: 11:30	Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ND (<50.0)	ND (<9.81)	ns	ns
Heavy Oil	100	64	500	ns	ns	ND (<100)	146	ns	ns
Diesel Range Organics	50	38.4	500	ns	ns	ns	174	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-6	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8
				Date: 7/17/2012	Date: 5/4/2011	Date: 7/17/12	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012
				Time: 11:40	Time: 11:30	Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ND (<50)	2.99	ns	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods

Gasoline range petroleum hydrocarbons by HDIC									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-10	Sample ID: TC-MW-10	Sample ID: TC-MW-11	Sample ID: TC-MW-11
				Date: 5/4/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012
				Time: 10:10	Time: 14:05	Time: 14:40	Time: 11:40	Time: 13:50	Time: 12:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns
Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-10	Sample ID: TC-MW-10	Sample ID: TC-MW-11	Sample ID: TC-MW-11
				Date: 5/4/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012
				Time: 10:10	Time: 14:05	Time: 14:40	Time: 11:40	Time: 13:50	Time: 12:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Heavy Oil	100	64	500	ns	ns	ns	ns	ns	ns
Diesel Range Organics	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-10	Sample ID: TC-MW-10	Sample ID: TC-MW-11	Sample ID: TC-MW-11
				Date: 5/4/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012
				Time: 10:10	Time: 14:05	Time: 14:40	Time: 11:40	Time: 13:50	Time: 12:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ns	ns	ns	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods

Gasoline range petroleum hydrocarbons by HDIC									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-13
				Date: 5/4/2011	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 2/14/2013
				Time: 15:20	Time: 8:57	Time: 9:35	Time: 9:25	Time: 9:30	Time: 11:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns
Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-13
				Date: 5/4/2011	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 3/13/2014
				Time: 15:20	Time: 8:57	Time: 9:35	Time: 9:25	Time: 9:30	Time: 10:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ND (<50)	ND (<50)	ND (<9.81)
Heavy Oil	100	64	500	ns	ns	ns	ND (<100)	1,190	217
Diesel Range Organics	50	38.4	500	ns	ns	ns	135	425	269
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-13
				Date: 5/4/2011	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 3/13/2014
				Time: 15:20	Time: 8:57	Time: 9:35	Time: 9:25	Time: 9:30	Time: 10:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ns	ND (<50)	ND (<50)	25.6
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	82.2	98.8	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.



Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods

Gasoline range petroleum hydrocarbons by HDIC									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-13	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15
				Date: 3/13/2014	Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 5/5/2011	Date: 7/19/2012
				Time: 10:45	Time: 11:00	Time: 10:00	Time: 14:35	Time: 12:10	Time: 10:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns

Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-13	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15
				Date: 3/13/2014	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012
				Time: 10:45	Time: 11:00	Time: 10:00	Time: 10:00	Time: 12:10	Time: 10:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ND (<10.8)	ND (<50)	ND (<50)	ND (<9.81)	ns	ns
Heavy Oil	100	64	500	194	ND (<100)	986	119	ns	ns
Diesel Range Organics	50	38.4	500	236	8,100	1,910	244	ns	

Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-13	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15
				Date: 3/13/2014	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012
				Time: 10:45	Time: 11:00	Time: 10:00	Time: 10:00	Time: 12:10	Time: 10:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
Comments:				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ns	ND (<50)	ND (<0.500)	ns	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	862	98.2	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods

Gasoline range petroleum hydrocarbons by HDIC									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17
				Date: 5/5/2011	Date: 7/18/2012	Date: 2/14/2013	Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013
				Time: 13:20	Time: 10:00	Time: 11:15	Time: 14:30	Time: 11:10	Time: 15:15
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns	ns
Diesel range petroleum hydrocarbons by NWTPH-Dx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-16	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17
				Date: 5/5/2011	Date: 7/17/2012	Date: 7/17/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012
				Time: 13:20	Time: 14:05	Time: 14:05	Time: 14:30	Time: 11:10	Time: 11:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ND (<50)	ND (<9.81)	ns	ND (<50)	ND (<9.81)
Heavy Oil	100	64	500	ns	ND (<100)	72.5	ns	1,420	389
Diesel Range Organics	50	38.4	500			52.3	ns	172	394
Gasoline range petroleum hydrocarbons by NWTPH-Gx									
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-16	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17
				Date: 5/5/2011	Date: 7/17/2012	Date: 7/17/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012
				Time: 13:20	Time: 14:05	Time: 14:05	Time: 14:30	Time: 11:10	Time: 11:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ns	ND (<50)	32.8 (J)	ns	ND (<50)	ND (<0.500)
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns	138

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 28. Laboratory Data for Water Hydrocarbons by NWTPH Methods**

<b>Gasoline range petroleum hydrocarbons by HDIC</b>								
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: VOC Water TB
				Date: 7/18/2012	Date: 2/14/2013	Date: 7/18/2012	Date: 2/14/2013	Date: 4/26/2011
				Time: 12:45	Time: 15:25	Time: 13:00	Time: 16:00	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ns	ns	ns	ns	ns
Gasoline	100	64	500	ns	ns	ns	ns	ns
<b>Diesel range petroleum hydrocarbons by NWTPH-Dx</b>								
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: VOC Water TB
				Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012	Date: 4/26/2011
				Time: 12:45	Time: 12:45	Time: 13:00	Time: 13:00	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:
Diesel (Fuel Oil)	50	38.4	500	ND (<50)	ND (<9.81)	ND (<50)	22.9 (J)	ns
Heavy Oil	100	64	500	125	ND (<64.0)	ND (<100)	ND (<64.0)	ns
Diesel Range Organics	50	38.4	500	310	119			ns
<b>Gasoline range petroleum hydrocarbons by NWTPH-Gx</b>								
Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: VOC Water TB
				Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012	Date: 7/18/2012	Date: 4/26/2011
				Time: 12:45	Time: 12:45	Time: 13:00	Time: 13:00	Time:
				Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:
Gasoline	50	8.1	1000	ND (<50)	2.17 (J)	ND (<50)	4.51 (J)	ns
Gasoline (benzene present)	50	8.1	800	ns	ns	ns	ns	ns
Gasoline Range Organics	50	8.1	1000/800	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-1	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-3
				Date: 5/2/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 5/3/2011	Date: 7/17/2012
				Time: 14:10	Time: 9:03	Time: 8:30	Time: 9:35	Time: 9:30	Time: 9:30	Time: 10:06
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	0.1	<b>ND (&lt;0.200)</b>	ns	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-4	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-7
				Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/3/2011	Date: 7/17/2012	Date: 5/4/2011
				Time: 10:35	Time: 12:50	Time: 11:03	Time: 12:55	Time: 13:40	Time: 11:40	Time: 11:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Aroclor 1221	0.1	0.043	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Aroclor 1232	0.1	0.008	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Aroclor 1242	0.1	0.067	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Aroclor 1248	0.1	0.044	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Aroclor 1254	0.1	0.088	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	0.781 H
Aroclor 1260	0.1	0.051	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	<b>ND (&lt;0.200) H</b>
Total PCBs	0.1	0.088	0.1	ns	ns	<b>ND (&lt;0.200)</b>	<b>ND (&lt;0.0160)</b>	ns	ns	0.781 H

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelin

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-10
				Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012	Date: 5/4/2011	Date: 7/17/2012	Date: 5/3/2011
				Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30	Time: 10:10	Time: 14:05	Time: 14:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0106)	ns	ns	ns	ns	ns
Aroclor 1221	0.1	0.043	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	ns	ns	ns	ns
Aroclor 1232	0.1	0.008	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	ns	ns	ns	ns
Aroclor 1242	0.1	0.067	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	ns	ns	ns	ns
Aroclor 1248	0.1	0.044	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0101)	ns	ns	ns	ns	ns
Aroclor 1254	0.1	0.088	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0136)	ns	ns	ns	ns	ns
Aroclor 1260	0.1	0.051	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0154)	ns	ns	ns	ns	ns
Total PCBs	0.1	0.088	0.1	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	ns	ns	ns	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelin

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-10	Sample ID: TC-MW-11	Sample ID: TC-MW-11	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-13
				Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012	Date: 2/14/2013	Date: 5/5/2011
				Time: 11:40	Time: 13:50	Time: 12:10	Time: 15:20	Time: 8:57	Time: 13:25	Time: 9:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns
Aroclor 1221	0.1	0.043	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns
Aroclor 1232	0.1	0.008	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns
Aroclor 1242	0.1	0.067	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns
Aroclor 1248	0.1	0.044	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0101)	ns
Aroclor 1254	0.1	0.088	0.1	ns	ns	ns	1.23 H	<b>ND (&lt;0.200)</b>	ND (<0.0136)	ns
Aroclor 1260	0.1	0.051	0.1	ns	ns	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0154)	ns
Total PCBs	0.1	0.088	0.1	ns	ns	ns	1.23 H	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelin

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15
				Date: 7/19/2012	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 5/5/2011	Date: 7/19/2012
				Time: 9:25	Time: 9:30	Time: 11:00	Time: 10:00	Time: 14:35	Time: 12:10	Time: 10:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1221	0.1	0.043	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1232	0.1	0.008	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1242	0.1	0.067	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1248	0.1	0.044	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0101)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1254	0.1	0.088	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0136)	ns	<b>ND (&lt;0.200)</b>
Aroclor 1260	0.1	0.051	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0154)	ns	<b>ND (&lt;0.200)</b>
Total PCBs	0.1	0.088	0.1	ns	ns	ns	<b>ND (&lt;0.200)</b>	ND (<0.0160)	ns	<b>ND (&lt;0.200)</b>

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelin



**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-15	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-18
				Date: 2/13/2013	Date: 5/4/2011	Date: 7/18/2012	Date: 5/4/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 7/18/2012
				Time: 15:45	Time: 13:20	Time: 10:00	Time: 14:30	Time: 11:10	Time: 15:15	Time: 12:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	ND (<0.0160)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	<b>ND (&lt;0.200)</b>
Aroclor 1221	0.1	0.043	0.1	ND (<0.0160)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	<b>ND (&lt;0.200)</b>
Aroclor 1232	0.1	0.008	0.1	ND (<0.0160)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	<b>ND (&lt;0.200)</b>
Aroclor 1242	0.1	0.067	0.1	ND (<0.0160)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0160)	<b>ND (&lt;0.200)</b>
Aroclor 1248	0.1	0.044	0.1	ND (<0.0101)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0101)	<b>ND (&lt;0.200)</b>
Aroclor 1254	0.1	0.088	0.1	ND (<0.0136)	<b>ND (&lt;0.200) H</b>	ns	0.437 H	<b>ND (&lt;0.200)</b>	ND (<0.0136)	<b>ND (&lt;0.200)</b>
Aroclor 1260	0.1	0.051	0.1	ND (<0.0154)	<b>ND (&lt;0.200) H</b>	ns	<b>ND (&lt;0.200) H</b>	<b>ND (&lt;0.200)</b>	ND (<0.0154)	<b>ND (&lt;0.200)</b>
Total PCBs	0.1	0.088	0.1	ND (<0.0160)	<b>ND (&lt;0.200) H</b>	ns	0.437 H	<b>ND (&lt;0.200)</b>	ND (<0.0160)	<b>ND (&lt;0.200)</b>

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of prelin

**Table 29. Laboratory Data for Water Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19
				Date: 2/14/2013	Date: 7/18/2012	Date: 2/14/2013
				Time: 15:25	Time: 13:00	Time: 16:00
				Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:
Aroclor 1016	0.1	0.051	0.1	ND (<0.0160)	<b>ND (&lt;0.200)</b>	ND (<0.0160)
Aroclor 1221	0.1	0.043	0.1	ND (<0.0160)	<b>ND (&lt;0.200)</b>	ND (<0.0160)
Aroclor 1232	0.1	0.008	0.1	ND (<0.0160)	<b>ND (&lt;0.200)</b>	ND (<0.0160)
Aroclor 1242	0.1	0.067	0.1	ND (<0.0160)	<b>ND (&lt;0.200)</b>	ND (<0.0160)
Aroclor 1248	0.1	0.044	0.1	ND (<0.0101)	<b>ND (&lt;0.200)</b>	ND (<0.0101)
Aroclor 1254	0.1	0.088	0.1	ND (<0.0136)	<b>ND (&lt;0.200)</b>	ND (<0.0136)
Aroclor 1260	0.1	0.051	0.1	ND (<0.0154)	<b>ND (&lt;0.200)</b>	ND (<0.0154)
Total PCBs	0.1	0.088	0.1	ND (<0.0160)	<b>ND (&lt;0.200)</b>	ND (<0.0160)

**Notes:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detec

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of prelin

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: GW Equip blank	Sample ID: TC-MW-1	Sample ID: TC-MW-1
				Date: 5/5/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 7/19/2012	Date: 5/2/2011	Date: 7/17/2012
				Time: 16:50	Time: 15:45	Time: 10:10	Time: 12:30	Time: 14:10	Time: 9:03
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Antimony - Total				ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	0.247	ns
Arsenic - Dissolved	1.0	0.187	5.00	ND (<1.00)	1.37	ND (<1.00)	ND (<1.00)	ND (<1.00)	4.64
Arsenic - Total				ND (<1.00)	3.19	ND (<1.00)	ns	ND (<1.00)	ns
Beryllium - Dissolved	0.2	0.043	273.00	ND (<0.200)	2.77	0.532	ns	10.0	ns
Beryllium - Total				0.284	3.32	2.03	ns	3.38	ns
Cadmium - Dissolved	0.2	0.043	8.80	ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Cadmium - Total				ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	4.4	1.35	ND (<0.500)	ns	23.4	ns
Chromium III - Total				5.14	2.15	0.868	ns	9.99	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ND (<0.0500)	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	ND (<0.500)	4.57	1.95	0.511	3.16	2.49
Copper - Total				ND (<0.500)	1.58	1.13	ns	12.2	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ND (<0.100)	ND (<0.100)	ND (<0.100)	ns	ND (<0.100)	ns
Mercury - Total				ND (<0.100)	ND (<0.100)	ND (<0.100)	ns	ND (<0.100)	ns
Nickel - Dissolved	0.5	0.076	8.20	ND (<0.500)	ND (<0.500)	ND (<0.500)	ns	1.95	ns
Nickel - Total				ND (<0.500)	ND (<0.500)	ND (<0.500)	ns	7.28	ns
Selenium - Dissolved	1.0	0.741	71.00	ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ns
Selenium - Total				ND (<1.00)	ND (<1.00)	ND (<1.00)	ns	ND (<1.00)	ns
Silver - Dissolved	0.2	0.007	25,926.00	ND (<0.200)	0.252	ND (<0.200)	ns	ND (<0.200)	ns
Silver - Total				ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Thallium - Dissolved	0.2	0.006	0.50	ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Thallium - Total				ND (<0.200)	ND (<0.200)	ND (<0.200)	ns	ND (<0.200)	ns
Zinc - Dissolved	1.5	0.228	81.00	1.86	2.58	ND (<1.50)	ns	2.7	ns
Zinc - Total				4.51	7.16	3.62	ns	26.5	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-1	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3	Sample ID: TC-MW-3
				Date: 2/14/2013	Date: 5/3/2011	Date: 7/17/2012	Date: 2/14/2013	Date: 5/3/2011	Date: 7/17/2012
				Time: 12:10	Time: 8:30	Time: 9:35	Time: 12:35	Time: 9:30	Time: 10:06
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	ns	ns	ND (<0.200)	ns
Antimony - Total				ns	ns	ns	ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	2.56	ns	42.7	30.4	ND (<1.00)	33.4
Arsenic - Total				ns	ns	ns	ns	ns	
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	ns	ns	13	ns
Beryllium - Total				ns	ns	ns	ns	ns	
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ns	ns	ND (<0.200)	ns
Cadmium - Total				ns	ns	ns	ns	ns	
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	ns	ns	24.6	ns
Chromium III - Total				ns	ns	ns	ns	ns	
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ND (<0.0500)	ns	ns	ND (<0.0500)	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	
Chromium VI - Total 2				ns	ns	ns	ns	ns	
Copper - Dissolved	0.5	0.072	2.40	3.13	ns	ND (<0.500)	1.58	3.34	0.668
Copper - Total				ns	ns	ns	ns	ns	
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ns	ns	ND (<0.100)	ns
Mercury - Total				ns	ns	ns	ns	ns	
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	ns	ns	1.83	ns
Nickel - Total				ns	ns	ns	ns	ns	
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ns	ns	ND (<1.00)	ns
Selenium - Total				ns	ns	ns	ns	ns	
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ns	ns	ND (<0.200)	ns
Silver - Total				ns	ns	ns	ns	ns	
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ns	ns	ND (<0.200)	ns
Thallium - Total				ns	ns	ns	ns	ns	
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	ns	ns	ND (<1.50)	ns
Zinc - Total				ns	ns	ns	ns	ns	

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-3	Sample ID: TC-MW-4	Sample ID: TC-MW-4	Sample ID: TC-MW-4	Sample ID: TC-MW-5
				Date: 5/3/2011	Date: 2/15/2013	Date: 5/3/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/3/2011
				Time: 9:30	Time: 12:05	Time: 12:50	Time: 10:35	Time: 12:33	Time: 11:50
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Antimony - Total				ns	ns	ns	ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	ND (<1.00)	30.5	ns	ND (<1.00)	ND (<0.266)	ND (<1.00)
Arsenic - Total				ns	ns	ns	ns	ns	
Beryllium - Dissolved	0.2	0.043	273.00	8.08	ns	ns	ns	ns	7.36
Beryllium - Total				ns	ns	ns	ns	ns	
Cadmium - Dissolved	0.2	0.043	8.80	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Cadmium - Total				ns	ns	ns	ns	ns	
Chromium III - Dissolved	0.5	0.114	243,055.00	17.9	ns	ns	ns	ns	22.4
Chromium III - Total				ns	ns	ns	ns	ns	
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ND (<0.0500)	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	
Chromium VI - Total 2				ns	ns	ns	ns	ns	
Copper - Dissolved	0.5	0.072	2.40	3.2	1.97	ns	ND (<0.500)	9.81	6.72
Copper - Total				ns	ns	ns	ns	ns	
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ND (<0.100)	ns	ns	ns	ns	ND (<0.100)
Mercury - Total				ns	ns	ns	ns	ns	
Nickel - Dissolved	0.5	0.076	8.20	2.08	ns	ns	ns	ns	1.57
Nickel - Total				ns	ns	ns	ns	ns	
Selenium - Dissolved	1.0	0.741	71.00	ND (<1.00)	ns	ns	ns	ns	ND (<1.00)
Selenium - Total				ns	ns	ns	ns	ns	
Silver - Dissolved	0.2	0.007	25,926.00	0.346	ns	ns	ns	ns	0.270
Silver - Total				ns	ns	ns	ns	ns	
Thallium - Dissolved	0.2	0.006	0.50	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Thallium - Total				ns	ns	ns	ns	ns	
Zinc - Dissolved	1.5	0.228	81.00	5.94	ns	ns	ns	ns	6.45
Zinc - Total				ns	ns	ns	ns	ns	

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-7
				Date: 7/17/2012	Date: 2/15/2013	Date: 5/3/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011
				Time: 11:03	Time: 12:55	Time: 13:40	Time: 11:40	Time: 13:25	Time: 11:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	ND (<0.200)	ns	ns	0.239
Antimony - Total				ns	ns	ns	ns	ns	0.301
Arsenic - Dissolved	1.0	0.187	5.00	5.20	6.79	11.1	31.5	23.2	ND (<1.00)
Arsenic - Total				ns	ns	ns	ns	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	2.94	ns	ns	6.8
Beryllium - Total				ns	ns	ns	ns	ns	3.32
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Cadmium - Total				ns	ns	ns	ns	ns	ND (<0.200)
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	7.25	ns	ns	16.2
Chromium III - Total				ns	ns	ns	ns	ns	2.86
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	2.08	0.847	2.64	ND (<0.500)	4.36	8.22
Copper - Total				ns	ns	ns	ns	ns	9.15
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Mercury - Total				ns	ns	ns	ns	ns	ND (<0.100)
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	1.01	ns	ns	0.972
Nickel - Total				ns	ns	ns	ns	ns	2.38
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Selenium - Total				ns	ns	ns	ns	ns	ND (<1.00)
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	0.27	ns	ns	ND (<0.200)
Silver - Total				ns	ns	ns	ns	ns	ND (<0.200)
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Total				ns	ns	ns	ns	ns	ND (<0.200)
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	3.91	ns	ns	2
Zinc - Total				ns	ns	ns	ns	ns	263

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8	Sample ID: TC-MW-8	Sample ID: TC-MW-9
				Date: 7/7/2012	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011
				Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30	Time: 14:40	Time: 10:10
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Antimony - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Arsenic - Dissolved	1.0	0.187	5.00	14.4	20.8	ND (<1.00)	2.03	ND (<0.266)	ND (<1.00)
Arsenic - Total				ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	11.7	ns	ns	8.83
Beryllium - Total				ns	ns	8.24	ns	ns	5.08
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Cadmium - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	27.8	ns	ns	23.5
Chromium III - Total				ns	ns	6.07	ns	ns	3.01
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	1.54	0.499	16.2	1.72	0.511	27
Copper - Total				ns	ns	66.3	ns	ns	32.5
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Mercury - Total				ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	2.04	ns	ns	1.45
Nickel - Total				ns	ns	6.58	ns	ns	2.92
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Selenium - Total				ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Silver - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Zinc - Dissolved	1.5	0.228	81.00	3.48	3.48	5.55	ns	ns	2.03
Zinc - Total				ns	ns	9.83	ns	ns	6.78

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9	Sample ID: TC-MW-9	Sample ID: TC-MW-9R	Sample ID: TC-MW-10	Sample ID: TC-MW-10	Sample ID: TC-MW-10
				Date: 7/17/2012	Date: 2/14/2013	Date: 3/13/2014	Date: 5/3/2011	Date: 7/19/2012	Date: 2/14/2013
				Time: 14:05	Time: 14:50	Time: 11:55	Time: 14:40	Time: 11:40	Time: 14:18
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	ns	0.673	ns	ns
Antimony - Total				ns	ns	ns	ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	1.71	ND (<0.266)	2.59	ND (<1.00)	1.50	ND (<0.266)
Arsenic - Total				ns	ns	ns	ns	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	ns	10.4	ns	ns
Beryllium - Total				ns	ns	ns	ns	ns	ns
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ns	ND (<0.200)	ns	ns
Cadmium - Total				ns	ns	ns	ns	ns	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	ns	24.7	ns	ns
Chromium III - Total				ns	ns	ns	ns	ns	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	1.64	1.01	0.292	20.8	3.09	1.21
Copper - Total				ns	ns	ns	ns	ns	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ns	ND (<0.100)	ns	ns
Mercury - Total				ns	ns	ns	ns	ns	ns
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	ns	2.82	ns	ns
Nickel - Total				ns	ns	ns	ns	ns	ns
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ns	ND (<1.00)	ns	ns
Selenium - Total				ns	ns	ns	ns	ns	ns
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ns	ND (<0.200)	ns	ns
Silver - Total				ns	ns	ns	ns	ns	ns
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ns	ND (<0.200)	ns	ns
Thallium - Total				ns	ns	ns	ns	ns	ns
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	ns	5.02	ns	ns
Zinc - Total				ns	ns	ns	ns	ns	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr



**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-11	Sample ID: TC-MW-11	Sample ID: TC-MW-11	Sample ID: TC-MW-12	Sample ID: TC-MW-12	Sample ID: TC-MW-12
				Date: 5/4/2011	Date: 7/19/2012	Date: 2/14/2013	Date: 5/4/2011	Date: 7/19/2012	Date: 2/14/2013
				Time: 13:50	Time: 12:10	Time: 13:53	Time: 15:20	Time: 8:57	Time: 13:25
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	0.417	ns	ns	0.67	ns	ns
Antimony - Total				0.351	ns	ns	0.716	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	ND (<1.00)	7.80	5.26	11.8	81.7	77.5
Arsenic - Total				ND (<1.00)	ns	ns	17.7	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	14.8	ns	ns	12.5	ns	ns
Beryllium - Total				4.94	ns	ns	5.94	ns	ns
Cadmium - Dissolved	0.2	0.043	8.80	ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Cadmium - Total				ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	35.8	ns	ns	21.5	ns	ns
Chromium III - Total				2.73	ns	ns	3.66	ns	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	24	1.81	0.945	6.12	1.89	1.26
Copper - Total				60.8	ns	ns	12.6	ns	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ND (<0.100)	ns	ns	ND (<0.100)	ns	ns
Mercury - Total				ND (<0.100)	ns	ns	ND (<0.100)	ns	ns
Nickel - Dissolved	0.5	0.076	8.20	5.29	ns	ns	2.47	ns	ns
Nickel - Total				7.58	ns	ns	5.58	ns	ns
Selenium - Dissolved	1.0	0.741	71.00	ND (<1.00)	ns	ns	ND (<1.00)	ns	ns
Selenium - Total				ND (<1.00)	ns	ns	ND (<1.00)	ns	ns
Silver - Dissolved	0.2	0.007	25,926.00	ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Silver - Total				ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Thallium - Dissolved	0.2	0.006	0.50	ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Thallium - Total				ND (<0.200)	ns	ns	ND (<0.200)	ns	ns
Zinc - Dissolved	1.5	0.228	81.00	6.49	ns	ns	3.97	ns	ns
Zinc - Total				14.2	ns	ns	12.9	ns	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: TC-MW-14
				Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 2/14/2013	Date: 3/13/2014	Date: 5/5/2011
				Time: 9:35	Time: 9:25	Time: 9:30	Time: 11:40	Time: 10:45	Time: 11:00
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	0.255	ns	ns	ns	ns	0.535
Antimony - Total				0.505	ns	ns	ns	ns	1
Arsenic - Dissolved	1.0	0.187	5.00	ND (<1.00)	2.14	1.78	4.71	ns	ND (<1.00)
Arsenic - Total				ND (<1.00)	ns	ns	ns	ns	ND (<1.00)
Beryllium - Dissolved	0.2	0.043	273.00	8.2	ns	ns	ns	ns	14
Beryllium - Total				2.69	ns	ns	ns	ns	5.66
Cadmium - Dissolved	0.2	0.043	8.80	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Cadmium - Total				ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Chromium III - Dissolved	0.5	0.114	243,055.00	15.5	ns	ns	ns	ns	31.2
Chromium III - Total				7.14	ns	ns	ns	ns	14
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	3.46	2.34	1.81	1.02	ns	7.04
Copper - Total				4.62	ns	ns	ns	ns	11.9
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury - Dissolved	0.3	0.010	0.30	ND (<0.100)	ns	ns	ns	ns	ND (<0.100)
Mercury - Total				ND (<0.100)	ns	ns	ns	ns	ND (<0.100)
Nickel - Dissolved	0.5	0.076	8.20	1.38	ns	ns	ns	ns	24.2
Nickel - Total				2.04	ns	ns	ns	ns	4.71
Selenium - Dissolved	1.0	0.741	71.00	ND (<1.00)	ns	ns	ns	ns	ND (<1.00)
Selenium - Total				ND (<1.00)	ns	ns	ns	ns	ND (<1.00)
Silver - Dissolved	0.2	0.007	25,926.00	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Silver - Total				ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Thallium - Dissolved	0.2	0.006	0.50	ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Thallium - Total				ND (<0.200)	ns	ns	ns	ns	ND (<0.200)
Zinc - Dissolved	1.5	0.228	81.00	2.72	ns	ns	ns	ns	6.62
Zinc - Total				6.5	ns	ns	ns	ns	26.5

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-14	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15	Sample ID: TC-MW-15	Sample ID: TC-MW-16
				Date: 7/19/2012	Date: 2/13/2013	Date: 5/5/2011	Date: 7/19/2012	2/13/2013	Date: 5/5/2011
				Time: 10:00	Time: 14:35	Time: 12:10	Time: 10:35	Time: 15:45	Time: 13:20
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	0.281	ns	ns	ND (<0.200)
Antimony - Total				ns	ns	0.569	ns	ns	ND (<0.200)
Arsenic - Dissolved	1.0	0.187	5.00	2.60	0.743	ND (<1.00)	60.8	61.9	65.6
Arsenic - Total				ns	ns	ND (<1.00)	ns	ns	99.4
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	6.62	ns	ns	5.35
Beryllium - Total				ns	ns	4.07	ns	ns	3.71
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Cadmium - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	22.1	ns	ns	10.8
Chromium III - Total				ns	ns	25.3	ns	ns	7.76
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	1.72	1.41	6.15	0.790	7.73	4.49
Copper - Total				ns	ns	10.9	ns	ns	7.89
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Mercury - Total				ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Nickel - Dissolved	0.5	0.076	8.20	3.87	ns	2.32	ns	ns	ND (<0.500)
Nickel - Total				ns	ns	4.08	ns	ns	1.48
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Selenium - Total				ns	ns	ND (<1.00)	ns	ns	ND (<1.00)
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Silver - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Total				ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	6.04	ns	ns	2.22
Zinc - Total				ns	ns	15.8	ns	ns	5.94

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-18
				Date: 7/18/2012	Date: 2/14/2013	Date: 5/5/2011	Date: 7/19/2012	Date: 2/13/2013	Date: 7/18/2012
				Time: 10:00	Time: 11:15	Time: 14:30	Time: 11:10	Time: 15:15	Time: 12:45
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	0.746	ns	ns	0.765
Antimony - Total				ns	ns	1.87	ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	121	82.3	ND (<1.00)	6.39	9.15	6.49
Arsenic - Total				ns	ns	ND (<1.00)	ns	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	6.48	ns	ns	ND (<0.200)
Beryllium - Total				ns	ns	3.43	ns	ns	ns
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Cadmium - Total				ns	ns	ND (<0.200)	ns	ns	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	21.6	ns	ns	9.56
Chromium III - Total				ns	ns	11.8	ns	ns	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ND (<0.0500)	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	ND (<0.500)	11.2	3.67	1.87	3.73	3.06
Copper - Total				ns	ns	9.82	ns	ns	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ND (<0.100)	ns	ns	ND (<0.100)
Mercury - Total				ns	ns	ND (<0.100)	ns	ns	ns
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	2.57	ns	ns	3.66
Nickel - Total				ns	ns	4.27	ns	ns	ns
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ND (<1.00)	ns	ns	3.18
Selenium - Total				ns	ns	ND (<1.00)	ns	ns	ns
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Silver - Total				ns	ns	ND (<0.200)	ns	ns	ns
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ND (<0.200)	ns	ns	ND (<0.200)
Thallium - Total				ns	ns	ND (<0.200)	ns	ns	ns
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	ND (<1.50)	ns	ns	5.64
Zinc - Total				ns	ns	19.6	ns	ns	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: TC-MW-19	Sample ID: TC-MW-20	Sample ID: TC-MW-21
				Date: 2/14/2013	Date: 7/18/2012	Date: 2/14/2013	Date: 3/13/2014	Date: 3/13/2014	Date: 3/13/2014
				Time: 15:25	Time: 13:00	Time: 16:00	Time: 14:35	Time: 15:40	Time: 13:23
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	0.512	ns	ns	ns	ns
Antimony - Total				ns	ns	ns	ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	4.43	425	271	281	35.5	8.83
Arsenic - Total				ns	ns	ns	ns	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	ns	ND (<0.200)	ns	ns	ns	ns
Beryllium - Total				ns	ns	ns	ns	ns	ns
Cadmium - Dissolved	0.2	0.043	8.80	ns	ND (<0.200)	ns	ns	ns	ns
Cadmium - Total				ns	ns	ns	ns	ns	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	4.57	ns	ns	ns	ns
Chromium III - Total				ns	ns	ns	ns	ns	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns	ns	ns	ns
Chromium VI - Total 2				ns	ns	ns	ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	1.4	2.07	0.782	ns	ND (<0.117)	1.31
Copper - Total				ns	ns	ns	ns	ns	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	0.151	ns	ns	ns	ns
Mercury - Total				ns	ns	ns	ns	ns	ns
Nickel - Dissolved	0.5	0.076	8.20	ns	4.37	ns	ns	ns	ns
Nickel - Total				ns	ns	ns	ns	ns	ns
Selenium - Dissolved	1.0	0.741	71.00	ns	3.12	ns	ns	ns	ns
Selenium - Total				ns	ns	ns	ns	ns	ns
Silver - Dissolved	0.2	0.007	25,926.00	ns	0.486	ns	ns	ns	ns
Silver - Total				ns	ns	ns	ns	ns	ns
Thallium - Dissolved	0.2	0.006	0.50	ns	ND (<0.200)	ns	ns	ns	ns
Thallium - Total				ns	ns	ns	ns	ns	ns
Zinc - Dissolved	1.5	0.228	81.00	ns	4.66	ns	ns	ns	ns
Zinc - Total				ns	ns	ns	ns	ns	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 30. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: FIELD DUPLICATE TC-02	Sample ID: FIELD DUPLICATE TC-03	Sample ID: TC-SB-24
				Date: 3/13/2013	Date: 3/13/2013	Date: 3/13/2014
				Time: 13:24	Time: 12:00	Time: 12:00
				Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:
Antimony - Dissolved	0.2	0.008	640.00	ns	ns	ns
Antimony - Total				ns	ns	ns
Arsenic - Dissolved	1.0	0.187	5.00	37.5	9.01	2.82
Arsenic - Total				ns	ns	ns
Beryllium - Dissolved	0.2	0.043	273.00	ns	ns	ns
Beryllium - Total				ns	ns	ns
Cadmium - Dissolved	0.2	0.043	8.80	ns	ns	ns
Cadmium - Total				ns	ns	ns
Chromium III - Dissolved	0.5	0.114	243,055.00	ns	ns	ns
Chromium III - Total				ns	ns	ns
Chromium VI - Dissolved	0.5	0.200	50.00	ns	ns	ns
Chromium VI - Total 1				ns	ns	ns
Chromium VI - Total 2				ns	ns	ns
Copper - Dissolved	0.5	0.072	2.40	6.02	0.144	ND (<0.117)
Copper - Total				ns	ns	ns
Iron / 57 - Dissolved	100	9.551	--	ns	ns	ns
Mercury -Dissolved	0.3	0.010	0.30	ns	ns	ns
Mercury - Total				ns	ns	ns
Nickel - Dissolved	0.5	0.076	8.20	ns	ns	ns
Nickel - Total				ns	ns	ns
Selenium - Dissolved	1.0	0.741	71.00	ns	ns	ns
Selenium - Total				ns	ns	ns
Silver - Dissolved	0.2	0.007	25,926.00	ns	ns	ns
Silver - Total				ns	ns	ns
Thallium - Dissolved	0.2	0.006	0.50	ns	ns	ns
Thallium - Total				ns	ns	ns
Zinc - Dissolved	1.5	0.228	81.00	ns	ns	ns
Zinc - Total				ns	ns	ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary scr

**Table 31. Laboratory Data for Water  
Metals in water by EPA Method 6020/200.8 Centrifuge**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-1
				Date: 5/2/2011
				Time: 14:10
				Depth:
				Comments:
Antimony - Dissolved	0.2	0.008	640.00*	ns
Antimony - Total				0.244
Arsenic - Dissolved	1.0	0.187	5*	ns
Arsenic - Total				ND (<1.00)
Beryllium - Dissolved	0.2	0.043	273.00*	ns
Beryllium - Total				5.42
Cadmium - Dissolved	0.2	0.043	8.80	ns
Cadmium - Total				ND (<0.2)
Chromium III - Dissolved	0.5	0.114	243,055.00*	ns
Chromium III - Total				9.99
Copper - Dissolved	0.5	0.072	2.40*	ns
Copper - Total				10.7
Nickel - Dissolved	0.5	0.076	8.20*	ns
Nickel - Total				4.86
Selenium - Dissolved	1.0	0.741	71.00	ns
Selenium - Total				ND (<1.00)
Silver - Dissolved	0.2	0.007	25,926.00*	ns
Silver - Total				ND (<0.2)
Thallium - Dissolved	0.2	0.006	0.50	ns
Thallium - Total				ND (<0.2)
Zinc - Dissolved	1.5	0.228	81.00*	ns
Zinc - Total				ns
Mercury - Dissolved	0.3	0.010	0.30	ns
Mercury - Total				ns

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening level.

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: Rinsate	Sample ID: Rinsate 1	Sample ID: Rinsate 2	Sample ID: Rinsate 3	Sample ID: TC-MW-1	Sample ID: TC-MW-1
				Date: 5/5/2011	Date: 4/26/2011	Date: 4/27/2011	Date: 4/29/2011	Date: 5/2/2011	Date: 7/17/2012
				Time: 16:50	Time: 13:15	Time: 15:45	Time: 10:10	Time: 14:10	Time: 9:03
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)
Acenaphthylene	0.5	0.017	0.5	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	ND (<0.1)
Anthracene	0.5	0.026	25,925.9	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)
Benzo [a] anthracene	0.1	0.027	0.3	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	ND (<0.1)
benzo [a] pyrene	0.1	0.016	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	ND (<0.1)
benzo [k] fluoranthene	0.1	0.026	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
Chrysene	0.1	0.013	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
Fluoranthene	0.5	0.022	90.2	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)
Fluorene	0.5	0.016	3,456.8	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.1)</b>
Naphthalene	0.1	0.004	4,938.0	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)
Phenanthrene	0.5	0.016	0.5	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.500)</b>	0.101
Pyrene	0.5	0.006	2,592.6	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.500)	ND (<0.1)

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of preliminary screening



**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-2	Sample ID: TC-MW-2	Sample ID: TC-MW-3	Sample ID: TC-MW-3	Sample ID: DUP of TC-MW-3	Sample ID: TC-MW-4
				Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012
				Time: 8:30	Time: 9:35	Time: 9:30	Time: 10:06	Time: 9:30	Time: 10:35
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	0.230
Acenaphthylene	0.5	0.017	0.5	ns	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
Anthracene	0.5	0.026	25,925.9	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Benzo [a] anthracene	0.1	0.027	0.3	ns	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
benzo [a] pyrene	0.1	0.016	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	ns	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
benzo [k] fluoranthene	0.1	0.026	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Chrysene	0.1	0.013	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Fluoranthene	0.5	0.022	90.2	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Fluorene	0.5	0.016	3,456.8	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Indeno [ 1,2,3-cd] pyrene	0.1	0.015	0.1	ns	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Naphthalene	0.1	0.004	4,938.0	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Phenanthrene	0.5	0.016	0.5	ns	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	0.115
Pyrene	0.5	0.006	2,592.6	ns	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-5	Sample ID: TC-MW-5	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-6	Sample ID: TC-MW-7
				Date: 5/3/2011	Date: 7/17/2012	Date: 5/3/2011	Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011
				Time: 12:50	Time: 11:03	Time: 13:40	Time: 11:40	Time: 13:25	Time: 11:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	1.54	1.41	ND (<0.500)	ND (<0.100)	0.0453	2.66
Acenaphthylene	0.5	0.017	0.5	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.0237)	<b>ND (&lt;0.500)</b>
Anthracene	0.5	0.026	25,925.9	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.00880)	0.636
Benzo [a] anthracene	0.1	0.027	0.3	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.0118)	1.53
benzo [a] pyrene	0.1	0.016	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.0238)	<b>ND (&lt;0.500)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.0202)	<b>ND (&lt;0.500)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.0260)	<b>ND (&lt;0.500)</b>
benzo [k] fluoranthene	0.1	0.026	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.0206)	<b>ND (&lt;0.500)</b>
Chrysene	0.1	0.013	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.00779)	<b>ND (&lt;0.500)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.500)</b>
Fluoranthene	0.5	0.022	90.2	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	0.0291	3.46
Fluorene	0.5	0.016	3,456.8	0.864	0.758	ND (<0.500)	ND (<0.100)	0.0379	1.52
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.500)</b>
Naphthalene	0.1	0.004	4,938.0	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	0.0572	ND (<0.500)
Phenanthrene	0.5	0.016	0.5	<b>ND (&lt;0.500)</b>	0.359	<b>ND (&lt;0.500)</b>	ND (<0.100)	0.0884	1.01
Pyrene	0.5	0.006	2,592.6	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	0.0222	3.22

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-7	Sample ID: TC-MW-7	Sample ID: TC-MW-8	Sample ID: TC-MW-8	Sample ID: TC-MW-9	Sample ID: TC-MW-9
				Date: 7/17/2012	Date: 2/15/2013	Date: 5/4/2011	Date: 7/17/2012	Date: 5/4/2011	Date: 7/17/2012
				Time: 13:05	Time: 13:55	Time: 12:40	Time: 12:30	Time: 10:10	Time: 14:05
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	3.26	2.27	0.62	1.45	ND (<0.500)	0.390
Acenaphthylene	0.5	0.017	0.5	ND (<0.100)	0.0429	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
Anthracene	0.5	0.026	25,925.9	0.396	0.42	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Benzo [a] anthracene	0.1	0.027	0.3	ND (<0.100)	0.0458	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
benzo [a] pyrene	0.1	0.016	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0238)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0202)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	ND (<0.100)	ND (<0.0260)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
benzo [k] fluoranthene	0.1	0.026	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0206)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Chrysene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	0.0248	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Fluoranthene	0.5	0.022	90.2	1.08	1.04	ND (<0.500)	0.114	ND (<0.500)	ND (<0.100)
Fluorene	0.5	0.016	3,456.8	2.01	1.67	ND (<0.500)	0.801	ND (<0.500)	0.111
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Naphthalene	0.1	0.004	4,938.0	ND (<0.100)	1.57	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)
Phenanthrene	0.5	0.016	0.5	3.57	2.71	<b>ND (&lt;0.500)</b>	0.232	<b>ND (&lt;0.500)</b>	ND (<0.100)
Pyrene	0.5	0.006	2,592.6	0.763	0.682	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-9R	Sample ID: TC-MW-10	Sample ID: TC-MW-10	Sample ID: TC-MW-11	Sample ID: TC-MW-11	Sample ID: TC-MW-12
				Date: 3/13/2014	Date: 5/3/2011	Date: 7/19/2012	Date: 5/4/2011	Date: 7/19/2012	Date: 5/4/2011
				Time: 11:55	Time: 14:40	Time: 11:40	Time: 13:50	Time: 12:10	Time: 15:20
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	0.297	1.01	0.483	0.901	3.40	ND (<0.500)
Acenaphthylene	0.5	0.017	0.5	ND (<0.000597)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
Anthracene	0.5	0.026	25,925.9	0.0138 (J)	ND (<0.500)	ND (<0.100)	ND (<0.500)	0.109	ND (<0.500)
Benzo [a] anthracene	0.1	0.027	0.3	0.0561 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
benzo [a] pyrene	0.1	0.016	0.1	ND (<0.00234)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	ND (<0.00234)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	0.0173 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
benzo [k] fluoranthene	0.1	0.026	0.1	ND (<0.00186)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Chrysene	0.1	0.013	0.1	0.0335 (J)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	0.0134 (J)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Fluoranthene	0.5	0.022	90.2	0.0325 (J)	ND (<0.500)	ND (<0.100)	ND (<0.500)	0.207	ND (<0.500)
Fluorene	0.5	0.016	3,456.8	0.106	ND (<0.500)	0.149	ND (<0.500)	1.24	ND (<0.500)
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	0.0155 (J)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Naphthalene	0.1	0.004	4,938.0	0.0587 (J)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)
Phenanthrene	0.5	0.016	0.5	0.0378 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	0.289	<b>ND (&lt;0.500)</b>
Pyrene	0.5	0.006	2,592.6	0.0344 (J)	ND (<0.500)	ND (<0.100)	ND (<0.500)	0.118	ND (<0.500)

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-12	Sample ID: TC-MW-13	Sample ID: TC-MW-13	Sample ID: DUP of TC-MW-13	Sample ID: TC-MW-14	Sample ID: TC-MW-14
				Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012	Date: 7/19/2012	Date: 5/5/2011	Date: 7/19/2012
				Time: 8:57	Time: 9:35	Time: 9:25	Time: 9:30	Time: 11:00	Time: 10:00
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	ND (<0.100)	0.532	0.470	0.479	1.45	0.904
Acenaphthylene	0.5	0.017	0.5	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
Anthracene	0.5	0.026	25,925.9	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.100)	1.85	0.162
Benzo [a] anthracene	0.1	0.027	0.3	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.100)	<b>ND (&lt;0.500)</b>	0.117
benzo [a] pyrene	0.1	0.016	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)
benzo [k] fluoranthene	0.1	0.026	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Chrysene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Fluoranthene	0.5	0.022	90.2	0.107	ND (<0.500)	ND (<0.100)	ND (<0.100)	0.718	0.527
Fluorene	0.5	0.016	3,456.8	ND (<0.100)	ND (<0.500)	0.245	0.249	0.868	0.845
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>
Naphthalene	0.1	0.004	4,938.0	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.100)	14.6	ND (<0.100)
Phenanthrene	0.5	0.016	0.5	ND (<0.100)	<b>ND (&lt;0.500)</b>	0.178	0.166	1.71	1.51
Pyrene	0.5	0.006	2,592.6	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.100)	0.621	0.408

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-14	Sample ID: TC-MW-15	Sample ID: TC-MW-15	Sample ID: TC-MW-16	Sample ID: TC-MW-16	Sample ID: TC-MW-17
				Date: 2/13/2013	Date: 5/5/2011	Date: 7/19/2012	Date: 5/5/2011	Date: 7/18/2012	Date: 5/5/2011
				Time: 14:35	Time: 12:10	Time: 10:35	Time: 13:20	Time: 10:00	Time: 14:30
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	0.557	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	2.42
Acenaphthylene	0.5	0.017	0.5	0.0384 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
Anthracene	0.5	0.026	25,925.9	0.0651 (J)	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	0.699
Benzo [a] anthracene	0.1	0.027	0.3	0.0488	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
benzo [a] pyrene	0.1	0.016	0.1	ND (<0.0238)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
benzo [b] fluoranthene	0.1	0.021	0.1	0.0343 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Benzo [g,h,i] perylene	0.5	0.015	0.5	ND (<0.0260)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>
benzo [k] fluoranthene	0.1	0.026	0.1	ND (<0.0206)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Chrysene	0.1	0.013	0.1	0.0415 (J)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Dibenzo [a,h] anthracene	0.1	0.013	0.1	ND (<0.0295)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Fluoranthene	0.5	0.022	90.2	0.225	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)
Fluorene	0.5	0.016	3,456.8	0.513	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	0.933
Indeno [ 1,2,3-cd] pyrene	0.1	0.015	0.1	ND (<0.0295)	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	<b>ND (&lt;0.100)</b>	<b>ND (&lt;0.500)</b>
Naphthalene	0.1	0.004	4,938.0	0.930	0.777	ND (<0.100)	ND (<0.500)	ND (<0.100)	8.06
Phenanthrene	0.5	0.016	0.5	0.860	<b>ND (&lt;0.500)</b>	ND (<0.100)	<b>ND (&lt;0.500)</b>	ND (<0.100)	0.655
Pyrene	0.5	0.006	2,592.6	0.174	ND (<0.500)	ND (<0.100)	ND (<0.500)	ND (<0.100)	ND (<0.500)

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-MW-17	Sample ID: TC-MW-17	Sample ID: TC-MW-18	Sample ID: TC-MW-18	Sample ID: TC-MW-19	Sample ID: TC-MW-20
				Date: 7/19/2012	Date: 2/13/2013	Date: 7/18/2012	Date: 2/14/2013	Date: 7/18/2012	Date: 3/13/2014
				Time: 11:10	Time: 15:15	Time: 12:45	Time: 15:25	Time: 13:00	Time: 15:40
				Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
				Comments:	Comments:	Comments:	Comments:	Comments:	Comments:
Acenaphthene	0.5	0.024	642.8	0.577	0.472	0.214	0.0503 (J)	ND (<0.100)	2.74
Acenaphthylene	0.5	0.017	0.5	ND (<0.100)	0.0302 (J)	ND (<0.100)	ND (<0.0237)	ND (<0.100)	ND (<0.000597)
Anthracene	0.5	0.026	25,925.9	ND (<0.100)	0.0481 (J)	ND (<0.100)	0.0203 (J)	ND (<0.100)	0.187
Benzo [a] anthracene	0.1	0.027	0.3	ND (<0.100)	ND (<0.0118)	ND (<0.100)	0.0476 (J)	ND (<0.100)	0.058 (J)
benzo [a] pyrene	0.1	0.016	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0238)	<b>ND (&lt;0.100)</b>	0.0343 (J)	<b>ND (&lt;0.100)</b>	ND (<0.00234)
benzo [b] fluoranthene	0.1	0.021	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0202)	<b>ND (&lt;0.100)</b>	0.0573 (J)	<b>ND (&lt;0.100)</b>	0.0101 (J)
Benzo [g,h,i] perylene	0.5	0.015	0.5	ND (<0.100)	ND (<0.0260)	ND (<0.100)	ND (<0.0260)	ND (<0.100)	ND (<0.00313)
benzo [k] fluoranthene	0.1	0.026	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0206)	<b>ND (&lt;0.100)</b>	0.0273 (J)	<b>ND (&lt;0.100)</b>	ND (<0.00186)
Chrysene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	ND (<0.00779)	<b>ND (&lt;0.100)</b>	0.0526 (J)	<b>ND (&lt;0.100)</b>	0.0354 (J)
Dibenzo [a,h] anthracene	0.1	0.013	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.100)</b>	ND (<0.00229)
Fluoranthene	0.5	0.022	90.2	ND (<0.100)	0.0578 (J)	0.396	0.167	ND (<0.100)	0.482
Fluorene	0.5	0.016	3,456.8	0.313	0.277	0.564	0.106	ND (<0.100)	1.93
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.100)</b>	ND (<0.0295)	<b>ND (&lt;0.100)</b>	ND (<0.00256)
Naphthalene	0.1	0.004	4,938.0	ND (<0.100)	5.03	1.83	0.413	0.300	8.27
Phenanthrene	0.5	0.016	0.5	0.150	0.149	0.964	0.206	ND (<0.100)	2.24
Pyrene	0.5	0.006	2,592.6	ND (<0.100)	0.0349 (J)	0.259	0.12	ND (<0.100)	0.258

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**ND** = Non-detection value of analyte in exceedance of preliminary screening

**Table 32. Laboratory Data for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Water MRL µg/L	Water MDL µg/L	Preliminary Screening Level (µg/L)*	Sample ID: TC-SB-24
				Date: 3/13/2014
				Time: 12:00
				Depth:
				Comments:
Acenaphthene	0.5	0.024	642.8	0.669
Acenaphthylene	0.5	0.017	0.5	0.0334 (J)
Anthracene	0.5	0.026	25,925.9	0.186
Benzo [a] anthracene	0.1	0.027	0.3	0.133
benzo [a] pyrene	0.1	0.016	0.1	0.0647 (J)
benzo [b] fluoranthene	0.1	0.021	0.1	0.0875 (J)
Benzo [g,h,i] perylene	0.5	0.015	0.5	0.835
benzo [k] fluoranthene	0.1	0.026	0.1	0.0424 (J)
Chrysene	0.1	0.013	0.1	0.114
Dibenzo [a,h] anthracene	0.1	0.013	0.1	0.0397 (J)
Fluoranthene	0.5	0.022	90.2	1.12
Fluorene	0.5	0.016	3,456.8	2.37
Indeno [1,2,3-cd] pyrene	0.1	0.015	0.1	0.0689 (J)
Naphthalene	0.1	0.004	4,938.0	2.45
Phenanthrene	0.5	0.016	0.5	2.94
Pyrene	0.5	0.006	2,592.6	1.21

**NOTES:**

All results expressed in micrograms per liter (µg/L)

\* based on April 1, 2011 updated CLARC value

MDL = Laboratory Method Detection Limit

MRL = Laboratory Method Reporting Limit

J = Estimated value

ns = not sampled

**Bold** = Non-detection value of analyte in exceedance of preliminary screenin



**Table 33. Cleanup Levels in Soil -  
Direct Contract**

Analyte	Soil MRL (mg/kg)	Soil MDL (mg/kg)	Preliminary Screening Level (mg/kg)	Method B Cleanup Level <sup>a</sup> (mg/kg) Non- Cancer	Method B Cleanup Level <sup>a</sup> (mg/kg) Cancer	Cleanup Level Selected
<b>VOCs</b>						
1,2,4-Trimethylbenzene	0.02	0.0004	4,000	--	--	NE
1,3,5-Trimethylbenzene	0.02	0.0004	800	800	--	Method B Non-Cancer
4-Isopropyltoluene	0.02	0.0004	0.02	--	--	NE
Methylene chloride	0.02	0.0000	2.6	480	500.00	Method B Cancer
Naphthalene	0.03	0.0003	137	1,600	--	Method B Non-Cancer
n-Propylbenzene	0.02	0.0003	0.02	8,000	--	Method B Non-Cancer
<b>SVOCs</b>						
1-Methylnaphthalene	2.0	0.012	0.1	5,600	34.50	Method B Cancer
2,4-Dinitrophenol	1	0.007	13.8	160	--	Method B Non-Cancer
2-Nitrophenol	1.0	0.005	0.2	--	--	NE
bis (2-Ethylhexyl) adipate	2.0	0.004	833	--	--	NE
Carbazole	1.0	0.008	0.5	--	--	NE
Pentachlorophenol	1.0	0.005	0.2	400	3	Method B Cancer
<b>Metals</b>						
Arsenic	0.1	1.0	20	24	0.667	Method B Non-Cancer
Copper	0.2	0.5	36	3,200	--	Method B Non-Cancer
Lead	0.2	1.0	250	250	--	Method B Non-Cancer
<b>PAHs</b>						
Acenaphthene	0.1	0.5	65.5	4,800	--	Method B Non-Cancer
Acenaphthylene	0.1	0.5	0.1	--	--	NE
Anthracene	0.1	0.1	12,285.40	24,000	--	Method B Non-Cancer
Benzo(g,h,i)perylene	0.08	0.5	0.08	--	--	NE
Fluoranthene	0.1	0.5	88.9	3,200	--	Method B Non-Cancer
Fluorene	0.1	0.1	546.7	3,200	--	Method B Non-Cancer
Naphthalene	0.1	0.5	138	1,600	--	Method B Non-Cancer
Phenanthrene	0.1	0.1	0.1	--	--	NE
Pyrene	0.1	0.1	2,400	2,400	--	Method B Non-Cancer
<b>cPAHs</b>						
TEQ				0.14	--	Method B Cancer
<b>TPH</b>						
TPH-Dx				2,000	--	Method B Non-Cancer
TPH-Oil				--	--	NE
TPH-Gx				100	--	Method B Non-Cancer

**Notes:**

Only chemicals detected at least once above PSLs are included.

mg/kg = milligram per kilogram

a = unrestricted land use

-- = Toxicity values not available

nc = non-carcinogen

NA = toxicity data not available.

NE = not established

**Table 34. Cleanup Levels in Groundwater**

Analyte	Preliminary Screening Level (ug/l)	Method B GW Cleanup Level (µg/L) Non-Cancer	Method B GW Cleanup Level (µg/L) Cancer	Wash WQC Marine <sup>1</sup>	Surface Water Cleanup Level (µg/L) non-cancer	Surface Water Cleanup Level (µg/L) cancer	Cleanup Level Selected
<b>VOCs</b>							
1,2,4-Trimethylbenzene	400	--	nc	NE	--	--	NE
1,3,5-Trimethylbenzene	400	80	nc	NE	--	--	NE
4-Isopropyltoluene	1.0	--	nc	NE	--	--	NE
Methylene chloride	590	48	22	NE	1.73E+04	3.60E+03	Surface Water - Cancer
Naphthalene	4938	160	nc	NE	--	--	NE
n-Propylbenzene		800	nc	NE	--	--	NE
<b>SVOCs</b>							
1-Methylnaphthalene	0.5	560	1.51	NE	--	--	NE
2,4-Dinitrophenol	3,456.8	32	nc	NE	--	--	NE
2-Nitrophenol	2.0	--	nc	NE	--	--	NE
bis (2-Ethylhexyl) adipate	400	--	nc	NE	--	--	NE
Carbazole	5.0	--	nc	NE	--	--	NE
Pentachlorophenol	2.0	80	0.22	7.9	7.9	1.47E+00	WQC Marine
<b>Metals</b>							
Arsenic	5.0	4.80	0.06	36	1.77E+01	9.82E-02	WQC Marine
Copper	2.4	640	nc	3.1	2.88E+03	--	WQC Marine
Lead	NE	--	--	8	--	--	WQC Marine
<b>PAHs</b>							
Acenaphthene	642.8	960	nc	NE	6.43E+02	--	Surface Water - Non Cancer
Acenaphthylene	0.5	--	nc	NE	--	--	NE
Anthracene	25,925.9	4,800	nc	NE	2.59E+04	--	Surface Water - Non Cancer
Benzo(g,h,i)perylene	0.5	--	nc	NE	--	--	NE
Fluoranthene	90.2	640	nc	NE	9.02E+01	--	Surface Water - Non Cancer
Fluorene	3,456.8	640	nc	NE	3.46E+03	--	Surface Water - Non Cancer
Naphthalene	4,938	160	nc	NE	4.94E+03	--	Surface Water - Non Cancer
Phenanthrene	0.5	--	nc	NE	--	--	NE
Pyrene	2,592.6	480	nc	NE	2.59E+03	--	Surface Water - Non Cancer
<b>cPAHs</b>							
cPAH TEQ				NE	--		
benzo(a)anthracene	0.1	NE	0.12	NE	--	2.96E-01	Surface Water - Cancer
benzo(a)pyrene	0.1	NE	0.01	NE	--	2.96E-02	Surface Water - Cancer
benzo(b)fluoranthene	0.1	NE	0.12	NE	--	2.96E-01	Surface Water - Cancer
benzo(k)fluoranthene	0.1	NE	1.20	NE	--	2.96E+00	Surface Water - Cancer
chrysene	0.1	NE	11.99	NE	--	2.96E+01	Surface Water - Cancer
dibenzo(a,h)anthracene	0.1	NE	0.01	NE	--	2.96E-02	Surface Water - Cancer
indeno(1,2,3-cd)pyrene	0.1	NE	0.12	NE	--	2.96E-01	Surface Water - Cancer
<b>TPH</b>							
TPH-Dx				NE	500	--	Surface Water - Non Cancer
TPH-Oil				NE	500	--	Surface Water - Non Cancer
TPH-Gx				NE	--	--	NE

**Notes:**

Only chemicals detected at least once above PSLs are included.

µg/L = micrograms per liter

nc = Non-carcinogen

1. = Marine Surface Water-WAC 173-201A-240

NE = not established/not evaluated

Table 35. November 2015 Additional Soil Sampling

TCSYSTEMS  
Everett, Washington

Analyte	CUL (mg/kg)	TC-MW-9R-V (3.5')		TC-MW-9R-V (6')		TC-MW-9R-V (8')		TC-MW-9R-V (10')		TC-MW-9R-V (12.5')		TC-MW-9R-V (14.5')		TC-SB-6-V (5')		TC-SB-6-V (8')		TC-SB-6-V (10')	
		ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
2-Methylnaphthalene	320	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
1-Methylnaphthalene	34.5	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Acenaphthene	4,800	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.535		ns	--
Acenaphthylene	NE	ns	--	0.330		0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Anthracene	24,000	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Benzo(a)anthracene	0.129	ns	--	0.230		0.092	U	0.081	U	ns	--	0.059	U	0.074		0.097	U	ns	--
benzo(a)pyrene	0.349	ns	--	0.524		0.092	U	0.081	U	ns	--	0.059	U	0.093		0.097	U	ns	--
benzo(b)fluoranthene	1.37	ns	--	1.14		0.092	U	0.081	U	ns	--	0.059	U	0.074		0.097	U	ns	--
benzo(k)fluoranthene	13.7	ns	--	0.346		0.097		0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Chrysene	0.143	ns	--	0.305		0.092	U	0.081	U	ns	--	0.059	U	0.111		0.097	U	ns	--
Dibenzo(a,h)anthracene	0.644	ns	--	0.218		0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Indeno(1,2,3-cd)pyrene	1.37	ns	--	0.576		0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Benzo(g,h,i)perylene	NE	ns	--	0.496		0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Fluoranthene	3,200	ns	--	0.223		0.092	U	0.081	U	ns	--	0.059	U	0.149		0.285		ns	--
Fluorene	3,200	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.399		ns	--
Naphthalene	1,600	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.072	U	0.097	U	ns	--
Phenanthrene	NE	ns	--	0.095	U	0.092	U	0.081	U	ns	--	0.059	U	0.077		0.119		ns	--
Pyrene	2,400	ns	--	0.229		0.092	U	0.081	U	ns	--	0.059	U	0.217		0.218		ns	--
TEQ		--	--	0.78		0.0097				--	--			0.11		U			--

Arsenic (mg/kg)	24	16.7	8.80	ns	ns	22.7	9.89	17.2	10.9	11.2
Copper (mg/kg)	36	50.4	360	ns	ns	117	22.7	71.4	750.0	98.7
soil pH	--	8.05								

Arsenic-SPLP (µg/L)	12.0	ns	ns	ns	ns	ns	ns	ns	ns	ns
Copper-SPLP (µg/L)	4.69	ns	ns	ns	ns	ns	ns	ns	ns	ns

Soil Description	1
Dry bulk density (kg/L)	1.87
Total Porosity	30%
Water-filled porosity	25%
Cation Exchange Capacity	6.8
foc (mg/kg)	1200

1
1.87
30%
25%
6.8
1200

Soil Description Legend

- 1 = dark, olive brown well graded gravel with silt, sand and organics
- 2 = very dark brown silty organics with sand and gravel
- 3 = dark gray poorly-graded sand with gravel

Denotes carcinogenic PAH

Table 35. November 2015 Additional Soil Sampling

TCSystems  
Everett, Washington

Analyte	CUL (mg/kg)	TC-SB-6-V (12.5')	TC-SB-6-V (15')	TC-MW-6-V (7.5')	TC-MW-6-V (10')	TC-MW-6-V (13')	TC-SB-8-V (10')	TC-SB-8-V (13')	TC-SB-12-V (3')	TC-SB-12-V (5')
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PAHs by EPA Method 8270 (SIM)

2-Methylnaphthalene	320	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
1-Methylnaphthalene	34.5	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Acenaphthene	4,800	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Acenaphthylene	NE	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Anthracene	24,000	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Benzo(a)anthracene	0.129	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
benzo(a)pyrene	0.349	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
benzo(b)fluoranthene	1.37	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
benzo(k)fluoranthene	13.7	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Chrysene	0.143	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Dibenzo(a,h)anthracene	0.644	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Indeno(1,2,3-cd)pyrene	1.37	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Benzo(g,h,i)perylene	NE	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Fluoranthene	3,200	0.062	U	0.058	U	0.120	U	0.224	U	0.083	U	ns	--	0.095	U	ns	--	ns	--
Fluorene	3,200	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Naphthalene	1,600	0.062	U	0.058	U	0.120	U	0.149	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Phenanthrene	NE	0.062	U	0.058	U	0.120	U	0.162	U	0.083	U	ns	--	0.091	U	ns	--	ns	--
Pyrene	2,400	0.062	U	0.058	U	0.120	U	0.217	U	0.083	U	ns	--	0.096	U	ns	--	ns	--
TEQ			U		U		U		U		U		--		U		--	ns	--

Metal Results

Arsenic (mg/kg)	24	7.50		10.3		10.9	D	ns		ns		9.79		13.9		64.8			
Copper (mg/kg)	36	23.2		16.6		126.000	D	ns		ns		131		71.4		56.9			
soil pH	--															12.5			

Metals with EPA Method 1312 extraction (SPLP)

Arsenic-SPLP (µg/L)		ns		ns		ns		ns		ns		ns		ns		5.00	U		
Copper-SPLP (µg/L)		ns		ns		ns		ns		ns		ns		ns		3.10	U		

Soil Physical Properties

- Soil Description
- Dry bulk density (kg/L)
- Total Porosity
- Water-filled porosity
- Cation Exchange Capacity
- foc (mg/kg)

Denotes carcinogenic PAH

Table 35. November 2015 Additional Soil Sampling

TCSYSTEMS  
Everett, Washington

Analyte	CUL (mg/kg)	TC-SB-12-V (7.5')		TC-SB-12-V (9.5')		TC-SB-12-V (12')		TC-SB-12-V (15')		TC-MW-7-V (3')		TC-MW-7-V (5')		TC-MW-7-V (7.5')		TC-MW-7-V (10')		TC-MW-7-V (12.5')		TC-MW-7-V (15')	
		ns	--	ns	--	ns	--	ns	--	ns	--	ns	--	ns	--	ns	--	ns	--	ns	--
2-Methylnaphthalene	320	ns	--	ns	--	ns	--	ns	--	ns	--	0.226		0.115	U	0.065	U	0.063	U	0.090	U
1-Methylnaphthalene	34.5	ns	--	ns	--	ns	--	ns	--	ns	--	0.365		0.115	U	0.065	U	0.063	U	0.090	U
Acenaphthene	4,800	ns	--	ns	--	ns	--	ns	--	ns	--	2.260		0.115	U	0.065	U	0.063	U	0.090	U
Acenaphthylene	NE	ns	--	ns	--	ns	--	ns	--	ns	--	0.116		0.115	U	0.065	U	0.063	U	0.090	U
Anthracene	24,000	ns	--	ns	--	ns	--	ns	--	ns	--	4.160		0.115	U	0.065	U	0.063	U	0.090	U
Benzo(a)anthracene	0.129	ns	--	ns	--	ns	--	ns	--	ns	--	3.070		0.117		0.065	U	0.063	U	0.090	U
benzo(a)pyrene	0.349	ns	--	ns	--	ns	--	ns	--	ns	--	2.030		0.136		0.065	U	0.063	U	0.090	U
benzo(b)fluoranthene	1.37	ns	--	ns	--	ns	--	ns	--	ns	--	2.610		0.150		0.065	U	0.063	U	0.090	U
benzo(k)fluoranthene	13.7	ns	--	ns	--	ns	--	ns	--	ns	--	1.090		0.115	U	0.065	U	0.063	U	0.090	U
Chrysene	0.143	ns	--	ns	--	ns	--	ns	--	ns	--	4.100		0.118		0.065	U	0.063	U	0.090	U
Dibenzo(a,h)anthracene	0.644	ns	--	ns	--	ns	--	ns	--	ns	--	0.184		0.115	U	0.065	U	0.063	U	0.090	U
Indeno(1,2,3-cd)pyrene	1.37	ns	--	ns	--	ns	--	ns	--	ns	--	0.503		0.115	U	0.065	U	0.063	U	0.090	U
Benzo(g,h,i)perylene	NE	ns	--	ns	--	ns	--	ns	--	ns	--	0.557		0.115	U	0.065	U	0.063	U	0.090	U
Fluoranthene	3,200	ns	--	ns	--	ns	--	ns	--	ns	--	12.400		0.223		0.065	U	0.063	U	0.090	U
Fluorene	3,200	ns	--	ns	--	ns	--	ns	--	ns	--	2.190		0.115	U	0.065	U	0.063	U	0.090	U
Naphthalene	1,600	ns	--	ns	--	ns	--	ns	--	ns	--	0.785		0.115	U	0.065	U	0.063	U	0.090	U
Phenanthrene	NE	ns	--	ns	--	ns	--	ns	--	ns	--	7.290		0.170		0.065	U	0.063	U	0.090	U
Pyrene	2,400	ns	--	ns	--	ns	--	ns	--	ns	--	10.100		0.224		0.065	U	0.063	U	0.090	U
TEQ		ns	--	ns	--	ns	--	ns	--	ns	--	2.82		0.16			U		U		U

Arsenic (mg/kg)	24			21.4						14.3		18.4		13.9		9.30		22.9		13.3	
Copper (mg/kg)	36			173						93.2		95.8		62.1		37.7		80.1		52.5	
soil pH	--			7.37						9.76											

Arsenic-SPLP (µg/L)				5.00	U					57.3		ns	--	ns	--	ns	--	ns	--	ns	--
Copper-SPLP (µg/L)				3.21						11.6		ns	--	ns	--	ns	--	ns	--	ns	--

Soil Description		2		3
Dry bulk density (kg/L)		0.45		1.38
Total Porosity		78%		50%
Water-filled porosity		44%		45%
Cation Exchange Capacity		20		3.4
foc (mg/kg)		130,000		49,000

Denotes carcinogenic PAH

**Table 36  
Proposed Cleanup Levels in Soil**

Analyte	Soil MRL (mg/kg)	Preliminary Screening Level (mg/kg)	Method B CUL Protection of Groundwater as Surface Water(mg/kg) <sup>1</sup>	Method B CUL Direct Contact (mg/kg)	Cleanup Level Selected
<b>VOCs</b>					
1,2,4-Trimethylbenzene	0.02	4,000	NE	4,000	Method B Non-Cancer
1,3,5-Trimethylbenzene	0.02	800	NE	800	Method B Non-Cancer
4-Isopropyltoluene	0.02	0.02	NE	NE	NE
cis 1,2-dichloroethene	0.02	70	0.08	160	Method B Non-Cancer
Methylene chloride	0.02	2.6	480	500	Method B Cancer
Naphthalene	0.03	137	4.46	1,600	Method B Non-Cancer
n-Propylbenzene	0.02	0.02	NE	8,000	Method B Non-Cancer
Toluene	0.02	109	4.65	6,400	Method B Non-Cancer
Total Xylenes	0.02	14.6	14.6	16,000	Method B Non-Cancer
<b>SVOCs</b>					
1-Methylnaphthalene	2.0	34.5	NE	34.50	Method B Cancer
2,4-Dinitrophenol	1	13.8	0.128	160	Method B Protection of Groundwater
2-Nitrophenol	1.0	0.2	NE	NE	--
bis (2-Ethylhexyl) phthalate	2.0	4.9	13	71	Method B Protection of Groundwater
Carbazole	1.0	0.5	NE	NE	--
Pentachlorophenol	1.0	0.1	0.05	2.5	Soil MRL
<b>Metals</b>					
Arsenic <sup>2</sup>	0.1	20	0.14	0.667	Method A
Copper	0.2	36	1.4	3,200	Background
Lead	0.2	250	1,620	250	Method A
Nickel	0.1	47.8	11	1,600	Background
<b>PAHs</b>					
Acenaphthene	0.1	65.5	65.5	4,800	Method B Protection of Groundwater
Acenaphthylene	0.1	0.1	NE	NE	--
Anthracene	0.1	12,285	12,285	24,000	Method B Protection of Groundwater
Benzo(a)anthracene	0.1	0.13	0.13	1.37	Method B Cancer
Benzo(a)pyrene	0.1	0.14	0.35	0.137	Method B Protection of Groundwater
Benzo(b)fluoranthene	0.1	TEQ	0.44	1.37	Method B Protection of Groundwater
Benzo(g,h,i)perylene	0.08	0.08	NE	NE	--
Benzo(k)fluoranthene	0.1	TEQ	0.44	13.7	Method B Protection of Groundwater
Chrysene	0.1	TEQ	0.14	137	Method B Protection of Groundwater
Dibenzo(a,h)anthracene	0.1	TEQ	0.64	0.137	Method B Protection of Groundwater
Fluoranthene	0.1	88.9	88.9	3,200	Method B Non-Cancer
Fluorene	0.1	546.7	546.7	3,200	Method B Non-Cancer
Indeno(1,2,3-cd)pyrene	0.1	TEQ	1.25	1.37	Method B Non-Cancer
Naphthalene	0.1	138	138	1,600	Method B Non-Cancer
Phenanthrene	0.1	0.1	NE	NE	--
Pyrene	0.1	2,400	3,540	2,400	Method B Non-Cancer
<b>cPAHs</b>					
TEQ			0.14	--	Method B Cancer
<b>TPH</b>					
TPH-Dx	20	2000	NE	2,000	Method B Non-Cancer
TPH-Oil	50	2000	NE	--	NE
TPH-Gx	5	100	NE	100	Method B Non-Cancer

**Notes:**

Only chemicals detected at a frequency > 5% are presented.

mg/kg = milligram per kilogram

1. Soil concentration corresponding to target surface water concentration used in the 3-phase model

2. The MTCA Method A soil Cleanup Screening Level for unrestricted land use and MTCA Method A cleanup level for potable water were used for arsenic because it was established based on adjustment for background. From Responsiveness Summary for the Amendments to the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC. 1991.

NE = not established

**Table 37**  
**Proposed Cleanup Levels in Groundwater**

Analyte	Preliminary Screening Level (ug/l)	Applicable Surface Water ARAR (ug/L)	Method B GW Cleanup Level (ug/L) Cancer	Wash WQC Marine <sup>1</sup>	Surface Water Cleanup Level (ug/L) non-cancer	Surface Water Cleanup Level (ug/L) cancer	Groundwater in Excavation CUL (ug/L) <sup>2</sup>	Cleanup Level Selected
<b>VOCs</b>								
1,2,4-Trimethylbenzene	400	--	nc	NE	--	--	--	NE
1,3,5-Trimethylbenzene	400	80	nc	NE	--	--	--	NE
4-Isopropyltoluene	1	--	nc	NE	--	--	--	NE
Methylene chloride	590	48	22	NE	1.73E+04	3.60E+03	--	Surface Water - Cancer
Naphthalene	4938	160	nc	NE	--	--	590	NE
n-Propylbenzene		800	nc	NE	--	--	--	NE
<b>SVOCs</b>								
1-Methylnaphthalene	0.5	560	1.51	NE	--	--	850	560
2,4-Dinitrophenol	3457	32	nc	NE	--	--	--	NE
2-Nitrophenol	2	--	nc	NE	--	--	--	NE
bis (2-Ethylhexyl) phthalate	400	--	nc	NE	--	--	2,200	NE
Carbazole	5	--	nc	NE	--	--	--	NE
Pentachlorophenol	2	80	0.22	7.9	7.9	1.47E+00	--	WQC Marine
<b>Metals</b>								
Arsenic	5	5	0.06	36	1.77E+01	9.82E-02	5.90E+03	Method A
Copper	2.4	640	nc	3.1	2.88E+03	--	5.30E+05	WQC Marine
Lead	NE	--	--	8	--	--	--	WQC Marine
							--	
<b>PAHs</b>								
Acenaphthene	670	960	nc	NE	6.43E+02	--	--	Surface Water - Non Cancer
Acenaphthylene	NE	--	nc	NE	--	--	--	NE
Anthracene	25,926	4,800	nc	NE	2.59E+04	--	--	Surface Water - Non Cancer
Benzo(a)anthracene	0.018	0.018	0.120	NE	NE	NE	180	Surface Water - Cancer
Benzo(a)pyrene	0.018	0.018	0.012	NE	NE	NE	--	Surface Water - Cancer
Benzo(b)fluoranthene	0.018	0.018	0.120	NE	NE	NE	--	Surface Water - Cancer
Chrysene	0.018	0.018	12	NE	NE	NE	--	Surface Water - Cancer
Fluoranthene	140	640	nc	NE	9.02E+01	--	--	Surface Water - Non Cancer
Fluorene	5,300	640	nc	NE	3.46E+03	--	--	Surface Water - Non Cancer
Naphthalene	4,938	160	nc	NE	4.94E+03	--	590	Surface Water - Non Cancer
Phenanthrene	0.5	--	nc	NE	--	--	--	NE
Pyrene	4,000	480	nc	NE	2.59E+03	--	--	Surface Water - Non Cancer
<b>cPAHs</b>								
cPAH TEQ				NE	--	--	--	
benzo(a)anthracene	0.1	NE	0.12	NE	--	2.96E-01	--	Surface Water - Cancer
benzo(a)pyrene	0.1	NE	0.01	NE	--	2.96E-02	--	Surface Water - Cancer
benzo(b)fluoranthene	0.1	NE	0.12	NE	--	2.96E-01	--	Surface Water - Cancer
benzo(k)fluoranthene	0.1	NE	1.20	NE	--	2.96E+00	--	Surface Water - Cancer
chrysene	0.1	NE	11.99	NE	--	2.96E+01	--	Surface Water - Cancer
dibenzo(a,h)anthracene	0.1	NE	0.01	NE	--	2.96E-02	--	Surface Water - Cancer
indeno(1,2,3-cd)pyrene	0.1	NE	0.12	NE	--	2.96E-01	--	Surface Water - Cancer
<b>TPH</b>								
TPH-Dx				NE	500	--	500	Surface Water - Non Cancer
TPH-Oil				NE	500	--	500	Surface Water - Non Cancer
TPH-Gx				NE	--	--	--	NE

**Notes:**

Only chemicals detected at a frequency > 5% are presented.

ug/L = micrograms per liter

nc = Non-carcinogen

1. =173-201A WAC

2. = See Table 38.

NE = not established/not evaluated

**Table 38  
Proposed CULs-Construction and Excavation Workers-Groundwater in Excavation**

Chemical <sup>1</sup>	MW	IUR*	RfD <sub>d</sub>	RfC	Sfo	t <sub>event</sub>	t*	b	c	D <sub>sc</sub>	Kp	B	T	FA	t <sub>event</sub> <t*	DA (t <sub>event</sub> <t*)	DA (t <sub>event</sub> >t*)	CUL (ug/L)
Benzo(a)anthracene	2.3E+02	1.1E-04	--	--	7.3E-01	1	8.3E+00	6.1E+00	2.8E+00	8.2E-08	5.5E-01	3.2E+00	2.0E+00	1	Yes	2.2E-03	--	1.8E+02
1-methylnaphthalene	1.10E+02	nv	7.0E-02	--	2.9E-02	1	1.6E+00	3.2E-01	3.5E-01	3.9E-07	9.3E-02	4.3E-01	6.6E-01	1	Yes	2.1E-04	--	8.5E+02
Aroclor 1254	3.30E+02	nv	2.0E-05	--	7.0E-02	1	1.9E+01	NA	NA	NA	5.5E-01	3.6E+00	4.5E+00	1	Yes	3.2E-03	--	2.3E+01
Naphthalene **	1.30E+02	3.4E-05	2.0E-02	3.0E+00	--	1	1.3E+00	4.4E-01	4.8E-01	3.0E-07	4.7E-02	2.0E-01	5.5E-01	1	Yes	9.6E-05	--	5.9E+02
Di(2-ethylhexyl)phthalate	3.91E+02	nv	2.0E-02	--	1.4E-02	1	7.3E+01	NA	NA	NA	1.1E+00	8.6E+00	1.6E+01	1	Yes	1.7E-04	--	2.2E+03
Arsenic	7.80E+01	nv	3.0E-06	1.5E-05	1.5E+00	1	6.9E-01	NA	NA	5.8E-07	1.0E-03	3.4E-03	2.9E-01	1	No	--	5.8E-07	5.9E+03
Copper	6.35E+01	nv	4.0E-02	--	--	1	5.7E-01	3.0E-01	3.3E-01	1.4E-06	1.0E-03	3.1E-03	1.2E-01	1	No	--	2.4E-07	5.3E+05
Diesel Range Organics	Use MTCA Method A																	
Heavy Fuel Oil	Use MTCA Method A																	

Notes:

1. = Only chemicals exceeding MTCA B Groundwater or ARARs and detected at a frequency greater than 5% are evaluated.

Naphthalene\*\* = CUL based on inhalation from groundwater. Naphthalene not carcinogenic by other routes of exposure including dermal absorption.

CUL<sub>we carcinogens (ug/L)</sub> =  $ARLc \cdot ATc \cdot BW / EDe \cdot EF_e \cdot [Ete \cdot (1d/24hr) \cdot (VFwe \cdot IUR \cdot BW) + (DAevent \cdot EvFw \cdot SAw \cdot SFo \cdot 1E-03)]$

CUL<sub>we non-carcinogens (ug/L)</sub> =  $ARLnc \cdot ATnc \cdot BW / (EDe \cdot EF_e) \cdot [Ete \cdot (1d/24hrs) \cdot (VF \cdot BW) / RfC] + (DAevent \cdot EvFw \cdot SA) / RfDo \cdot 1E+03$  (ug/mg)

Where:

ARLc = 1.0E-06 (unitless)

ARLnc = 1 (unitless)

AT<sub>c</sub> = 2.7E+04 (365 days x 75 years)

AT<sub>nc</sub> = 3.7E+02 (EDE \*365 days)

EDe = 1 yr.

EF<sub>e</sub> = 6.5E+01 Exposure frequency = 65 d/yr

VFwe = 5.0E-01 Volatilization factor (L/m<sup>3</sup>)-generic based on tap water

IUR = Chem specific Inhalation unit risk factor (ug/m<sup>3</sup>)

t<sub>event</sub> = 1 duration of event exposure

EvFw = 1 Frequency of groundwater contact (events/d)

SA<sub>w</sub> = 5.7E+03 Skin surface contact area (cm<sup>2</sup>)-head arms, lower legs and feet-source: EPA 2011.

RfD = Chem specific Reference dose-dermal = RfDo since GI<sub>ABS</sub> is assumed to be 1.

RfC = Chem specific Reference concentration

SfD = Chem specific Slope factor dermal (mg/kg-day)= Sfo since GI<sub>ABS</sub> is assumed to be 1.

DA<sub>event</sub> = Chem specific Dermal absorption factor for groundwater (L/cm<sup>2</sup>-event) = fo T\*(event/pi) \* 1E-03L/cm<sup>3</sup>

nv = not volatile for t>t\* = FA \* Kp \* (t<sub>event</sub>/1+B)+2\*T\*(1+3B+3B<sup>2</sup>/(1+B)<sup>2</sup>)\*1E-03L/cm<sup>3</sup>

T (tau) = lag time (hr/event) DA<sub>w</sub> for inorganics = Kp \* t<sub>event</sub>.

Kp = Chem specific Dermal permeability coefficient (cm/hr)

t\* = time to reach steady state (hr)

1) if B<0.6, then t\* = 2.4 x t<sub>event</sub>

2) if B>0.6, then t\* = (b - ((b<sup>2</sup>-c<sup>2</sup>)<sup>0.5</sup>)) x 6 t<sub>event</sub>

b =  $\frac{(2 \times (1 + B)^2) / p - c}{1}$

c =  $\frac{(1 + 3B + 3B^2) / 3(1 + 3B)}{1}$

I<sub>sc</sub> = 1.0E-03 cm D<sub>sc</sub> = 10<sup>(-2.80 - (0.0056 x MW))</sup> x I<sub>sc</sub>

References:

Values for B, T, t\* confirmed against EPA RSLs (May 2016).

\* = All toxicological data obtained from EPA RSLs (May 2016)

USEPA 2004 RAGS Part E, Supplemental Guidance for Dermal Risk Assessment

USEPA 2011 Exposure Factors Handbook

USEPA 1991 Supplemental Guidance to RAGS: Calculating the Concentration Term

USEPA 1995 Air/Superfund National Technical Guidance Series for Predictive Baseline Emissions Estimates.

USEPA 1988 Superfund Exposure Assessment Manual.



**Table 39. Potential Indicator Hazardous Substance Evaluation for Soil  
Volatile Organic Compounds by EPA 8260**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?
1,1,1,2-Tetrachloroethane	34	0	0%	0	38.5	0.00681	0.070	0.00681	0.070	No
1,1,1-Trichloroethane (TCA)	34	0	0%	0	160,000	0.00742	0.0467	0.00742	0.0467	No
1,1,2,2-Tetrachloroethane	34	0	0%	0	5	0.0102	0.0467	0.01020	0.0467	No
1,1,2-Trichloroethane	34	0	0%	0	17.5	0.0028	0.070	0.00277	0.070	No
1,1-Dichloroethane	34	0	0%	0	175	0.0024	0.0467	0.00240	0.0467	No
1,1-Dichloroethene	34	0	0%	0	NR	0.00199	0.117	0.00199	0.117	No
1,1-Dichloropropene	34	0	0%	0	NR	0.00457	0.0467	0.00457	0.0467	No
1,2,3-Trichlorobenzene	34	0	0%	0	NR	0.00401	0.0467	0.00401	0.0467	No
1,2,3-Trichloropropane	34	0	0%	0	0.0333	0.00623	0.0467	0.00623	0.0467	No
1,2,4-Trichlorobenzene	34	0	0%	0	34.5	0.0046	0.117	0.00462	0.117	No
1,2,4-Trimethylbenzene	34	2	6%	0	NE	0.0027	0.0467	0.0543	0.168	No
1,2-Dibromo-3-Chloropropane	34	0	0%	0	1.25	0.0182	0.070	0.0182	0.070	No
1,2-Dibromoethane (EDB)	34	0	0%	0	0.5	0.0016	0.0117	0.00157	0.0117	No
1,2-Dichlorobenzene	34	0	0%	0	7,200	0.00330	0.0467	0.00330	0.0467	No
1,2-Dichloroethane (EDC)	34	0	0%	0	11	0.00272	0.070	0.00272	0.070	No
1,2-Dichloropropane	34	0	0%	0	27.8	0.00392	0.0467	0.00392	0.0467	No
1,3,5-Trimethylbenzene	34	1	3%	0	800	0.00270	0.0467	0.0761	0.0761	No
1,3-Dichlorobenzene	34	0	0%	0	NE	0.00619	0.0467	0.00619	0.0467	No
1,3-Dichloropropane	34	0	0%	0	10	0.00280	0.117	0.00280	0.117	No
1,4-Dichlorobenzene	34	0	0%	0	185	0.00178	0.0467	0.00178	0.0467	No
2,2-Dichloropropane	34	0	0%	0	NE	0.00584	0.117	0.00584	0.117	No
2-Chlorotoluene	34	0	0%	0	1,600	0.00318	0.0467	0.00318	0.0467	No
4-Chlorotoluene	34	0	0%	0	1,600	0.00178	0.0467	0.00178	0.0467	No
4-Isopropyltoluene	34	4	12%	0	NR	0.00218	0.0467	0.22	2.28	No
Benzene	34	0	0%	0	18.2	0.00288	0.0467	0.00288	0.0467	No
Bromobenzene	34	0	0%	0	NR	0.00664	0.070	0.00664	0.070	No
Bromodichloromethane	34	0	0%	0	16.1	0.00260	0.0467	0.00260	0.0467	No
Bromoform	34	0	0%	0	127	0.00469	0.0467	0.00469	0.0467	No
Bromomethane	34	0	0%	0	112	0.00629	0.21	0.00629	0.21	No
Carbon tetrachloride	34	0	0%	0	14.3	0.00471	0.0467	0.00471	0.0467	No
Chlorobenzene	34	0	0%	0	1,600	0.00153	0.0467	0.00153	0.0467	No
Chloroethane	34	0	0%	0	NR	0.00532	0.140	0.00532	0.140	No
Chloroform	34	0	0%	0	32.3	0.00300	0.0467	0.00300	0.0467	No
Chloromethane	34	0	0%	0	NE	0.00783	0.140	0.00783	0.140	No
cis-1,2-Dichloroethene	34	2	6%	0	NR	0.00440	0.0467	0.0332	0.0764	No

**Table 39. Potential Indicator Hazardous Substance Evaluation for Soil  
Volatile Organic Compounds by EPA 8260**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?
cis-1,3-Dichloropropene	34	0	0%	0	NR	0.00298	0.0467	0.00298	0.0467	No
Dibromochloromethane	34	0	0%	0	11.9	0.00258	0.070	0.00258	0.070	No
Dibromomethane	34	0	0%	0	NR	0.00461	0.0933	0.00461	0.0933	No
Dichlorodifluoromethane (CFC-12)	34	0	0%	0	16,000	0.00608	0.140	0.00608	0.140	No
Ethylbenzene	34	1	3%	0	8,000	0.00240	0.070	1.47	1.47	No
Hexachloro-1,3-butadiene	34	0	0%	0	12.8	0.00823	0.233	0.00823	0.233	No
Isopropylbenzene	34	0	0%	0	NR	0.00175	0.187	0.00175	0.187	No
Methylene chloride	34	2	6%	0	500	0.00322	0.0467	0.0264	0.0633	No
Naphthalene	34	4	12%	0	1,600	0.00360	0.070	0.0179	20.5	No
n-Butylbenzene	34	0	0%	0	4,000	0.00260	0.0467	0.00260	0.0467	No
n-Propylbenzene	34	1	3%	0	8,000	0.00168	0.0467	0.0289	0.0289	No
sec-Butylbenzene	34	0	0%	0	8,000	0.00165	0.0467	0.00165	0.0467	No
Styrenes	34	0	0%	0	16,000	0.00175	0.0467	0.00175	0.0467	No
tert-Butylbenzene	34	0	0%	0	8,000	0.00232	0.0467	0.00232	0.0467	No
Tetrachloroethene (PCE)	34	0	0%	0	476	0.00255	0.0467	0.00255	0.0467	No
Toluene	34	2	6%	0	6,400	0.00220	0.0467	0.0829	0.239	No
Total Xylenes	34	3	9%	0	16,000	0.00539	0.0934	0.0908	1.08	No
trans-1,2-Dichloroethene	34	0	0%	0	1,600	0.00320	0.0467	0.00320	0.0467	No
Trans-1,3-Dichloropropene	34	0	0%	0	NR	0.00195	0.070	0.00195	0.070	No
Trichloroethene (TCE)	34	0	0%	0	12	0.00839	0.070	0.00839	0.070	No
Trichlorofluoromethane (CFC-11)	34	0	0%	0	24,000	0.00532	0.117	0.00532	0.117	No
Vinyl chloride	34	1	3%	0	240	0.00307	0.00467	0.002	0.002	No

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

**Table 39. Potential Indicator Hazardous Substance Evaluation for Soil  
Volatile Organic Compounds by EPA 8260**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Rational Inclusion or Exclusion as an IHS
1,1,1,2-Tetrachloroethane	34	0	0%	0	Analyte not detected
1,1,1-Trichloroethane (TCA)	34	0	0%	0	Analyte not detected
1,1,2,2-Tetrachloroethane	34	0	0%	0	Analyte not detected
1,1,2-Trichloroethane	34	0	0%	0	Analyte not detected
1,1-Dichloroethane	34	0	0%	0	Analyte not detected
1,1-Dichloroethene	34	0	0%	0	Analyte not detected
1,1-Dichloropropene	34	0	0%	0	Analyte not detected
1,2,3-Trichlorobenzene	34	0	0%	0	Analyte not detected
1,2,3-Trichloropropane	34	0	0%	0	Analyte not detected
1,2,4-Trichlorobenzene	34	0	0%	0	Analyte not detected
1,2,4-Trimethylbenzene	34	2	6%	0	Analyte did not exceed the cleanup level
1,2-Dibromo-3-Chloropropane	34	0	0%	0	Analyte not detected
1,2-Dibromoethane (EDB)	34	0	0%	0	Analyte not detected
1,2-Dichlorobenzene	34	0	0%	0	Analyte not detected
1,2-Dichloroethane (EDC)	34	0	0%	0	Analyte not detected
1,2-Dichloropropane	34	0	0%	0	Analyte not detected
1,3,5-Trimethylbenzene	34	1	3%	0	Frequency of detection
1,3-Dichlorobenzene	34	0	0%	0	Analyte not detected
1,3-Dichloropropane	34	0	0%	0	Analyte not detected
1,4-Dichlorobenzene	34	0	0%	0	Analyte not detected
2,2-Dichloropropane	34	0	0%	0	Analyte not detected
2-Chlorotoluene	34	0	0%	0	Analyte not detected
4-Chlorotoluene	34	0	0%	0	Analyte not detected
4-Isopropyltoluene	34	4	12%	0	Analyte did not exceed the cleanup level
Benzene	34	0	0%	0	Analyte not detected
Bromobenzene	34	0	0%	0	Analyte not detected
Bromodichloromethane	34	0	0%	0	Analyte not detected
Bromoform	34	0	0%	0	Analyte not detected
Bromomethane	34	0	0%	0	Analyte not detected
Carbon tetrachloride	34	0	0%	0	Analyte not detected
Chlorobenzene	34	0	0%	0	Analyte not detected
Chloroethane	34	0	0%	0	Analyte not detected
Chloroform	34	0	0%	0	Analyte not detected
Chloromethane	34	0	0%	0	Analyte not detected
cis-1,2-Dichloroethene	34	2	6%	0	Analyte did not exceed the cleanup level

**Table 39. Potential Indicator Hazardous Substance Evaluation for Soil  
Volatile Organic Compounds by EPA 8260**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Rational Inclusion or Exclusion as an IHS
cis-1,3-Dichloropropene	34	0	0%	0	Analyte not detected
Dibromochloromethane	34	0	0%	0	Analyte not detected
Dibromomethane	34	0	0%	0	Analyte not detected
Dichlorodifluoromethane (CFC-12)	34	0	0%	0	Analyte not detected
Ethylbenzene	34	1	3%	0	Frequency of detection
Hexachloro-1,3-butadiene	34	0	0%	0	Analyte not detected
Isopropylbenzene	34	0	0%	0	Analyte not detected
Methylene chloride	34	2	6%	0	Analyte did not exceed the cleanup level
Naphthalene	34	4	12%	0	Analyte did not exceed the cleanup level
n-Butylbenzene	34	0	0%	0	Analyte not detected
n-Propylbenzene	34	1	3%	0	Frequency of detection
sec-Butylbenzene	34	0	0%	0	Analyte not detected
Styrenes	34	0	0%	0	Analyte not detected
tert-Butylbenzene	34	0	0%	0	Analyte not detected
Tetrachloroethene (PCE)	34	0	0%	0	Analyte not detected
Toluene	34	2	6%	0	Analyte did not exceed the cleanup level
Total Xylenes	34	3	9%	0	Analyte did not exceed the cleanup level
trans-1,2-Dichloroethene	34	0	0%	0	Analyte not detected
Trans-1,3-Dichloropropene	34	0	0%	0	Analyte not detected
Trichloroethene (TCE)	34	0	0%	0	Analyte not detected
Trichlorofluoromethane (CFC-11)	34	0	0%	0	Analyte not detected
Vinyl chloride	34	1	3%	0	Frequency of detection

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

**Table 40. Potential Indicator Hazardous Substance Evaluation for Soil  
Semi-volatile organic compounds by EPA Method 8270**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?
1,2,4-Trichlorobenzene	64	0	0%	0	34.5	0.00476	1.16	0.115	0.115	No
1,2-Dichlorobenzene	64	0	0%	0	7,200	0.0057	1.16	0.0057	1.16	No
1,2-Dinitrobenzene	57	0	0%	0	8	0.0152	1.16	0.0152	1.16	No
1,3-Dichlorobenzene	64	0	0%	0	NE	0.00396	1.16	0.00396	1.16	No
1,3-Dinitrobenzene	64	0	0%	0	8	0.0109	5.81	0.0109	5.81	No
1,4-Dichlorobenzene	64	0	0%	0	185	0.00594	1.16	0.00594	1.16	No
1,4-Dinitrobenzene	64	0	0%	0	8	0.0124	5.81	0.0124	5.81	No
1-Methylnaphthalene	87	44	51%	2	34.5	0.0005587	1.030	0.00739	90.7	Yes
2,3,4,6-Tetrachlorophenol	64	0	0%	0	2,400	0.00511	1.16	0.00511	1.16	No
2,3,5,6-Tetrachlorophenol	64	0	0%	0	NR	0.00658	1.16	0.00658	1.16	No
2,4,5-Trichlorophenol	64	0	0%	0	8,000	0.00834	2.32	0.00834	2.32	No
2,4,6-Trichlorophenol	64	0	0%	0	90.9	0.00516	2.32	0.00516	2.32	No
2,4-Dichlorophenol	64	0	0%	0	240	0.00461	2.32	0.00461	2.32	No
2,4-Dimethylphenol	64	1	1.7%	0	1,600	0.00925	1.16	0.124	0.124	No
2,4-Dinitrophenol	64	2	3%	0	160	0.169	2.32	0.169	2.32	No
2,4-Dinitrotoluene	64	0	0%	0	3.23	0.0172	1.16	0.0172	1.16	No
2,6-Dinitrotoluene	64	0	0%	0	0.667	0.00662	1.16	0.00662	1.16	No
2-Chloronaphthalene	64	0	0%	0	NR	0.00351	1.16	0.00351	1.16	No
2-Chlorophenol	64	0	0%	0	400	0.00324	1.16	0.00324	1.16	No
2-Methylnaphthalene	87	48	55%	0	320	0.00098	1.03	0.0132	165	No
2-Methylphenol (o-cresol)	64	2	3%	0	4,000	0.00679	1.16	0.028	0.0479	No
2-Nitroaniline	64	0	0%	0	800	0.0175	5.81	0.0175	5.81	No
2-Nitrophenol	64	21	33%	0	NR	0.00821	2.32	0.0466	1.41	No
3-Methylphenol (p-cresol)	64	14	22%	0	8,000	0.00742	0.1600	0.0275	144	No
3-Nitroaniline	64	0	0%	0	NR	0.00603	5.81	0.00603	5.81	No
4,6-Dinitro-2-methylphenol	64	0	0%	0	NR	0.12	2.32	0.12	2.32	No
4-Bromo phenyl phenyl ether	64	0	0%	0	NR	0.0059	1.16	0.0059	1.16	No
4-Chloro-3-methylphenol	64	0	0%	0	NR	0.169	5.81	0.169	5.81	No
4-Chloroaniline	64	0	0%	0	5	0.00442	5.81	0.00442	5.81	No
4-Chlorophenyl phenyl ether	64	0	0%	0	NR	0.00489	1.16	0.00489	1.16	No
4-Methylphenol (m-cresol)	64	16	25%	0	4,000	0.00742	1.16	0.0286	0.891	No
4-Nitrophenol	64	10	16%	0	NR	0.00744	5.81	0.115	0.97	No
Aniline	64	4	6%	0	175	0.00563	2.32	0.0875	0.47	No
Azobenzene	64	0	0%	0	9.09	0.00544	1.16	0.00544	1.16	No
Benzoic Acid	64	19	30%	0	320,000	0.0000215	2.32	0.15	1.18	No
Benzyl alcohol	64	1	2%	0	8,000	0.00911	1.16	0.154	0.154	No
Benzyl Butyl phthalate	64	3	5%	0	526	0.0136	1.16	0.0967	0.13	No
bis (2-Ethylhexyl) adipate	57	1	1.7%	0	NR	0.0109	1.16	2.77	2.77	No
bis (2-Ethylhexyl) phthalate	64	17	27%	0	71.4	0.01	1.16	0.0449	1.26	No
Bis (2-chloroethoxy) methane	64	9	14%	0	NR	0.00828	1.16	0.0187	38.9	No
Bis (2-chloroethyl) ether	64	0	0%	0	NR	0.00722	2.32	0.00722	2.32	No
Bis (2-chloroisopropyl) ether	64	0	0%	0	NE	0.00827	1.16	0.00827	1.16	No
Carbazole	64	0	0%	0	NE	0.0136	5.17	0.0136	5.17	No
Dibenzofuran	64	20	31%	0	80	0.0193	1.03	0.0301	133	No
Diethylphthalate	64	15	23%	0	NR	0.00852	1.16	0.0207	0.144	No
Dimethylphthalate	64	7	11%	0	NR	0.00853	1.16	0.0642	7.92	No
Di-n-butylphthalate	64	19	30%	0	NR	0.00193	1.16	0.032	2.5	No

**Table 40. Potential Indicator Hazardous Substance Evaluation for Soil  
Semi-volatile organic compounds by EPA Method 8270**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?
Di-n-octyl phthalate	64	2	3%	0	800	0.00634	0.93	0.118	110	No
Diphenylamine	64	2	3%	0	2,000	0.00698	5.81	0.0992	0.282	No
Hexachlorobenzene	64	0	0%	0	0.625	0.0065	1.16	0.0065	1.16	No
Hexachlorobutadiene	64	0	0%	0	12.8	0.00959	1.16	0.00959	1.16	No
Hexachlorocyclopentadiene	64	0	0%	0	480	0.00769	1.16	0.00769	1.16	No
Hexachloroethane	64	0	0%	0	25	0.0161	1.16	0.0161	1.16	No
Isophorone	64	7	11%	0	1,050	0.0039	1.16	0.0125	0.07	No
Nitrobenzene	64	0	0%	0	160	0.00965	2.32	0.00965	2.32	No
N-Nitroso-di-n-propylamine	64	0	0%	0	0.143	0.0158	1.16	0.0158	1.16	No
Pentachlorophenol	64	3	4.6%	0	2.5	0.00846	1.16	0.0853	0.76	No
Phenol	64	8	13%	0	24,000	0.0021	2.32	0.0182	0.759	No

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

**Table 40. Potential Indicator Hazardous Substance Evaluation for Soil  
Semi-volatile organic compounds by EPA Method 8270**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Rational Inclusion or Exclusion as an IHS
1,2,4-Trichlorobenzene	64	0	0%	0	Analyte not detected
1,2-Dichlorobenzene	64	0	0%	0	Analyte not detected
1,2-Dinitrobenzene	57	0	0%	0	Analyte not detected
1,3-Dichlorobenzene	64	0	0%	0	Analyte not detected
1,3-Dinitrobenzene	64	0	0%	0	Analyte not detected
1,4-Dichlorobenzene	64	0	0%	0	Analyte not detected
1,4-Dinitrobenzene	64	0	0%	0	Analyte not detected
1-Methylnaphthalene	87	44	51%	2	Analyte exceeded the cleanup level
2,3,4,6-Tetrachlorophenol	64	0	0%	0	Analyte not detected
2,3,5,6-Tetrachlorophenol	64	0	0%	0	Analyte not detected
2,4,5-Trichlorophenol	64	0	0%	0	Analyte not detected
2,4,6-Trichlorophenol	64	0	0%	0	Analyte not detected
2,4-Dichlorophenol	64	0	0%	0	Analyte not detected
2,4-Dimethylphenol	64	1	1.7%	0	Frequency of detection
2,4-Dinitrophenol	64	2	3%	0	Frequency of detection
2,4-Dinitrotoluene	64	0	0%	0	Analyte not detected
2,6-Dinitrotoluene	64	0	0%	0	Analyte not detected
2-Chloronaphthalene	64	0	0%	0	Analyte not detected
2-Chlorophenol	64	0	0%	0	Analyte not detected
2-Methylnaphthalene	87	48	55%	0	Analyte did not exceed the cleanup level
2-Methylphenol (o-cresol)	64	2	3%	0	Frequency of detection
2-Nitroaniline	64	0	0%	0	Analyte not detected
2-Nitrophenol	64	21	33%	0	Analyte did not exceed the cleanup level
3-Methylphenol (p-cresol)	64	14	22%	0	Analyte did not exceed the cleanup level
3-Nitroaniline	64	0	0%	0	Analyte not detected
4,6-Dinitro-2-methylphenol	64	0	0%	0	Analyte not detected
4-Bromo phenyl phenyl ether	64	0	0%	0	Analyte not detected
4-Chloro-3-methylphenol	64	0	0%	0	Analyte not detected
4-Chloroaniline	64	0	0%	0	Analyte not detected
4-Chlorophenyl phenyl ether	64	0	0%	0	Analyte not detected
4-Methylphenol (m-cresol)	64	16	25%	0	Analyte did not exceed the cleanup level
4-Nitrophenol	64	10	16%	0	Analyte did not exceed the cleanup level
Aniline	64	4	6%	0	Analyte did not exceed the cleanup level
Azobenzene	64	0	0%	0	Analyte not detected
Benzoic Acid	64	19	30%	0	Analyte did not exceed the cleanup level
Benzyl alcohol	64	1	2%	0	Analyte did not exceed the cleanup level
Benzyl Butyl phthalate	64	3	5%	0	Analyte did not exceed the cleanup level
bis (2-Ethylhexyl) adipate	57	1	1.7%	0	Frequency of detection
bis (2-Ethylhexyl) phthalate	64	17	27%	0	Analyte did not exceed the cleanup level
Bis (2-chloroethoxy) methane	64	9	14%	0	Analyte did not exceed the cleanup level
Bis (2-chloroethyl) ether	64	0	0%	0	Analyte not detected
Bis (2-chloroisopropyl) ether	64	0	0%	0	Analyte not detected
Carbazole	64	0	0%	0	Analyte not detected
Dibenzofuran	64	20	31%	0	Analyte did not exceed the cleanup level
Diethylphthalate	64	15	23%	0	Analyte did not exceed the cleanup level
Dimethylphthalate	64	7	11%	0	Analyte did not exceed the cleanup level
Di-n-butylphthalate	64	19	30%	0	Analyte did not exceed the cleanup level

**Table 40. Potential Indicator Hazardous Substance Evaluation for Soil  
Semi-volatile organic compounds by EPA Method 8270**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Rational Inclusion or Exclusion as an IHS
Di-n-octyl phthalate	64	2	3%	0	Frequency of detection
Diphenylamine	64	2	3%	0	Frequency of detection
Hexachlorobenzene	64	0	0%	0	Analyte not detected
Hexachlorobutadiene	64	0	0%	0	Analyte not detected
Hexachlorocyclopentadiene	64	0	0%	0	Analyte not detected
Hexachloroethane	64	0	0%	0	Analyte not detected
Isophorone	64	7	11%	0	Analyte did not exceed the cleanup level
Nitrobenzene	64	0	0%	0	Analyte not detected
N-Nitroso-di-n-propylamine	64	0	0%	0	Analyte not detected
Pentachlorophenol	64	3	4.6%	0	Frequency of detection
Phenol	64	8	13%	0	Analyte did not exceed the cleanup level

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte



**Table 41. Potential Indicator Hazardous Substance Evaluation for Soil Hydrocarbons by NWTPH Methods**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Diesel (Fuel Oil)	48	4	8%	0	2,000	2.74	76.5	2.73	1,530	No	Analyte did not exceed the cleanup level
Heavy Oil <sup>2</sup>	48	28	58%	0	2,000	8.12	75.3	18.7	1,500	No	Analyte did not exceed the cleanup level
Diesel Range Organics	14	14	100%	1	2,000	All Detect	All Detect	31.3	2,100	Yes	Analyte did not exceed the cleanup level
Gasoline	6	5	83%	0	100	6.09	6.09	10.4	54.7	No	Analyte did not exceed the cleanup level

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

<sup>2</sup> = Method A Cleanup Level Used for This Analyte

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

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**Table 42. Potential Indicator Hazardous Substance Evaluation for Soil  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Aroclor 1016	27	1	4%	0	0.5	0.00851	0.285	0.219	0.219	No	Analyte did not exceed the cleanup level
Aroclor 1221	27	0	0%	0	0.5	0.00851	0.285	0.00851	0.285	No	Analyte not detected
Aroclor 1232	27	0	0%	0	0.5	0.00851	0.285	0.00851	0.285	No	Analyte not detected
Aroclor 1242	27	0	0%	0	0.5	0.00851	0.285	0.00851	0.285	No	Analyte not detected
Aroclor 1248	27	0	0%	0	0.5	0.00539	0.285	0.00539	0.285	No	Analyte not detected
Aroclor 1254	27	6	22%	1	0.5	0.00729	0.285	0.0570	0.558	Yes	Analyte exceeded the cleanup level
Aroclor 1260	27	0	0%	0	0.5	0.00817	0.285	0.00817	0.285	No	Analyte not detected

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values in milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

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Table 43. Potential Indicator Hazardous Substance Evaluation for Soil Metals by EPA Method 6020/200.8

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Antimony	48	38	79%	0	32	0.156	0.267	0.17	11.1	No	Analyte did not exceed the cleanup level
Arsenic	104	104	100%	15	24	All Detect	All Detect	2.5	155	Yes	Analyte exceeded the cleanup level
Beryllium	48	46	96%	0	160	0.170	0.281	0.178	12.1	No	Analyte did not exceed the cleanup level
Cadmium	48	41	85%	0	80	0.156	0.267	0.198	1.530	No	Analyte did not exceed the cleanup level
Chromium	48	48	100%	0	120,000	All Detect	All Detect	11.7	200	No	Analyte did not exceed the cleanup level
Copper	116	116	100%	77	36	All Detect	All Detect	11.8	945	Yes	Analyte exceeded the cleanup level
Lead	86	86	100%	7	250	All Detect	All Detect	4.12	678	Yes	Analyte exceeded the cleanup level
Mercury <sup>2</sup>	48	5	10%	1	2	0.028	0.614	0.256	4.85	Yes	Analyte exceeded the cleanup level
Nickel	48	48	100%	0	11	All Detect	All Detect	14.6	129	Yes	Analyte exceeded the cleanup level
Selenium	48	9	19%	0	400	0.391	1.07	0.481	7.05	No	Analyte did not exceed the cleanup level
Silver	48	21	44%	0	400	0.0782	0.215	0.081	0.293	No	Analyte did not exceed the cleanup level
Thallium	48	35	73%	1	0.8	0.156	0.430	0.197	3.012	Yes	Concentration > 2 x CUL
Zinc	48	48	100%	0	26,000	All Detect	All Detect	20.70	1,300	No	Analyte did not exceed the cleanup level

**NOTES:**

Cleanup Levels, Reporting Limits, and Detection Values in milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

<sup>2</sup> = Method A Cleanup Level used for this analyte

NR = Not Reported, Analyte Not Listed on CLARC Master Table

**Table 44. Potential Indicator Hazardous Substance Evaluation for Soil  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Acenaphthene	87	38	44%	0	4,800	0.000360	1.1000	0.006	152	No	Analyte did not exceed the cleanup level
Acenaphthylene	87	36	41%	0	NE	0.000240	1.1000	0.01	17.3	No	Analyte did not exceed the cleanup level
Anthracene	87	46	53%	0	24,000	0.00225	1.1000	0.0066	157	No	Analyte did not exceed the cleanup level
Benzo [a] anthracene	103	75	73%	32	0.129	0.0146	0.7160	0.0149	290	Yes	Analyte exceeded the cleanup level
benzo [a] pyrene	103	71	69%	30	0.349	0.00995	0.7160	0.011	169	Yes	Analyte exceeded the cleanup level
benzo [b] fluoranthene	103	73	71%	45	1.37	0.0154	0.7160	0.021	337	Yes	Analyte exceeded the cleanup level
Benzo [g,h,i] perylene	87	42	48%	0	1.4	0.00663	0.7160	0.0097	61.9	No	Analyte did not exceed the cleanup level
benzo [k] fluoranthene	103	66	64%	26	13.7	0.00813	0.7160	0.0075	333	Yes	Analyte exceeded the cleanup level
Chrysene	103	74	72%	36	0.143	0.00326	0.7160	0.0096	256	Yes	Analyte exceeded the cleanup level
Dibenzo [a,h] anthracene	103	34	33%	6	0.644	0.00100	0.7160	0.0153	19	Yes	Analyte exceeded the cleanup level
Fluoranthene	87	62	71%	0	3,200	0.0427	0.8950	0.0306	816	No	Analyte did not exceed the cleanup level
Fluorene	87	44	51%	0	3,200	0.000148	1.1000	0.0058	275	No	Analyte did not exceed the cleanup level
Indeno [1,2,3-cd] pyrene	103	55	53%	15	1.37	0.00070	0.7160	0.0079	55	Yes	Analyte exceeded the cleanup level
Naphthalene	87	48	55%	0	1,600	0.000347	0.895	0.0229	492	No	Analyte did not exceed the cleanup level
Phenanthrene	87	57	66%	0	NE	0.0909	0.895	0.0293	739	No	Analyte did not exceed the cleanup level
Pyrene	87	60	69%	0	2,400	0.0427	0.895	0.0265	792	No	Analyte did not exceed the cleanup level

**NOTES:**

Cleanup Levels, Reporting Limits, and Detection Values In milligrams per kilogram (mg/kg)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Soil Cleanup Level, CLARC July 2015 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

Table 45. Indicator Hazardous Substance Evaluation for Water  
Volatile Organic Compounds by EPA 8260

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
1,1,1,2-Tetrachloroethane	19	0	0%	0	1.68	0.135	1.00	0.135	--	No	Analyte not detected above MRL
1,1,1-Trichloroethane (TCA)	19	0	0%	0	16,000	0.147	1.00	0.147	--	No	Analyte not detected above MRL
1,1,2,2-Tetrachloroethane	19	0	0%	0	0.219	0.202	1.00	0.202	--	No	Analyte not detected above MRL
1,1,2-Trichloroethane	19	0	0%	0	0.768	0.055	1.00	0.055	--	No	Analyte not detected above MRL
1,1-Dichloroethane	19	0	0%	0	7.68	0.048	1.00	0.048	--	No	Analyte not detected above MRL
1,1-Dichloroethene	19	0	0%	0	NR	0.039	1.00	0.039	--	No	Analyte not detected above MRL
1,1-Dichloropropene	19	0	0%	0	NR	0.091	1.00	0.091	--	No	Analyte not detected above MRL
1,2,3-Trichlorobenzene	19	0	0%	0	NR	0.080	4.00	0.080	--	No	Analyte not detected above MRL
1,2,3-Trichloropropane	19	0	0%	0	24	0.124	1.00	0.124	--	No	Analyte not detected above MRL
1,2,4-Trichlorobenzene	19	0	0%	0	1.51	0.092	2.00	0.092	--	No	Analyte not detected above MRL
1,2,4-Trimethylbenzene	19	1	5%	0	NE	0.053	1.00	1.33	--	No	Analyte not detected above MRL
1,2-Dibromo-3-Chloropropane	19	0	0%	0	0.0547	0.361	1.00	0.361	--	No	Analyte not detected above MRL
1,2-Dibromoethane (EDB)	19	0	0%	0	0.0219	0.01	0.031	0.01	--	No	Analyte not detected above MRL
1,2-Dichlorobenzene	19	0	0%	0	720	0.065	1.00	0.065	--	No	Analyte not detected above MRL
1,2-Dichloroethane (EDC)	19	0	0%	0	0.481	0.054	1.00	0.054	--	No	Analyte not detected above MRL
1,2-Dichloropropane	19	0	0%	0	1.22	0.078	1.00	0.078	--	No	Analyte not detected above MRL
1,3,5-Trimethylbenzene	19	0	0%	0	80	0.054	1.00	0.054	--	No	Analyte not detected above MRL
1,3-Dichlorobenzene	19	0	0%	0	NE	0.123	1.00	0.123	--	No	Analyte not detected above MRL
1,3-Dichloropropane	19	0	0%	0	0.438	0.056	1.00	0.056	--	No	Analyte not detected above MRL
1,4-Dichlorobenzene	19	0	0%	0	8.1	0.035	1.00	0.035	--	No	Analyte not detected above MRL
2,2-Dichloropropane	19	0	0%	0	NR	0.116	2.00	0.116	--	No	Analyte not detected above MRL
2-Chlorotoluene	19	0	0%	0	160	0.063	1.00	0.063	--	No	Analyte not detected above MRL
4-Chlorotoluene	19	0	0%	0	160	0.035	1.00	0.035	--	No	Analyte not detected above MRL
4-Isopropyltoluene	19	1	5%	0	NR	1.00	1.00	0.87	--	No	Analyte not detected above MRL
Benzene	19	0	0%	0	0.795	0.057	1.00	0.057	--	No	Analyte not detected above MRL
Bromobenzene	19	0	0%	0	NR	0.132	1.00	0.132	--	No	Analyte not detected above MRL
Bromodichloromethane	19	0	0%	0	0.706	0.052	1.00	0.052	--	No	Analyte not detected above MRL
Bromoform	19	0	0%	0	5.54	0.093	1.00	0.093	--	No	Analyte not detected above MRL
Bromomethane	19	0	0%	0	11.2	0.125	1.00	0.125	--	No	Analyte not detected above MRL
Carbon tetrachloride	19	0	0%	0	0.625	0.094	1.00	0.094	--	No	Analyte not detected above MRL
Chlorobenzene	19	0	0%	0	160	0.030	1.00	0.030	--	No	Analyte not detected above MRL
Chloroethane	19	0	0%	0	NR	0.106	1.00	0.106	--	No	Analyte not detected above MRL
Chloroform	19	0	0%	0	1.41	0.059	1.00	0.059	--	No	Analyte not detected above MRL
Chloromethane	19	0	0%	0	NE	0.155	1.00	0.155	--	No	Analyte not detected above MRL
cis-1,2-Dichloroethane	19	0	0%	0	NE	0.087	1.00	0.087	--	No	Analyte not detected above MRL
cis-1,3-Dichloropropene	19	0	0%	0	NE	0.059	1.00	0.059	--	No	Analyte not detected above MRL
Dibromochloromethane	19	0	0%	0	0.521	0.051	1.00	0.051	--	No	Analyte not detected above MRL
Dibromomethane	19	0	0%	0	NE	0.091	1.00	0.091	--	No	Analyte not detected above MRL
Dichlorodifluoromethane (CFC-12)	19	0	0%	0	1,600	0.121	1.00	0.121	--	No	Analyte not detected above MRL
Ethylbenzene	19	2	11%	0	800	0.048	1.00	1.3	--	No	Analyte not detected above MRL
Hexachloro-1,3-butadiene	19	0	0%	0	0.561	0.163	4.00	0.163	--	No	Analyte not detected above MRL
Isopropylbenzene	19	0	0%	0	NE	0.035	1.00	0.035	--	No	Analyte not detected above MRL
m,p Xylenes	19	1	5%	0	1,600	0.067	1.00	2.32	--	No	Analyte not detected above MRL
Methylene chloride	19	0	0%	0	21.9	0.064	1.00	0.064	--	No	Analyte not detected above MRL
Naphthalene	19	6	32%	0	160	1.00	1.00	1.95	--	No	Analyte not detected above MRL
n-Butylbenzene	19	0	0%	0	400	0.052	1.00	0.052	--	No	Analyte not detected above MRL
n-Propylbenzene	19	0	0%	0	800	0.033	1.00	0.033	--	No	Analyte not detected above MRL
o Xylene	19	1	5%	0	1,600	0.040	1.00	1.7	--	No	Analyte not detected above MRL
sec-Butylbenzene	19	0	0%	0	800	0.033	1.00	0.033	--	No	Analyte not detected above MRL
Styrenes	19	0	0%	0	1,600	0.035	1.00	0.035	--	No	Analyte not detected above MRL
tert-Butylbenzene	19	0	0%	0	800	0.046	1.00	0.046	--	No	Analyte not detected above MRL
Tetrachloroethene (PCE)	19	0	0%	0	20.8	0.051	1.00	0.051	--	No	Analyte not detected above MRL
Toluene	19	2	11%	0	640	0.044	1.00	1.41	--	No	Analyte not detected above MRL
Total Xylenes	19	1	5%	0	1,600	0.107	2.00	4.02	--	No	Analyte not detected above MRL
trans-1,2-Dichloroethane	19	0	0%	0	160	0.063	1.00	0.063	--	No	Analyte not detected above MRL
Trans-1,3-Dichloropropene	19	0	0%	0	0.438	0.039	1.00	0.039	--	No	Analyte not detected above MRL
Trichloroethene (TCE)	19	0	0%	0	0.54	0.166	1.00	0.166	--	No	Analyte not detected above MRL
Trichlorofluoromethane (CFC-11)	19	0	0%	0	2,400	0.021	1.00	0.021	--	No	Analyte not detected above MRL
Vinyl chloride	19	0	0%	0	24	0.061	0.20	0.061	--	No	Analyte not detected above MRL

Notes:

Cleanup Levels, Reporting Limits, and Detection Values in Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

Table 46. Indicator Hazardous Substance Evaluation for Water  
Semi-volatile organic compounds by EPA Method 8270

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
1,2,4-Trichlorobenzene	42	0	0%	0	1.51	0.0114	1.00	0.0114	1.00	No	Analyte not detected
1,2-Dichlorobenzene	42	0	0%	0	720	0.0151	1.00	0.0151	1.00	No	Analyte not detected
1,2-Dinitrobenzene	42	0	0%	0	NR	0.0214	1.00	0.0214	1.00	No	Analyte not detected
1,3-Dichlorobenzene	42	0	0%	0	NE	0.00810	1.00	0.00810	1.00	No	Analyte not detected
1,3-Dinitrobenzene	42	0	0%	0	NR	0.0793	5.00	0.0793	5.00	No	Analyte not detected
1,4-Dichlorobenzene	42	0	0%	0	8.1	0.0161	1.00	0.0161	1.00	No	Analyte not detected
1,4-Dinitrobenzene	42	0	0%	0	NR	0.11	5.00	0.11	5.00	No	Analyte not detected
1-Methylnaphthalene	44	19	43%	5	1.51	0.100	0.500	0.0224	4.0	Yes	Analyte exceeded the cleanup level
2,3,4,6-Tetrachlorophenol	42	1	2%	0	480	0.00915	1.00	2.49	2.49	No	Analyte did not exceed the cleanup level
2,3,5,6-Tetrachlorophenol	42	1	2%	0	NE	0.0177	1.00	2.49	2.49	No	Frequency of Detection
2,4,5-Trichlorophenol	42	0	0%	0	800	0.0452	2.00	0.0452	2.00	No	Analyte not detected
2,4,6-Trichlorophenol	42	0	0%	0	3.98	0.0171	2.00	0.0171	2.00	No	Analyte not detected
2,4-Dichlorophenol	42	0	0%	0	24	0.0167	2.00	0.0167	2.00	No	Analyte not detected
2,4-Dimethylphenol	42	6	13%	0	160	0.0101	1.00	0.0923	1.1	No	Analyte did not exceed the cleanup level
2,4-Dinitrophenol	42	0	0%	0	32	0.122	2.00	0.122	2.00	No	Analyte not detected
2,4-Dinitrotoluene	42	0	0%	0	0.282	0.0128	1.00	0.0128	1.00	No	Analyte not detected
2,6-Dinitrotoluene	42	0	0%	0	0.0583	0.0118	1.00	0.0118	1.00	No	Analyte not detected
2-Chloronaphthalene	42	0	0%	0	NR	0.012	1.00	0.012	1.00	No	Analyte not detected
2-Chlorophenol	42	0	0%	0	40	0.0157	1.00	0.0157	1.00	No	Analyte not detected
2-Methylnaphthalene	46	17	39%	0	32	0.00148	0.50	0.0652	6.55	No	Analyte did not exceed the cleanup level
2-Methylphenol (o-cresol)	42	2	5%	0	400	0.0209	1.00	0.600	7.59	No	Analyte did not exceed the cleanup level
2-Nitroaniline	42	0	0%	0	160	0.0231	2.00	0.0231	2.00	No	Analyte not detected
2-Nitrophenol	42	0	0%	0	NR	0.0194	2.00	0.0194	2.00	No	Analyte not detected
3-Methylphenol (m-cresol)	6	0	0%	0	400	0.0568	0.0568	0.0568	0.0568	No	Analyte not detected
3-Nitroaniline	42	0	0%	0	NR	0.0245	5.00	0.0245	5.00	No	Analyte not detected
4,6-Dinitro-2-methylphenol	42	0	0%	0	NR	0.0482	2.00	0.0482	2.00	No	Analyte not detected
4-Bromo phenyl phenyl ether	42	0	0%	0	NR	0.0210	1.00	0.0210	1.00	No	Analyte not detected
4-Chloro-3-methylphenol	42	0	0%	0	NR	0.0131	5.00	0.0131	5.00	No	Analyte not detected
4-Chloroaniline	42	0	0%	0	NR	0.0071	5.00	0.0071	5.00	No	Analyte not detected
4-Chlorophenyl phenyl ether	42	0	0%	0	NR	0.0183	1.00	0.0183	1.00	No	Analyte not detected
4-Methylphenol (p-cresol)	42	7	17%	0	800	0.0563	1.00	0.0366	3.98	No	Analyte not detected
4-Nitrophenol	42	0	0%	0	NR	0.108	5.00	0.108	5.00	No	Analyte not detected
Aniline	42	0	0%	0	7.68	0.0111	2.00	0.0111	2.00	No	Analyte not detected
Azobenzene	41	0	0%	0	0.795	0.00772	1.00	0.00772	1.00	No	Analyte not detected
Benzoic Acid	42	8	19%	0	64,000	0.0503	2.00	0.451	42.5	No	Analyte not detected
Benzyl alcohol	42	0	0%	0	800	0.0164	1.00	0.0164	1.00	No	Analyte not detected
Benzyl butyl phthalate	42	0	0%	0	46.1	0.0552	1.00	0.0552	1.00	No	Analyte not detected
bis (2-Ethylhexyl) adipate	42	6	14%	0	NR	0.0106	1.00	0.624	1.14	No	Analyte did not exceed the cleanup level
bis (2-Ethylhexyl) phthalate	42	14	33%	1	6.25	1.00	1.00	0.208	16.9	No	Analyte did not exceed the cleanup level
Bis(2-chloroethoxy)methane	42	0	0%	0	NR	0.0136	1.00	0.0136	1.00	No	Analyte not detected
Bis(2-chloroethyl)ether	42	0	0%	0	0.0398	0.0161	2.00	0.0161	2.00	No	Analyte not detected
Bis(2-chloroisopropyl)ether	42	0	0%	0	NE	0.0162	1.00	0.0162	1.00	No	Analyte not detected
Carbazole	42	5	12%	0	NE	0.0553	5.00	0.100	0.481	No	Analyte did not exceed the cleanup level
Dibenzofuran	42	5	12%	0	16	0.0131	1.00	0.0532	1.35	No	Analyte did not exceed the cleanup level
Diethylphthalate	42	0	0%	0	12,800	0.0347	1.00	0.0347	1.00	No	Analyte not detected
Dimethylphthalate	40	3	18%	0	NE	0.00871	1.00	0.0267	2.26	No	Analyte did not exceed the cleanup level
Di-n-butylphthalate	42	15	36%	0	NR	1.00	1.00	0.111	1.57	No	Analyte did not exceed the cleanup level
Di-n-octyl phthalate	42	2	5%	0	160	0.00659	1.00	1.04	1.74	No	Analyte did not exceed the cleanup level
Diphenylamine	42	0	0%	0	400	0.00797	5.00	0.00797	5.00	No	Analyte not detected
Hexachloro-1,3-butadiene	37	0	0%	0	0.561	0.039	1.00	0.039	1.00	No	Analyte not detected
Hexachlorobenzene	42	0	0%	0	0.0547	0.0195	1.00	0.0195	1.00	No	Analyte not detected
Hexachlorobutadiene	42	0	0%	0	0.561	0.0139	1.00	0.0139	1.00	No	Analyte not detected
Hexachlorocyclopentadiene	42	0	0%	0	48	0.0139	1.00	0.0139	1.00	No	Analyte not detected
Hexachloroethane	42	0	0%	0	1.09	0.0653	1.00	0.0653	1.00	No	Analyte not detected
Isophorone	42	0	0%	0	46.1	0.00837	1.00	0.00837	1.00	No	Analyte not detected
Nitrobenzene	42	0	0%	0	16	0.0358	2.00	0.0358	2.00	No	Analyte not detected
N-Nitroso-di-n-propylamine	42	0	0%	0	0.0125	0.0134	1.00	0.0134	1.00	No	Analyte not detected
Pentachlorophenol	42	2	2%	2	0.219	0.109	2.00	0.292	16.8	No	Frequency of detection
Phenol	42	2	2%	0	2,400	0.0111	2.00	0.125	15.3	No	Analyte did not exceed the cleanup level

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

**Table 47. Indicator Hazardous Substance Evaluation for Water  
Hydrocarbons by NWTPH Methods**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Diesel (Fuel Oil)	19	1	5%	0	500 <sup>2</sup>	9.81	50	22.9	22.9	No	Analyte did not exceed the cleanup level
Heavy Oil	19	10	53%	3	500 <sup>2</sup>	64	100	72.5	1,420	Yes	Analyte exceeded the cleanup level
Diesel Range Organics	13	13	100%	2	500 <sup>2</sup>	All Detects	All Detects	52.3	8,100	Yes	Analyte exceeded the cleanup level
Gasoline	17	5	29%	0	1,000 <sup>2</sup> /800 <sup>2</sup>	0.5	50	2.17	32.8	No	Analyte did not exceed the cleanup level
Gasoline Range Organics	5	5	100%	0	1,000 <sup>2</sup> /800 <sup>2</sup>	All Detects	All Detects	82.2	862	No	Analyte did not exceed the cleanup level

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values In Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

<sup>2</sup> = Method A Cleanup Level Used for This Analyte

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

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**Table 48. Indicator Hazardous Substance Evaluation for Water  
Polychlorinated biphenyls (PCBs) by EPA Method 8082**

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Aroclor 1016	21	0	0%	0	0.038	0.0160	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Aroclor 1221	21	0	0%	0	0.038	0.0160	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Aroclor 1232	21	0	0%	0	0.038	0.0160	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Aroclor 1242	21	0	0%	0	0.038	0.0160	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Aroclor 1248	21	0	0%	0	0.038	0.0101	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Aroclor 1254	21	3	14%	3	0.038	0.0136	0.200	0.437	1.23	Yes	Analyte exceeded the cleanup level
Aroclor 1260	21	0	0%	0	0.038	0.0154	0.200	0.1	0.1	No	Analyte did not exceed the cleanup level
Total PCBs	21	3	14%	3	0.038	0.0160	0.200	0.437	1.23	Yes	Analyte exceeded the cleanup level

**Notes:**

Cleanup Levels, Reporting Limits, and Detection Values in Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

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Table 49. Indicator Hazardous Substance Evaluation for Water  
Metals in water by EPA Method 6020/200.8

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Antimony - Dissolved	18	10	56%	0	6.4	0.200	0.200	0.239	0.765	No	Analyte did not exceed the cleanup level
Antimony - Total	11	8	73%	0		0.200	0.200	0.247	1.87	No	Analyte did not exceed the cleanup level
Arsenic - Dissolved	42	40	65%	40	0.0583	0.266	1.0	0.743	425	Yes	Analyte exceeded the cleanup level
Arsenic - Total	11	2	18%	2		1.00	1.00	17.7	99.4	Yes	Analyte exceeded the cleanup level
Beryllium - Dissolved	18	15	83%	0	32	0.200	0.200	2.94	14.8	No	Analyte did not exceed the cleanup level
Beryllium - Total	11	11	100%	0		All Detect	All Detect	2.69	8.24	No	Analyte did not exceed the cleanup level
Cadmium - Dissolved	18	0	0%	0	NE	0.200	0.200	0.200	0.200	No	Analyte not detected
Cadmium - Total	11	0	0%	0		0.200	0.200	0.200	0.200	No	Analyte not detected
Chromium III - Dissolved	17	17	100%	0	24,000	All Detect	All Detect	4.57	35.8	No	Analyte did not exceed the cleanup level
Chromium III - Total	11	11	100%	0		All Detect	All Detect	2.73	25.3	No	Analyte did not exceed the cleanup level
Chromium VI** - Dissolved	5	0	0%	0	48	0.0500	0.0500	0.0500	0.0500	No	Analyte not detected
Chromium VI** - Total	0	0	0%	N/A		N/A	N/A	N/A	N/A	No	Analyte not detected
Copper - Dissolved	61	51	84%	23	3.1	0.117	0.500	0.292	27	Yes	Analyte exceeded the cleanup level
Copper - Total	11	11	100%	11		All Detect	All Detect	4.63	66.3	Yes	Analyte exceeded the cleanup level
Mercury - Dissolved	18	1	6%	0	2	0.100	0.100	0.151	0.151	No	Analyte did not exceed the cleanup level
Mercury - Total	11	0	0%	0		0.100	0.100	0.100	0.100	No	Analyte did not exceed the cleanup level
Nickel - Dissolved	19	17	89%	0	NR	0.500	0.500	0.972	24.2	No	Analyte did not exceed the cleanup level
Nickel - Total	11	11	100%	0		All Detect	All Detect	1.38	7.58	No	Analyte did not exceed the cleanup level
Selenium - Dissolved	18	0	0%	0	80	1.00	1.00	3.12	3.18	No	Analyte not detected
Selenium - Total	11	0	0%	0		1.00	1.00	1.00	1.00	No	Analyte not detected
Silver - Dissolved	18	3	17%	0	80	0.200	0.200	0.270	0.486	No	Analyte did not exceed the cleanup level
Silver - Total	11	0	0%	0		0.200	0.200	0.200	0.200	No	Analyte not detected
Thallium - Dissolved	18	0	0%	0	NR	0.200	0.200	0.200	0.200	No	Analyte not detected
Thallium - Total	11	0	0%	0		0.200	0.200	0.200	0.200	No	Analyte not detected
Zinc - Dissolved	20	17	85%	0	4,800	1.5	1.5	2.00	6.49	No	Analyte did not exceed the cleanup level
Zinc - Total	14	14	100%	0		All Detect	All Detect	5.94	263	No	Analyte did not exceed the cleanup level

**NOTES:**

Cleanup Levels, Reporting Limits, and Detection Values In Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

Table 50. Indicator Hazardous Substance Evaluation for Water  
Polycyclic Aromatic Hydrocarbon (PAH) compounds by EPA Method 8270

Analyte	Number of Samples	Number of Detections	Frequency of Detection	Number of Detections Exceeding Cleanup Levels	Cleanup Level <sup>1</sup>	Minimum Reporting Limit	Maximum Reporting Limit	Minimum Detection	Maximum Detection	Chemical Selected as an IHS?	Rational Inclusion or Exclusion as an IHS
Acenaphthene	44	27	61%	0	960	0.100	0.500	0.453	3.4	No	Analyte did not exceed the cleanup level
Acenaphthylene	44	4	9%	0	NE	0.003977	0.500	0.0302	0.0429	No	Analyte did not exceed the cleanup level
Anthracene	44	13	30%	0	4.800	0.0088	0.500	0.0138	1.85	No	Analyte did not exceed the cleanup level
Benzo [a] anthracene	44	8	18%	2	0.120	0.0118	0.500	0.0458	1.53	Yes	Analyte exceeded the cleanup level
benzo [a] pyrene	44	2	4.5%	2	0.012	0.0238	0.500	0.0343	0.0647	Yes	Analyte exceeded the cleanup level
benzo [b] fluoranthene	44	4	9%	0	0.120	0.0202	0.500	0.0101	0.0875	No	Analyte did not exceed the cleanup level
Benzo [g,h,i] perylene	44	2	4.5%	0	NE	0.0260	0.500	0.0173	0.835	No	Analyte did not exceed the cleanup level
benzo [k] fluoranthene	44	2	4.5%	0	1.2	0.0206	0.500	0.0273	0.0424	No	Analyte did not exceed the cleanup level
Chrysene	44	6	14%	0	12	0.00779	0.500	0.0246	0.114	No	Analyte did not exceed the cleanup level
Dibenzo [a,h] anthracene	44	2	4.5%	2	0.012	0.0295	0.500	0.0134	0.0397	Yes	Analyte exceeded the cleanup level
Fluoranthene	44	16	37%	0	640	0.100	0.500	0.0291	3.46	No	Analyte did not exceed the cleanup level
Fluorene	44	21	48%	0	640	0.100	0.500	0.0379	2.37	No	Analyte did not exceed the cleanup level
Indeno [1,2,3-cd] pyrene	44	2	4.5%	0	0.120	0.0295	0.500	0.0155	0.0689	No	Analyte did not exceed the cleanup level
Naphthalene	44	12	27%	0	160	0.100	0.500	0.0572	14.6	No	Analyte did not exceed the cleanup level
Phenanthrene	44	21	48%	0	NE	0.100	0.500	0.0378	3.57	No	Analyte did not exceed the cleanup level
Pyrene	44	14	32%	0	480	0.100	0.500	0.0222	3.22	No	Analyte did not exceed the cleanup level

**NOTES:**

Cleanup Levels, Reporting Limits, and Detection Values in Micrograms per Liter (µg/L)

<sup>1</sup> = Cleanup Level Based on Most Stringent Method B Groundwater Cleanup Level, CLARC May 2014 Master Table

NR = Not Reported, Analyte Not Listed on CLARC Master Table

NE = Not Established, No Method B Value Listed on CLARC Master Table for Analyte

Table 51. Detailed Cost Estimate - Alternative 1

Unit Descriptions	Based on Excavation of 1200 cubic yards (1600 tons)			NOTES
	Cost Per Unit (2013 Rate Table 1)	Estimated Units	Total Cost	
<b>Stantec Labor - Remedial Excavation</b>				
Project Scientist	\$110.00	965.00	\$106,150.00	
Project Manager	\$160.00	375.00	\$60,000.00	
Technician CAD Support	\$81.00	185.00	\$14,985.00	
Technician Assistant / Clerical	\$81.00	100.00	\$8,100.00	
<b>Stantec Labor - Groundwater Sampling</b>				
Sampling Labor - Groundwater	\$110.00	69.00	\$7,590.00	
<b>Total Cost:</b>			<b>\$196,825.00</b>	
<b>Laboratory Analytical</b>	Fremont Analytical Rates do not include Stantec Markup			
<b>SOIL</b> - up to 60 soil confirmation samples				
PAHs (Full Scan)	\$150 for 5-day TAT			
Metals	\$75 for 5-day TAT			
NWTPH-Dx	\$60 for 5-day TAT			
<b>GROUNDWATER</b> - 8 quarterly groundwater monitoring events consisting of 8 groundwater samples per event				
PAHs (Full Scan)	\$150			
Metals	\$75			
NWTPH-Gx/Dx	\$60			
Data Validation				
<b>Total Cost:</b>			<b>\$42,340.00</b>	
<b>Drilling Services</b>	Cascade Drilling, L.P. Rates do not include Stantec Markup			
Utility Locate	\$500			
Decommission 12 wells	\$18,000			
Re-Install up to 6 wells	\$30,000			
<b>Total Cost:</b>			<b>\$48,500.00</b>	
<b>Additional Excavation / Waste Disposal</b>	Rates do not include Stantec Markup			
Mobilization & Fencing				
Erosion and Sediment Control				
Excavate, Load Haul, Dispose Asphalt per ton				
Excavate, Load, Haul, Transportation and disposal of impacted soil (Rabanco) and Place Grade and Compact Clean Fill (including delivery to site) per ton	Import,			
Contingency for De-watering				permitting and equipment & sampling
Concrete Restoration per sq. foot				
Asphalt Restoration per sq. foot				
Survey				
Storm Drain Installation				
Waste Profile				
<b>Total Cost:</b>			<b>\$1,922,020.00</b>	
<b>Subconsultant Taxes</b>				
Laboratory Analytical				
Drilling & Locate Services				
Additional Excavation and Waste Disposal				
<b>Total Tax:</b>			<b>\$191,221.70</b>	
<b>O&amp;M Costs</b>				
File Restrictive Covenant				
Annual Inspection/Repairs				
Ecology 5-year Review and Response				
Future soil Management				
<b>Total Cost</b>			<b>\$55,300.00</b>	
<b>TOTALS</b>				
<b>GRAND TOTAL BUDGETED</b>			<b>\$2,456,206.70</b>	

Notes:  
 =Rates per MSA

Table 52. Detailed Cost Estimate - Alternative 2

Unit Descriptions	Based on Excavation of 1200 cubic yards (1600 tons)			NOTES
	Cost Per Unit (2013 Rate Table 1)	Estimated Units	Total Cost	
<b>Stantec Labor - Remedial Excavation</b>				
Project Scientist	\$110.00	710.00	\$78,100.00	
Project Manager	\$160.00	300.00	\$48,000.00	
Technician CAD Support	\$81.00	135.00	\$10,935.00	
Technician Assistant / Clerical	\$81.00	88.00	\$7,128.00	
<b>Stantec Labor - Groundwater Sampling</b>				
Sampling Labor - Groundwater	\$110.00	69.00	\$7,590.00	
<b>Total Cost:</b>			<b>\$151,753.00</b>	
<b>Laboratory Analytical</b> Fremont Analytical Rates do not include Stantec Markup				
<b>SOIL</b> - up to 36 soil confirmation samples				
PAHs (Full Scan) \$150 for 5-day TAT	\$150.00	36	\$5,400.00	
Metals \$75 for 5-day TAT	\$75.00	36	\$2,700.00	
NWTPH-Dx \$60 for 5-day TAT	\$60.00	36	\$2,160.00	
<b>GROUNDWATER</b> - 8 quarterly groundwater monitoring events consisting of 8 groundwater samples per event				
PAHs (Full Scan) \$150	\$150.00	64	\$9,600.00	
Metals \$75	\$75.00	64	\$4,800.00	
NWTPH-Gx/Dx \$60	\$60.00	64	\$3,840.00	
Data Validation	\$3,500.00	2	\$7,000.00	
<b>Total Cost:</b>			<b>\$35,500.00</b>	
<b>Drilling Services</b> Cascade Drilling, L.P. Rates do not include Stantec Markup				
Utility Locate \$500	\$500	1	\$500.00	
Decommission 6 wells \$9,000	\$9,000.00	1	\$9,000.00	
Re-install up to 6 wells \$15,000	\$15,000.00	1	\$15,000.00	
<b>Total Cost:</b>			<b>\$24,500.00</b>	
<b>Additional Excavation / Waste Disposal</b> Rates do not include Stantec Markup				
Mobilization & Fencing	\$4,500.00	1	\$4,500.00	
Erosion and Sediment Control	\$5,000.00	1	\$5,000.00	
Excavate, Load Haul, Dispose Asphalt per ton	\$26.00	198	\$5,148.00	
Excavate, Load, Haul, Transportation and disposal of impacted soil (Rabanco) and Place Grade and Compact Clean Fill (including delivery to site) per ton Import,	\$88.95	1,561	\$138,850.95	
Contingency for De-watering	\$35,000.00	1	\$35,000.00	permitting and equipment & sampling
Concrete Restoration per sq. foot	\$10.00	0	\$0.00	
Asphalt Restoration per sq. foot	\$4.00	5,280	\$21,120.00	
Survey	\$8,000.00	1	\$8,000.00	
Storm Drain Installation	\$27,000.00	1	\$27,000.00	
Waste Profile	\$3,680.00	1	\$3,680.00	
<b>Total Cost:</b>			<b>\$248,298.95</b>	
<b>Subconsultant Taxes</b>				
Laboratory Analytical	\$35,500.00	9.50%	\$3,372.50	
Drilling & Locate Services	\$24,500.00	9.50%	\$2,327.50	
Additional Excavation and Waste Disposal	\$248,298.95	9.50%	\$23,588.40	
<b>Total Tax:</b>			<b>\$29,288.40</b>	
<b>O&amp;M Costs</b>				
File Restrictive Covenant	7,500	1	\$7,500.00	
Annual Inspection/Repairs	26,000	1	\$26,000.00	
Ecology 5-year Review and Response	19,000	1	\$19,000.00	
Future soil Management	2,800	1	\$2,800.00	
<b>Total Cost</b>			<b>\$55,300.00</b>	
<b>TOTALS</b>	<b>GRAND TOTAL BUDGETED</b>		<b>\$544,640.35</b>	

Notes:  
  =Rates per MSA

**Table 53. Detailed Cost Estimate - Alternative 3**

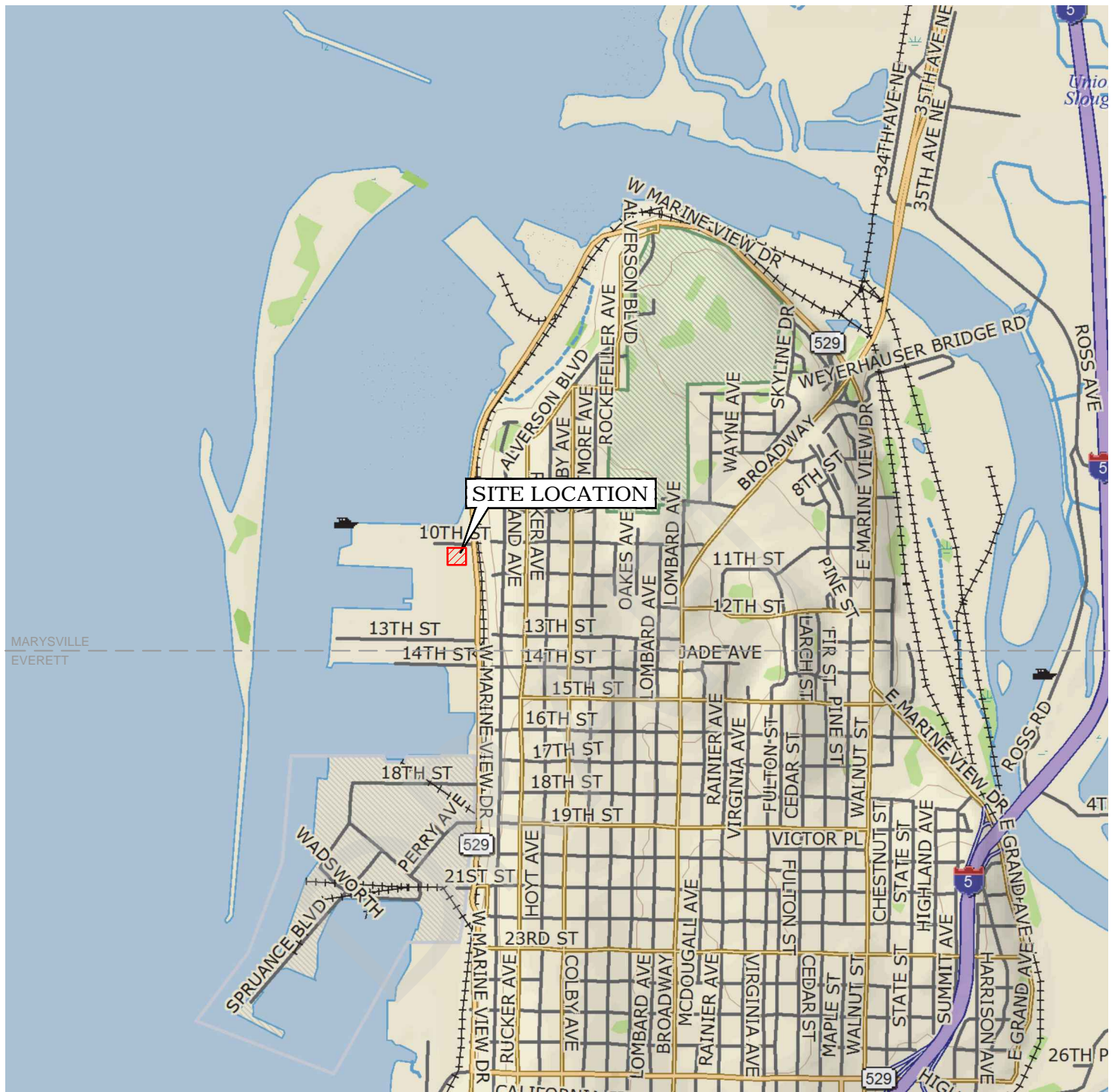
Unit Descriptions	Based on Excavation of 1200 cubic yards (1600 tons)			
	Cost Per Unit (2013 Rate Table 1)	Estimated Units	Total Cost	NOTES
<b>Stantec Labor - Groundwater Sampling</b>				
Sampling Labor - Groundwater	\$110.00	69.00	\$7,590.00	
		<b>Total Cost:</b>	<b>\$7,590.00</b>	
<b>Laboratory Analytical</b> Fremont Analytical Rates do not include Stantec Markup				
<b>GROUNDWATER</b> - 8 quarterly groundwater monitoring events consisting of 8 groundwater samples per event				
PAHs (Full Scan) \$150	\$150.00	64	\$9,600.00	
Metals \$75	\$75.00	64	\$4,800.00	
NWTPH-Gx/Dx \$60	\$60.00	64	\$3,840.00	
Data Validation	\$3,500.00	2	\$7,000.00	
		<b>Total Cost:</b>	<b>\$25,240.00</b>	
<b>Subconsultant Taxes</b>				
Laboratory Analytical	\$25,240.00	9.50%	\$2,397.80	
		<b>Total Tax:</b>	<b>\$2,397.80</b>	
<b>O&amp;M Costs</b>				
File Restrictive Covenant	7,500	1	\$7,500.00	
Annual Inspection/Repairs	26,000	1	\$26,000.00	
Ecology 5-year Review and Response	19,000	1	\$19,000.00	
Future soil Management	2,800	1	\$2,800.00	
		<b>Total Cost</b>	<b>\$55,300.00</b>	
<b>TOTALS</b>		<b>GRAND TOTAL BUDGETED</b>	<b>\$90,527.80</b>	

Notes:  
  =Rates per MSA

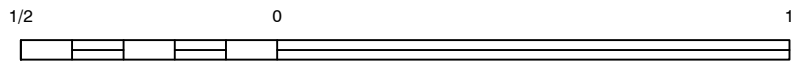
July 22, 2016

DRAFT

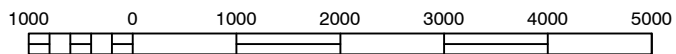
**FIGURES**



WASHINGTON



SCALE (MILES)



SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, MARYSVILLE/EVERETT, WASHINGTON



11130 NE 33RD PLACE, SUITE 200  
 BELLEVUE, WASHINGTON  
 PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:  
 REMEDIAL INVESTIGATION/  
 FEASIBILITY STUDY  
 1032 WEST MARINE VIEW DRIVE  
 EVERETT, WASHINGTON

JOB NUMBER:  
 18570302

DRAWN BY:  
 MDR

CHECKED BY:  
 PV

APPROVED BY:  
 PF

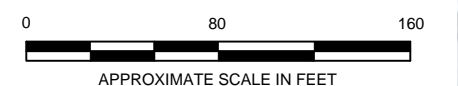
FIGURE:

1


DATE:  
 JAN 2014



**LEGEND**  
 - - - - - PROPERTY BOUNDARY  
 [Grid Symbol] STORM DRAIN CATCH BASIN  
 —SD— STOM DRAIN LINE



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 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR: <b>REMEDIAL INVESTIGATION /          FEASIBILITY STUDY</b> TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON	<b>PROPERTY PLAN</b>		FIGURE-SHEET: <b>2</b>
	JOB NUMBER: 185750302	DRAWN BY: JR	CHECKED BY: --	APPROVED BY: --





10th STREET

WEST MARINE VIEW DR

BUILDING D

BUILDING C

BUILDING B

BUILDING A

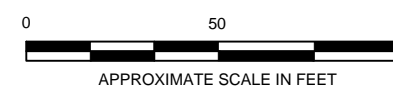
NORTH MARINA AMERON / HULBERT SITE



**LEGEND**

- PROPERTY BOUNDARY
- STORM DRAIN CATCH BASIN
- SD— STORM DRAIN LINE


SOURCE: PHASE 1 ESA E3RA 05/31/2009



- FACILITY FEATURE
- A PROCESS PLATING TANKLINE
- B SLUDGE PRESS FILTER CAKE STORAGE
- C CHEMICAL STORAGE
- D PENETRANT TEST AREA
- E BOILER SHED
- F PAINT BOOTH / PAINT AREAS
- G WASTE

- H COMPRESSOR SHED
- I WASTEWATER TREATMENT AREA
- J OVEN
- K OFFICE
- L MAINTENANCE AREA
- M SHOT PEEN
- N POWDER COATING

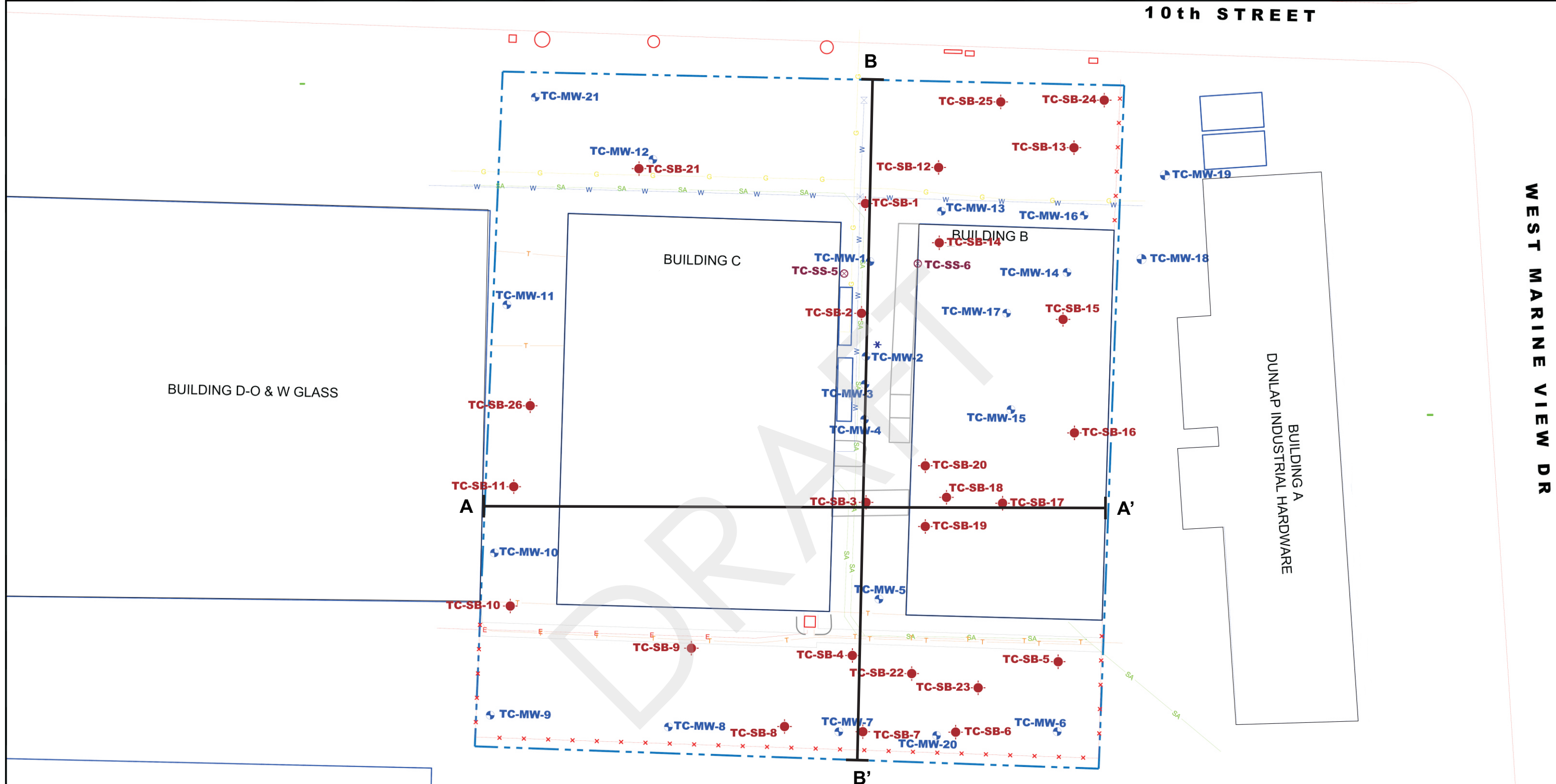
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 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR: <b>REMEDIAL INVESTIGATION /          FEASIBILITY STUDY</b> TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON		<b>HISTORICAL SITE          ACTIVITIES</b>		FIGURE-SHEET: <b>3</b>
	JOB NUMBER: 185750302	DRAWN BY: JR/MDR	CHECKED BY: PV	APPROVED BY: MS	DATE: APRIL 2015





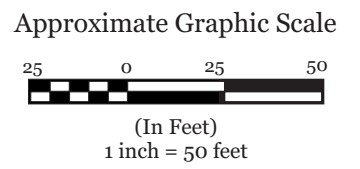
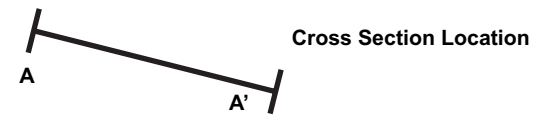
10th STREET


WEST MARINE VIEW DR

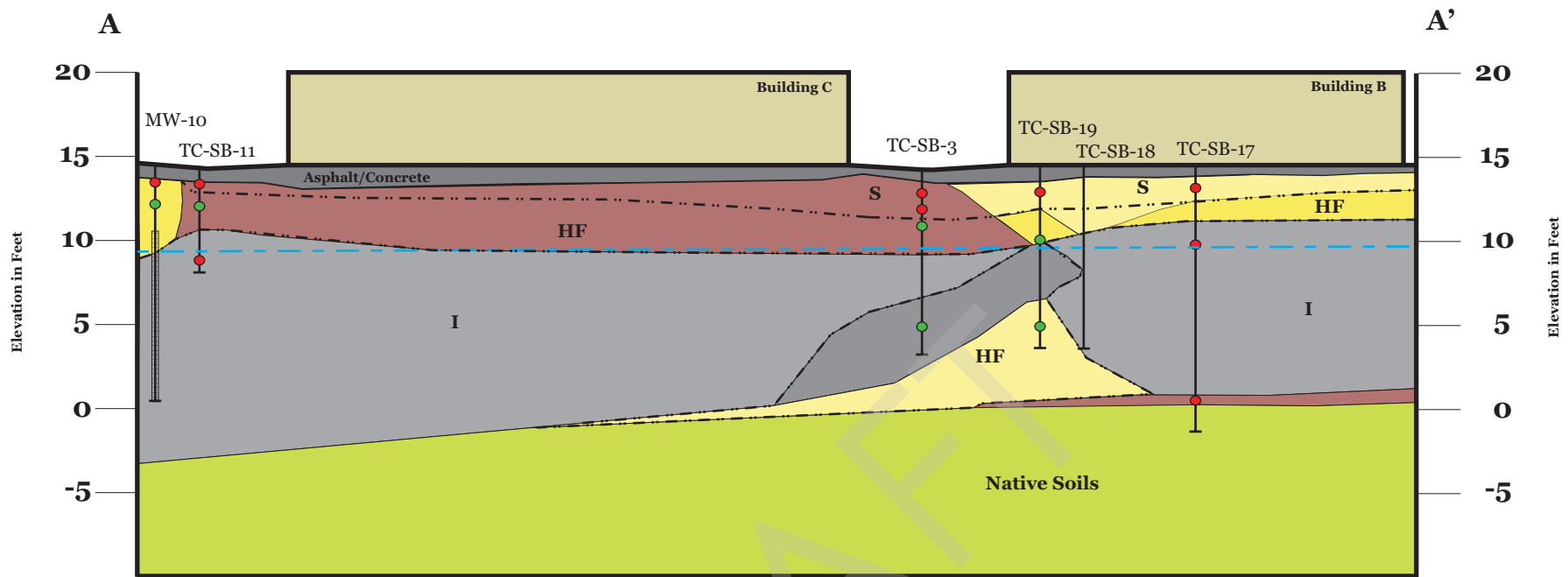









NORTH MARINA AMERON / HULBERT SITE


-  TC-MW-1 Monitoring Well Location
-  TC-SB-1 Soil Boring Location




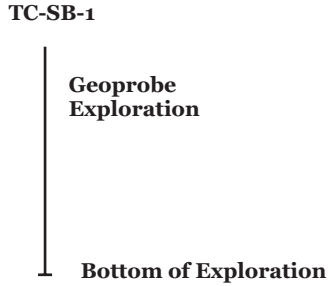
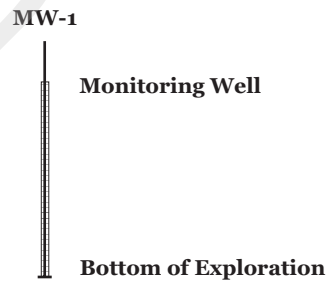
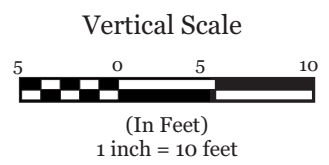
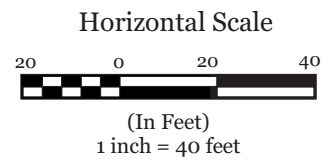
 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR:	RI/FS REPORT TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON		FIGURE:	<h1 style="font-size: 2em;">5</h1>
	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	
	185750230	BG/PH	PH	MS	3/31/15




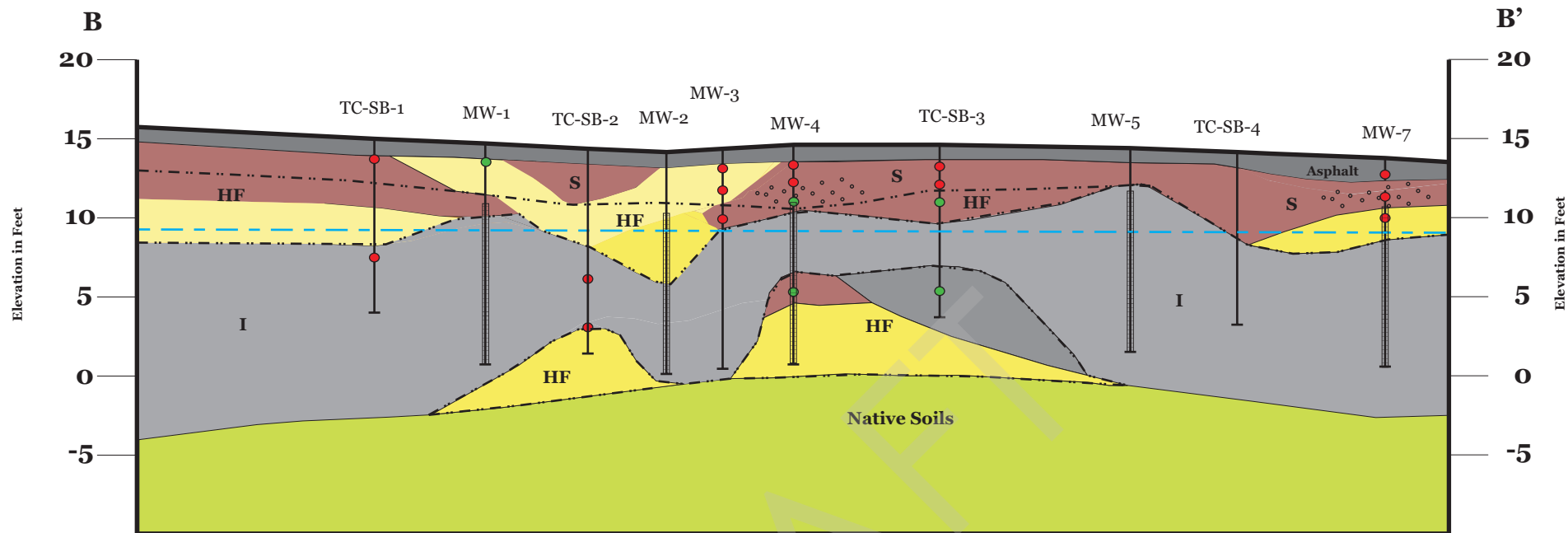
-  Asphalt/Crushed Rock or Concrete
- USCS SP**  Poorly Graded Sand
- USCS SM-SP**  Silty-Sand to Poorly Graded Sand
- USCS ML**  Silt to Sandy Silt
-  Organic Debris (Pulp, Sawdust, Lumber, other Wood)
-  Organic Debris with White Grit
-  Native Soils

-  Sample Below PSLs & CULs
-  Sample Above PSLs & CULs

-  Measured Groundwater Level
-  Approximate Fill Contact



	1130 NE 33rd Place, Suite 200 Bellevue, WA 98004 (425) 869-9448 (425) 869-1190 (Fax) <a href="http://www.stantec.com">www.stantec.com</a>	<b>TC Systems</b> 1032 W. Marine View Drive	<b>Cross Section</b> <b>Figure 6</b>
		March 20, 2015	



Concrete Debris



Asphalt/Crushed Rock or Concrete



Sample Below PSLs & CULs



Measured Groundwater Level



Sample Above PSLs & CULs



Approximate Fill Contact



Horizontal Scale

(In Feet)  
1 inch = 40 feet



Vertical Scale

(In Feet)  
1 inch = 10 feet

USCS  
SP



Poorly Graded Sand

USCS  
SM-SP



Silty-Sand to Poorly Graded Sand

USCS  
ML



Silt to Sandy Silt



Organic Debris (Pulp, Sawdust, Lumber, other Wood)



Organic Debris with White Grit



Native Soils

I

Fills of Indeterminate  
Origin; Likely Mixture of  
Site Use Fill and Dredged  
Fills

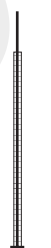
HF

Probable Hydraulic  
(Dredged) Fill

S

Fills Associated with  
Site Uses

MW-1



Monitoring Well

Bottom of Exploration

TC-SB-1



Geoprobe  
Exploration

Bottom of Exploration



Stantec

11130 NE 33rd Place, Suite 200  
Bellevue, WA 98004  
(425) 869-9448  
(425) 869-1190 (Fax)  
[www.stantec.com](http://www.stantec.com)

TC Systems  
1032 W. Marine View Drive

March 20, 2015

**Cross  
Section  
Figure 7**





**LEGEND**

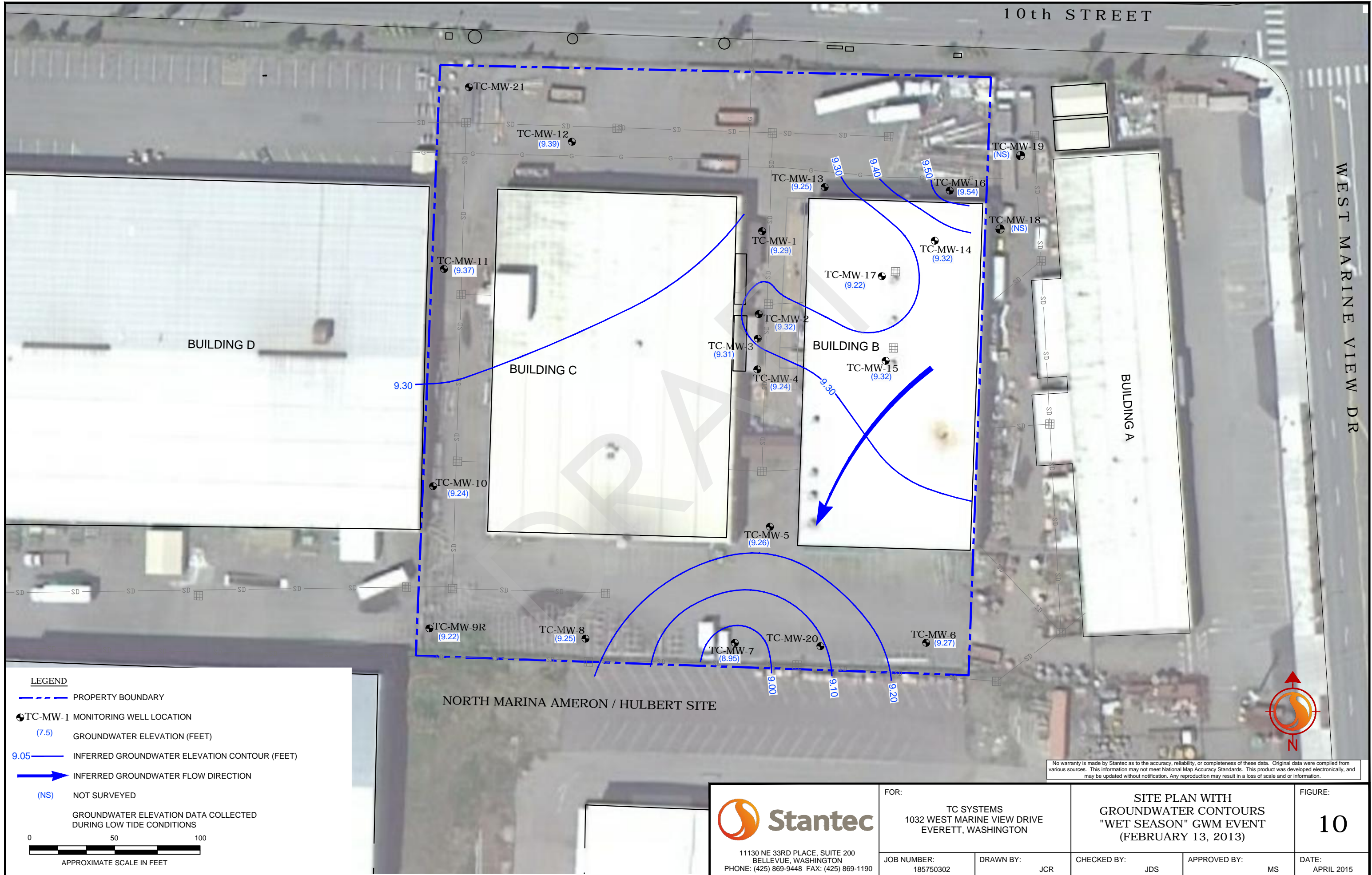
- PROPERTY BOUNDARY
- TC-MW-1 MONITORING WELL LOCATION
- (7.5) GROUNDWATER ELEVATION (FEET)
- 9.05 INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
- INFERRED GROUNDWATER FLOW DIRECTION
- (NS) NOT SURVEYED

GROUNDWATER ELEVATION DATA COLLECTED DURING LOW TIDE CONDITIONS

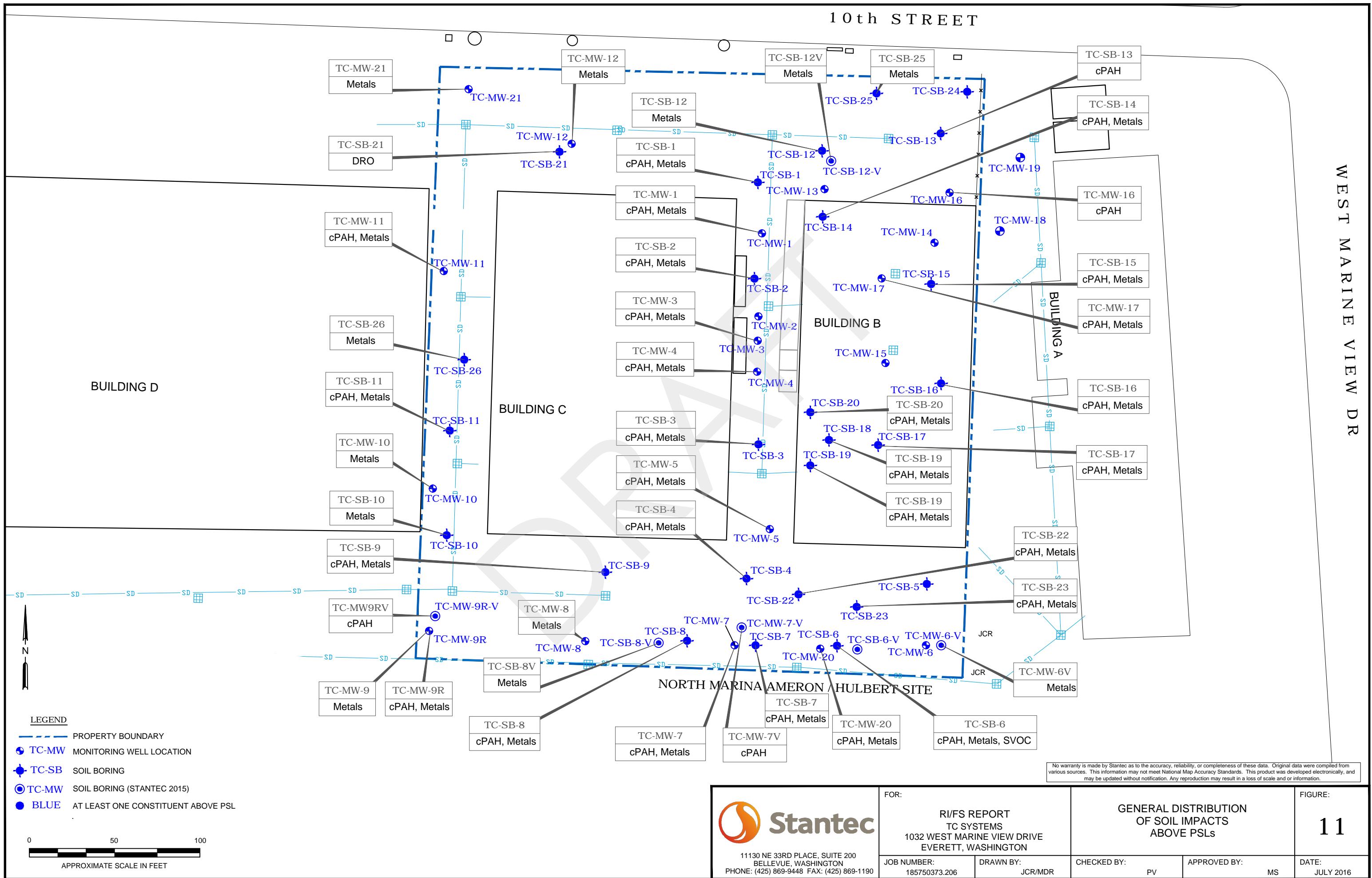
0 50 100  
  
 APPROXIMATE SCALE IN FEET

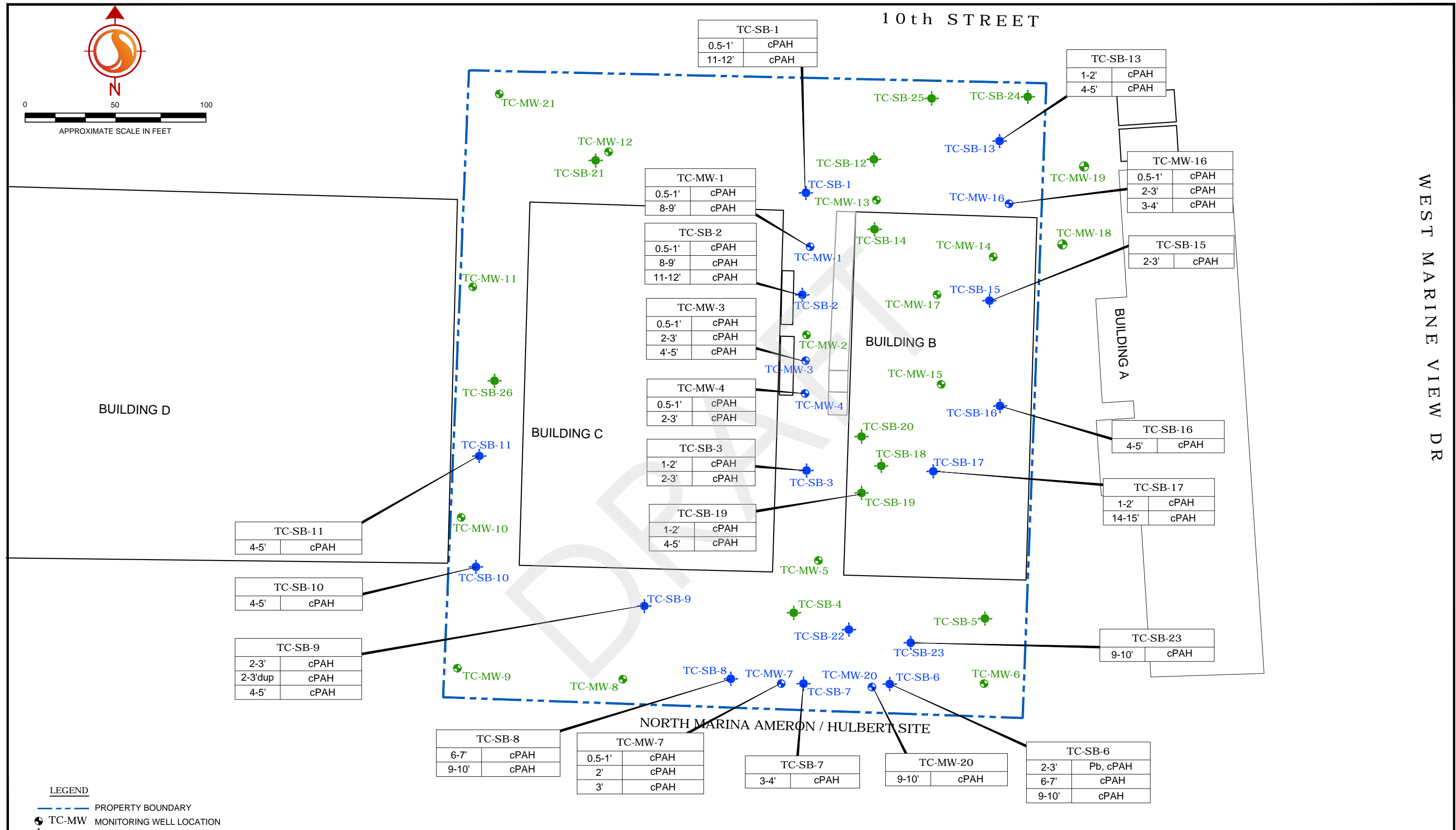
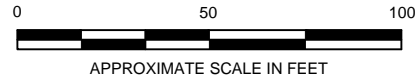
No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR:		TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON		SITE PLAN WITH GROUNDWATER CONTOURS "DRY SEASON" GWM EVENT (JULY 17, 2012)		FIGURE:  <b>9</b>	
	JOB NUMBER: 185750302	DRAWN BY: JCR	CHECKED BY: JDS	APPROVED BY: MS	DATE: APRIL 2015			









**LEGEND**

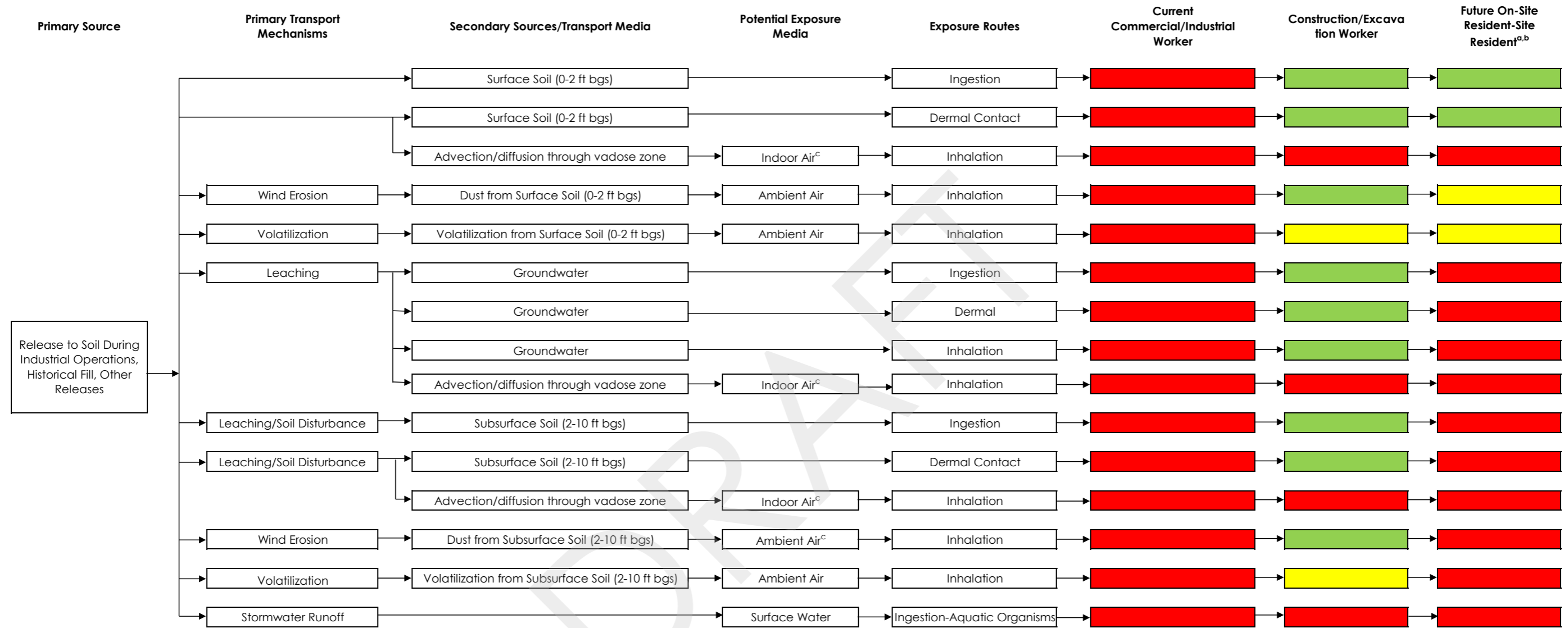
- PROPERTY BOUNDARY
- TC-MW MONITORING WELL LOCATION
- TC-SB SOIL BORING

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

 1130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR:		R/I/FS REPORT TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON		IHS SOIL SAMPLES		12	
	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:			
	212302839.200.0005	JCR	RM	MS				APRIL 2015



**Figure 14**  
**Current and Hypothetical Future Conditions Conceptual Site Model**  
**TC Systems**  
**1032 West Marine View Drive, Everett, Washington**



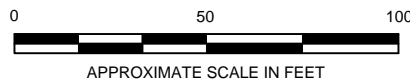
**LEGEND**



<sup>a</sup> Assumes future on-site residents will be exposed indoors and outdoors and impervious soil covering will be removed.

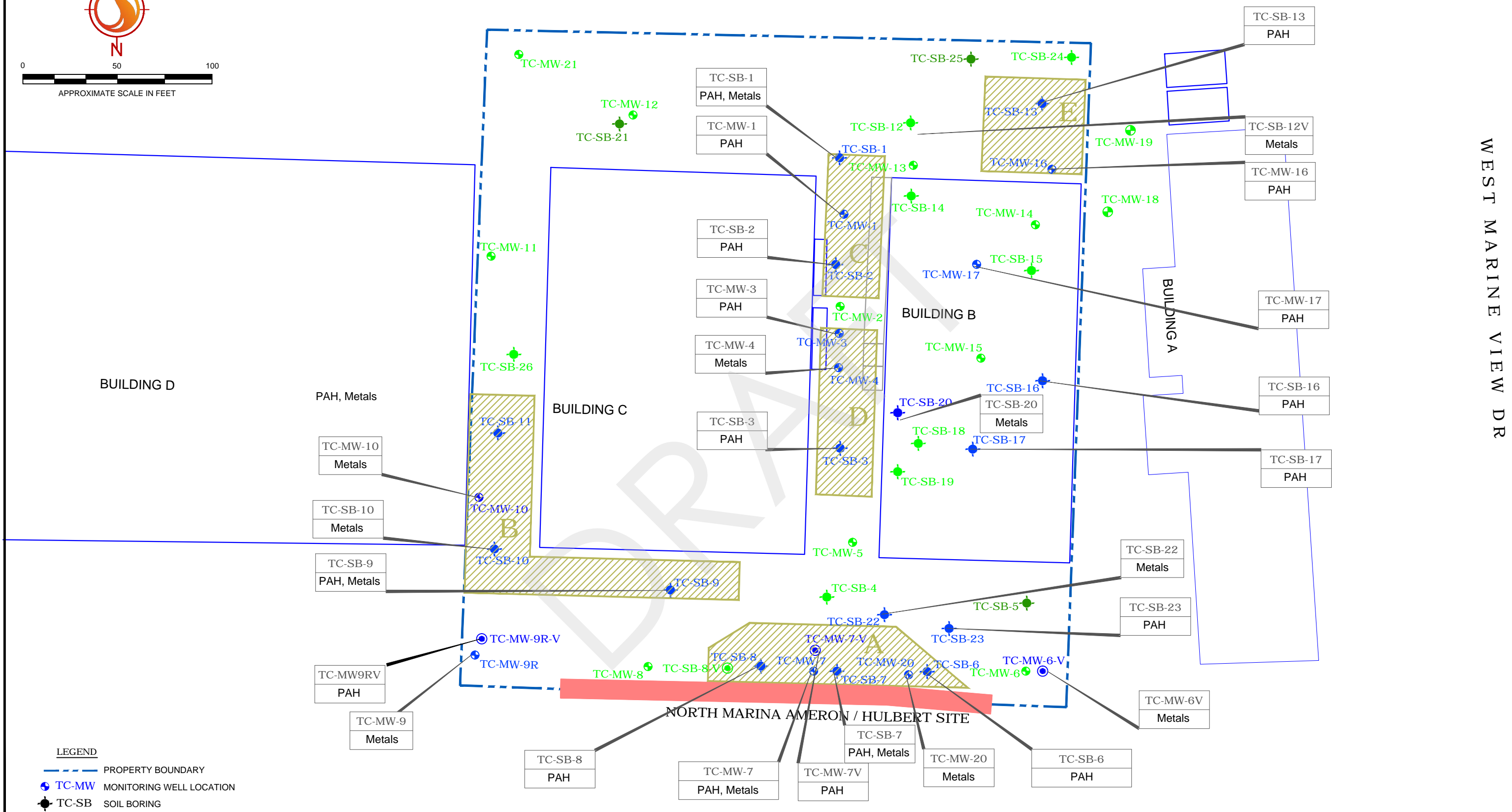
<sup>b</sup> Assumes no beneficial use of groundwater.

<sup>c</sup> VOCs have not been detected above PSLs in soil or groundwater.



10th STREET

WEST MARINE VIEW DR

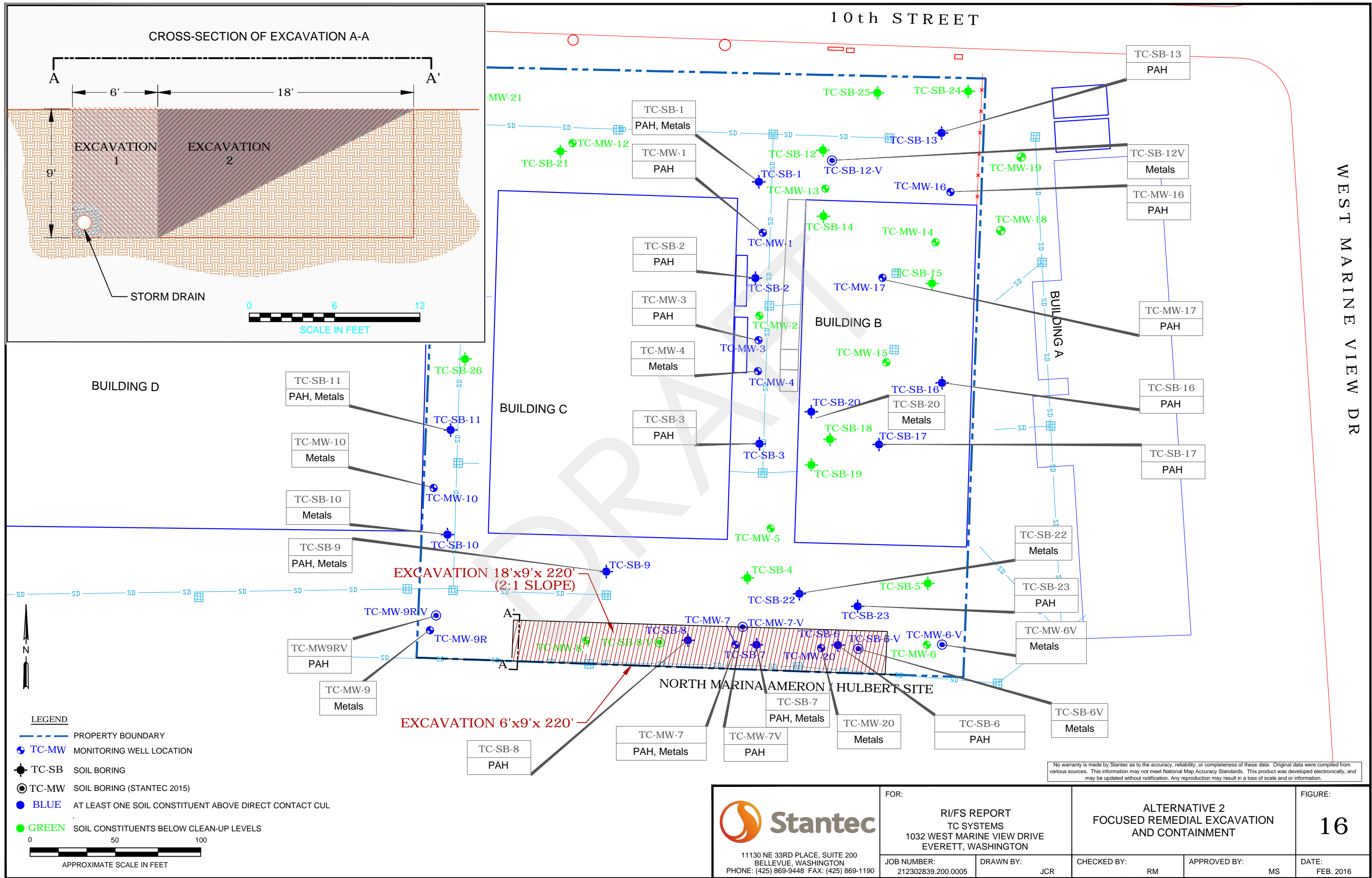


LEGEND

- PROPERTY BOUNDARY
- TC-MW MONITORING WELL LOCATION
- TC-SB SOIL BORING
- BLUE AT LEAST ONE SOIL CONSTITUENT ABOVE DIRECT CONTACT CUL
- GREEN SOIL CONSTITUENTS BELOW CLEAN-UP LEVELS
- AREA TO BE EXCAVATED
- PROPOSED STORM WATER LINE EXCAVATION

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<p>11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190</p>	FOR:	ALTERNATIVE 1 REMEDIAL EXCAVATION IN ACCESSIBLE AREAS AND CONTAINMENT		FIGURE: <b>15</b>
	RI/FS REPORT TC SYSTEMS 1032 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON	JOB NUMBER: 212302839.200.0005	DRAWN BY: JCR	CHECKED BY: RM
				DATE: APRIL 2015



**Figure 17**  
**Disproportionate Cost Analysis**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>																																																																																																																					
	<b>Remedial Excavation in Accessible Areas and Containment</b>	<b>Remedial Excavation Associated with Stormline Replacement and Containment</b>	<b>Site Wide Capping and Containment</b>																																																																																																																					
<b>Relative Benefits Ranking for DCA</b>	<table border="1"> <thead> <tr> <th>Comparative Benefit Rating</th> <th>Score</th> <th>Weighting Factor</th> <th>Weighted Score</th> </tr> </thead> <tbody> <tr> <td>Overall Protectiveness</td> <td>Medium High</td> <td>7</td> <td>0.3</td> <td>2.1</td> </tr> <tr> <td>Permanence</td> <td>Medium</td> <td>7</td> <td>0.2</td> <td>1.4</td> </tr> <tr> <td>Long Term Effectiveness</td> <td>Medium High</td> <td>7</td> <td>0.2</td> <td>1.4</td> </tr> <tr> <td>Manageability of Short Term Risk</td> <td>Medium</td> <td>7</td> <td>0.1</td> <td>0.7</td> </tr> <tr> <td>Implementability</td> <td>Medium</td> <td>5</td> <td>0.1</td> <td>0.5</td> </tr> <tr> <td>Consideration of Public Concerns</td> <td>High</td> <td>10</td> <td>0.1</td> <td>1.0</td> </tr> <tr> <td><b>Comparative Overall Benefit</b></td> <td></td> <td></td> <td></td> <td><b>7.1</b></td> </tr> </tbody> </table>	Comparative Benefit Rating	Score	Weighting Factor	Weighted Score	Overall Protectiveness	Medium High	7	0.3	2.1	Permanence	Medium	7	0.2	1.4	Long Term Effectiveness	Medium High	7	0.2	1.4	Manageability of Short Term Risk	Medium	7	0.1	0.7	Implementability	Medium	5	0.1	0.5	Consideration of Public Concerns	High	10	0.1	1.0	<b>Comparative Overall Benefit</b>				<b>7.1</b>	<table border="1"> <thead> <tr> <th>Comparative Benefit Rating</th> <th>Score</th> <th>Weighting Factor</th> <th>Weighted Score</th> </tr> </thead> <tbody> <tr> <td>Overall Protectiveness</td> <td>Medium High</td> <td>6</td> <td>0.3</td> <td>1.8</td> </tr> <tr> <td>Permanence</td> <td>Medium</td> <td>6</td> <td>0.2</td> <td>1.2</td> </tr> <tr> <td>Long Term Effectiveness</td> <td>Medium</td> <td>6</td> <td>0.2</td> <td>1.2</td> </tr> <tr> <td>Manageability of Short Term Risk</td> <td>Medium High</td> <td>8</td> <td>0.1</td> <td>0.8</td> </tr> <tr> <td>Implementability</td> <td>High</td> <td>9</td> <td>0.1</td> <td>0.9</td> </tr> <tr> <td>Consideration of Public Concerns</td> <td>High</td> <td>10</td> <td>0.1</td> <td>1.0</td> </tr> <tr> <td><b>Comparative Overall Benefit</b></td> <td></td> <td></td> <td></td> <td><b>6.9</b></td> </tr> </tbody> </table>	Comparative Benefit Rating	Score	Weighting Factor	Weighted Score	Overall Protectiveness	Medium High	6	0.3	1.8	Permanence	Medium	6	0.2	1.2	Long Term Effectiveness	Medium	6	0.2	1.2	Manageability of Short Term Risk	Medium High	8	0.1	0.8	Implementability	High	9	0.1	0.9	Consideration of Public Concerns	High	10	0.1	1.0	<b>Comparative Overall Benefit</b>				<b>6.9</b>	<table border="1"> <thead> <tr> <th>Comparative Benefit Rating</th> <th>Score</th> <th>Weighting Factor</th> <th>Weighted Score</th> </tr> </thead> <tbody> <tr> <td>Overall Protectiveness</td> <td>Medium High</td> <td>4</td> <td>0.3</td> <td>1.2</td> </tr> <tr> <td>Permanence</td> <td>Medium Low</td> <td>5</td> <td>0.2</td> <td>1.0</td> </tr> <tr> <td>Long Term Effectiveness</td> <td>Medium</td> <td>5</td> <td>0.2</td> <td>1.0</td> </tr> <tr> <td>Manageability of Short Term Risk</td> <td>High</td> <td>10</td> <td>0.1</td> <td>1.0</td> </tr> <tr> <td>Implementability</td> <td>High</td> <td>9</td> <td>0.1</td> <td>0.9</td> </tr> <tr> <td>Consideration of Public Concerns</td> <td>High</td> <td>10</td> <td>0.1</td> <td>1.0</td> </tr> <tr> <td><b>Comparative Overall Benefit</b></td> <td></td> <td></td> <td></td> <td><b>6.1</b></td> </tr> </tbody> </table>	Comparative Benefit Rating	Score	Weighting Factor	Weighted Score	Overall Protectiveness	Medium High	4	0.3	1.2	Permanence	Medium Low	5	0.2	1.0	Long Term Effectiveness	Medium	5	0.2	1.0	Manageability of Short Term Risk	High	10	0.1	1.0	Implementability	High	9	0.1	0.9	Consideration of Public Concerns	High	10	0.1	1.0	<b>Comparative Overall Benefit</b>				<b>6.1</b>
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**REMEDIAL INVESTIGATION/FEASIBILITY STUDY**

Appendix A Ecology's Terrestrial Ecological Exclusion Form  
July 22, 2016

**Appendix A ECOLOGY'S TERRESTRIAL ECOLOGICAL  
EXCLUSION FORM**





# Voluntary Cleanup Program

Washington State Department of Ecology  
Toxics Cleanup Program

## TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

**Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.**

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to [www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm](http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm).

### Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are documenting an evaluation.

Facility/Site Name: TC Systems

Facility/Site Address: 1032 West Marine View Drive, Everett, WA

Facility/Site No: 10587741

VCP Project No.:

### Step 2: IDENTIFY EVALUATOR

Please identify below the person who conducted the evaluation and their contact information.

Name: Patrick H. Vaughan

Title: Principal

Organization: Stantec Consulting Services, Inc.

Mailing address: 9400 SW Barnes Road, Suite 200

City: Portland

State: OR

Zip code: 97225

Phone: 971-230-5206

Fax:

E-mail: [Patrick.vaughan@stantec.com](mailto:Patrick.vaughan@stantec.com)

### Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

#### A. Exclusion from further evaluation.

##### 1. Does the Site qualify for an exclusion from further evaluation?

- Yes *If you answered "YES," then answer Question 2.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to Step 3B of this form.*

##### 2. What is the basis for the exclusion? Check all that apply. Then skip to Step 4 of this form.

Point of Compliance: WAC 173-340-7491(1)(a)

- All soil contamination is, or will be,\* at least 15 feet below the surface.
- All soil contamination is, or will be,\* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

- All contaminated soil, is or will be,\* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

- There is less than 0.25 acres of contiguous<sup>#</sup> undeveloped<sup>±</sup> land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.
- For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous<sup>#</sup> undeveloped<sup>±</sup> land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

- Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

\* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

<sup>±</sup> "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

<sup>#</sup> "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

## B. Simplified evaluation.

### 1. Does the Site qualify for a simplified evaluation?

- Yes *If you answered "YES," then answer Question 2 below.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to Step 3C of this form.*

### 2. Did you conduct a simplified evaluation?

- Yes *If you answered "YES," then answer Question 3 below.*
- No *If you answered "NO," then skip to Step 3C of this form.*

### 3. Was further evaluation necessary?

- Yes *If you answered "YES," then answer Question 4 below.*
- No *If you answered "NO," then answer Question 5 below.*

### 4. If further evaluation was necessary, what did you do?

- Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to Step 4 of this form.*
- Conducted a site-specific evaluation. *If so, then skip to Step 3C of this form.*

### 5. If no further evaluation was necessary, what was the reason? Check all that apply. Then skip to Step 4 of this form.

#### Exposure Analysis: WAC 173-340-7492(2)(a)

- Area of soil contamination at the Site is not more than 350 square feet.
- Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

#### Pathway Analysis: WAC 173-340-7492(2)(b)

- No potential exposure pathways from soil contamination to ecological receptors.

#### Contaminant Analysis: WAC 173-340-7492(2)(c)

- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

**C. Site-specific evaluation.** A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).

**1. Was there a problem?** See WAC 173-340-7493(2).

- Yes *If you answered "YES," then answer **Question 2** below.*
- No *If you answered "NO," then identify the reason here and then skip to **Question 5** below:*
- No issues were identified during the problem formulation step.
  - While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

**2. What did you do to resolve the problem?** See WAC 173-340-7493(3).

- Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

**3. If you conducted further site-specific evaluations, what methods did you use?**

*Check all that apply. See WAC 173-340-7493(3).*

- Literature surveys.
- Soil bioassays.
- Wildlife exposure model.
- Biomarkers.
- Site-specific field studies.
- Weight of evidence.
- Other methods approved by Ecology. If so, please specify:

**4. What was the result of those evaluations?**

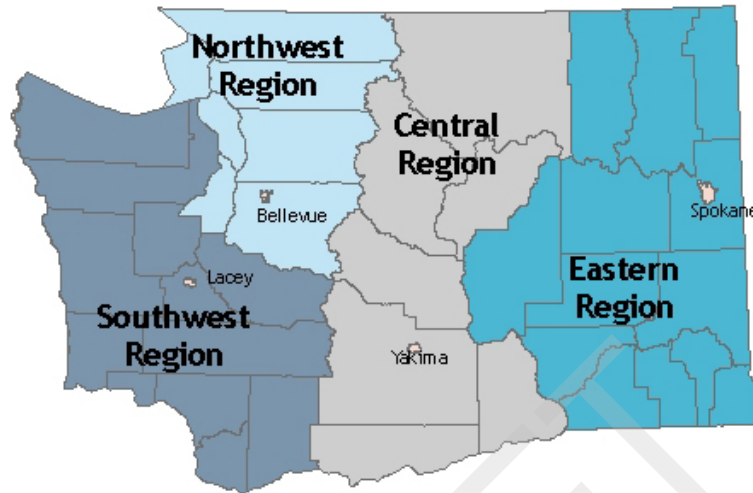
- Confirmed there was no problem.
- Confirmed there was a problem and established site-specific cleanup levels.

**5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?**

- Yes *If so, please identify the Ecology staff who approved those steps:*
- No

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



<b>Northwest Region:</b> Attn: VCP Coordinator 3190 160 <sup>th</sup> Ave. SE Bellevue, WA 98008-5452	<b>Central Region:</b> Attn: VCP Coordinator 15 W. Yakima Ave., Suite 200 Yakima, WA 98902
<b>Southwest Region:</b> Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	<b>Eastern Region:</b> Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

**REMEDIAL INVESTIGATION/FEASIBILITY STUDY**

Appendix B Boring Logs  
July 22, 2016

DRAFT

**Appendix B BORING LOGS**

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-1** PAGE 1 OF 1



DATE: STARTED: **4/26/2011** COMPLETED: **4/26/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7.5**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP	SP; no odor; Loose, fine to medium grained sand (trace gravel and silt), olive gray, moist. (Fill) -Trace wood debris		1140 TC-MW-1@ 1-1.5'			2.3		Flush mount well box with concrete Bentonite seal
		ML	ML; slight organic odor; Soft to medium stiff, fine grained sand, dark brown, moist. (Fill) -Moderate plasticity, areas of gravel locally		1145 TC-MW-1@ 2-3'			.2		
5			Loose wood debris and sawdust, moist to wet. (Fill) -Large wood debris (>4") below 5.5 feet -No recovery below 5 feet		1150 TC-MW-1@ 3-4'			0		
					1225 TC-MW-1@ 7-8'			1.8		2" well with sand pack
15			Borehole terminated at 14 feet bgs.							

GEO FORM 304\_SECOR037\_TC SYSTEM BORING LOGS.GPJ\_SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-2** PAGE 1 OF 1



DATE: STARTED: **4/26/2011** COMPLETED: **4/26/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **8**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP	SP; no odor; Loose, fine to medium grained sand (trace gravel and silt), olive gray, moist. (Fill) -Trace asphalt pieces		1320 TC-MW-2@ 1-1.5'			0		Flush mount well box with concrete
		SP	SP; Loose, fine to medium grained sand, olive gray to dark yellowish brown, moist. (Fill)		1325 TC-MW-2@ 2-3'			0		Bentonite seal
		SP-SM	-Brick and wood debris SP-SM; Loose, fine to medium grained sand, dark yellowish brown to brown, moist to wet. (Fill) -Decrease in gravels and debris		1330 TC-MW-2@ 3-4'			0		
5										
		OL	OL; Loose sawdust and wood debris, moist to wet. (Fill)		1340 TC-MW-2@ 7-8'			0		
10										2" well with sand pack
					1349 TC-MW-2@ 9-10'			0		
15			Borehole terminated at 14 feet bgs.							

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11



PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-3** PAGE 1 OF 1



DATE: STARTED: **4/26/2011** COMPLETED: **4/26/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7.5**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP	SP; no odor; Loose, fine to medium grained sand, grayish brown, moist. (Fill) -Trace wood debris below 1.5 feet		1445 TC-MW-3@ 1-1.5'			2.3		Flush mount well box with concrete
		ML	ML; slight organic odor; Medium stiff, fine grained sand, moderate plasticity, dark brown, moist. (Fill)		1450 TC-MW-3@ 2-3'			.2		Bentonite seal
		OL	OL; Loose wood debris and sawdust, wet. (Fill)		1510 TC-MW-3@ 3-4'			0		
5			-Trace gravels							
10										2" well with sand pack
15			Borehole terminated at 14 feet bgs.							

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

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PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-4** PAGE 1 OF 1



DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **8**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML; no odor; Medium stiff, fine grained sand, dark brown, moist. (Fill) -Minor gravels, low plasticity, trace wood and concrete debris		750 TC-MW-4@ 1-1.5'			.2		Flush mount well box with concrete
					755 TC-MW-4@ 2-3'			1.8		Bentonite seal
		OL	OL; Loose wood debris and sawdust, moist to wet. (Fill)		800 TC-MW-4@ 3-4'			.4		
5									5	
		ML	ML; no odor; Medium stiff, fine grained sand, dark brown, moist to wet. (Fill) -Areas of gravel, low plasticity, wood debris							
		SP-SM	SP-SM; no odor; Loose to medium dense, fine to medium grained sand (trace gravel), grayish brown, wet. (Fill) -Trace wood debris, no recovery from 10 to 13 feet		825 TC-MW-4@ 9-10'			0		2" well with sand pack
10									10	
			Borehole terminated at 14 feet bgs.						15	
15									15	

GEO FORM 304\_SECOR037 TC SYSTEM BORING LOGS.GPJ\_SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-5** PAGE 1 OF 1

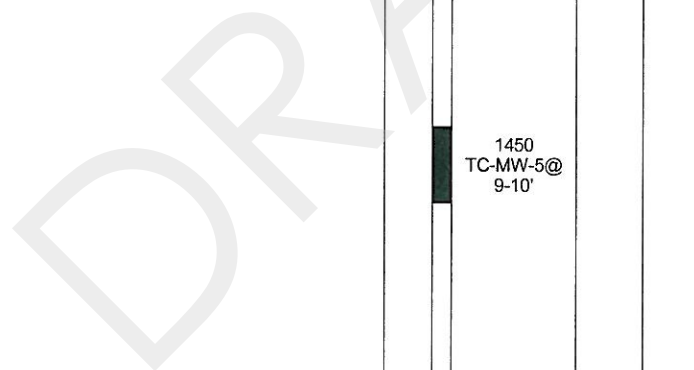


DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML: no odor; Soft to medium stiff, fine grained sand, low plasticity, grayish brown, moist. (Fill)		1435 TC-MW-5@ 1-1.5'			0		Flush mount well box with concrete Bentonite seal
		OL	OL: Loose wood debris and sawdust, moist to wet. (Fill)		1440 TC-MW-5@ 2-3'			.5		
			-Some small gravel and roots		1445 TC-MW-5@ 3-4'			1.8		
5								5		
					1448 TC-MW-5@ 6-7'			0		
										2" well with sand pack
10					1450 TC-MW-5@ 9-10'			0		
15			Borehole terminated at 13 feet bgs.							

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11



PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-6** PAGE 1 OF 1



DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): 7 TEST PIT DEPTH (ft): **13.00**  
 STATIC DTW (ft): **NA** WELL DEPTH (ft): **13**  
 WELL CASING DIAMETER (in): 2 BOREHOLE DIAMETER (in): **8.25**  
 LOGGED BY: **RM** CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML; slight organic odor; Soft to medium stiff, fine grained sand, low plasticity, brown, moist. (Fill) -Local gravels, trace wood debris below 2'		1455 TC-MW-6@ 1-1.5'			7		Flush mount well box with concrete Bentonite seal
					1500 TC-MW-6@ 2-3'			1		
					1505 TC-MW-6@ 3-4'			3		
					1512 TC-MW-6@ 4-5'			0		
5		OL	OL; Loose wood debris, moist to wet. (Fill) -No recovery below 5 feet						5	
10										2" well with sand pack
15			Borehole terminated at 13 feet bgs.							

GEO FORM 304\_SECOR037\_TC SYSTEM BORING LOGS.GPJ\_SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-7** PAGE 1 OF 1



DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6** TEST PIT DEPTH (ft): **13.00**  
 STATIC DTW (ft): **NA** WELL DEPTH (ft): **13**  
 WELL CASING DIAMETER (in): **2** BOREHOLE DIAMETER (in): **8.25**  
 LOGGED BY: **RM** CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Concrete							
		ML	ML; slight HC odor; Soft, fine grained sand, low plasticity, brown, moist. (Fill) -Areas of gravel, wood and concrete debris		1000 TC-MW-7@ 2-2.5'			1		Flush mount well box with concrete Bentonite seal
		SP-SM	SP-SM; moderate petroleum odor; Loose, fine to medium grained sand, yellowish brown, moist. (Fill) -Areas of wood debris		1005 TC-MW-7@ 3-4'			4.4		
5		OL	OL; moderate petroleum odor; Loose wood debris with areas of gravel, moist to wet. (Fill) -Sheen on drill rod, no recovery below 10 feet		1010 TC-MW-7@ 4-5'			8.8	5	
										2" well with sand pack
			Borehole terminated at 13 feet bgs.						15	

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-8** PAGE 1 OF 1



DATE: STARTED: **4/28/2011** COMPLETED: **4/28/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): 7  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): 2  
 LOGGED BY: **RM**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Concrete							
		SP-SM	SP-SM; no odor; Loose, fine to medium grained sand, grayish brown, moist. (Fill) -Mottled from 0 to 1 feet, gravel below 1 feet		1200 TC-MW-8@ 1-1.5'			0		Flush mount well box with concrete Bentonite seal
					1205 TC-MW-8@ 2-3'			0		
					1210 TC-MW-8@ 3-4'			0		
5		OL	OL; Loose wood debris, moist to wet. (Fill)						5	
10									10	2" well with sand pack
15			Borehole terminated at 13 feet bgs.						15	

GEO FORM 304 SECOR037 TC-SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

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PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit

**TC-MW-9** PAGE 1 OF 1



DATE: STARTED: **4/28/2011** COMPLETED: **4/28/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML; no odor; Soft, fine to medium grained sand, moderate plasticity, grayish brown, moist. (Fill)		1025 TC-MW-9@ 1-1.5'			1		Flush mount well box with concrete Bentonite seal
		SP	SP; no odor; Loose, fine to medium grained sand, olive gray, moist to wet. (Fill)		1030 TC-MW-9@ 2-3'			1.6		
					1034 TC-MW-9@ 3-4'			9		
5									5	
					1038 TC-MW-9@ 7-8'			0		2" well with sand pack
					1042 TC-MW-9@ 8.5-9.5'			0		
10		OL	OL; Loose wood debris, wet. (Fill)						10	
			Borehole terminated at 13 feet bgs.						15	

GEO FORM 304\_SECOR037\_TC SYSTEM BORING LOGS.GPJ\_SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-10** PAGE 1 OF 1



DATE: STARTED: **4/25/2011** COMPLETED: **4/25/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): 7  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): 2  
 LOGGED BY: **RM**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP-SM	SP-SM; no odor; Medium dense, fine to medium grained sand, grayish brown, moist. (Fill) -Becomes more silty with depth, increase in gravel and wood debris with depth		1430 TC-MW-10@ 1-1.5'			0		Flush mount well box with concrete
					1450 TC-MW-10@ 2-3'			0		Bentonite seal
					1510 TC-MW-10@ 3-4'			0		
5		OL	OL; Loose wood debris, moist to wet. (Fill)							
10										2" well with sand pack
15			Borehole terminated at 14 feet bgs.							

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

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PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-11** PAGE 1 OF 1



DATE: STARTED: **4/28/2011** COMPLETED: **4/28/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP	SP; no odor; Loose, fine to medium grained sand, grayish brown, moist. (Fill)		910 TC-MW-11@ 1-1.5'			10		Flush mount well box with concrete Bentonite seal
		SM	SM; Loose, fine to medium grained sand, olive gray, moist to wet. (Fill) -Trace wood debris		915 TC-MW-11@ 2-3'			16		
					920 TC-MW-11@ 3-4'			9		
5					925 TC-MW-11@ 5.5-6.5'			0		2" well with sand pack
		OL	OL; slight organic odor; Loose wood debris and sawdust, wet. (Fill)		930 TC-MW-11@ 9-10'			0		
10										
			Borehole terminated at 13 feet bgs.							
15										

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-12** PAGE 1 OF 1



DATE: STARTED: **4/28/2011** COMPLETED: **4/28/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML; no odor; Stiff, fine to medium grained sand, olive gray, moist. (Fill) -Trace gravel and wood debris -Increase in sand content with depth		745 TC-MW-12@ 1.5-2'			.9		Flush mount well box with concrete Bentonite seal
		SP	SP; no odor; Loose, fine to medium grained sand, grayish brown, moist. (Fill)		750 TC-MW-12@ 2.5-3.5'			2.2		
		ML	ML; no odor; Medium stiff, fine grained sand, olive brown, moist to wet. (Fill) -Areas of mottling and gravels		755 TC-MW-12@ 3.5-4.5'			.5		
5									5	
		OL	OL; slight organic odor; Loose wood debris and sawdust, wet. (Fill)		800 TC-MW-12@ 5.5-6.5'			0		
					805 TC-MW-12@ 6.5-7.5'			0		2" well with sand pack
10									10	
			Borehole terminated at 13 feet bgs.		810 TC-MW-12@ 10-11'			0		
15									15	

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-13** PAGE 1 OF 1



DATE: STARTED: **4/26/2011** COMPLETED: **4/26/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **9.5**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **14.00**  
 WELL DEPTH (ft): **14**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		SP	SP; no odor; Loose, fine to medium grained sand, grayish brown, moist. (Fill)		950 TC-MW-13@ 1-1.5'			1.7		Flush mount well box with concrete
		SM	SM; no odor; Medium dense, fine to medium grained sand, dark brown, moist. (Fill) -Trace wood debris and gravel		1000 TC-MW-13@ 2-3'			4.2		Bentonite seal
			Metallic slag debris, 1 to 3" sized pieces. (Fill)		1015 TC-MW-13@ 3-4'			5.4		
5					1020 TC-MW-13@ 4-5'			0		
					1025 TC-MW-13@ 8-9'			0		2" well with sand pack
10		OL	OL; Loose wood debris, sawdust, and slag, very moist to wet. (Fill) -No recovery below 10', seen on drill rod							
			Borehole terminated at 14 feet bgs.							
15										

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-14** PAGE 1 OF 1



DATE: STARTED: **4/29/2011** COMPLETED: **4/29/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **5**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **AD**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **15.00**  
 WELL DEPTH (ft): **15**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Concrete/Void							
		SP	SP; Loose, fine to medium grained sand, olive gray, moist. (Fill)		805 TC-MW-14@ 2-2.5'			1.2		
		ML	ML; slight petroleum odor; Medium stiff, fine grained sand, olive gray, moist. (Fill) -Pieces of brick, minor gravel, wood debris, slightly mottled		810 TC-MW-14@ 3-4'			2.6		
5			Obstruction at 5 feet.		815 TC-MW-14@ 4-5'			.9	5	
15			Borehole terminated at 15 feet bgs.						15	

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-15** PAGE 1 OF 1



DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): 7  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): 2  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): 13  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Concrete/Void							
		SP	SP; no odor; Loose, fine to medium grained sand, yellowish brown, moist. (Fill)		1135 TC-MW-15@ 2-2.5'			0		
		SM	SM; strong organic odor; Loose, fine to medium grained sand, olive brown to olive gray, moist. (Fill) -Areas of gravel and debris		1140 TC-MW-15@ 3-4'			.4		
5					1145 TC-MW-15@ 4-5'			1	5	
					1150 TC-MW-15@ 6-7'			0		
		OL	OL; strong organic odor; Loose wood debris and sawdust, moist to wet. (Fill) -No recovery below 10'		1155 TC-MW-15@ 9-10'			0	10	
			Borehole terminated at 13 feet bgs.						15	

GEO FORM 304\_SECOR037\_TC SYSTEM BORING LOGS.GPJ\_SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-16** PAGE 1 OF 1



DATE: STARTED: **4/26/2011** COMPLETED: **4/26/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **12**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **15.00**  
 WELL DEPTH (ft): **15**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Asphalt/Crushed Rock							
		ML	ML; no odor; Stiff, fine grained sand, olive brown, moist. (Fill) -Areas of gravel, brick, and fiberglass debris		810 TC-MW-16@ 1-1.5'			5.9		Flush mount well box with concrete
		SM	SM; slight organic odor; Medium dense, fine to medium grained sand, gray with black mottling, moist. (Fill) -Areas of gravel, roots, and wood debris		820 TC-MW-16@ 2-3'			2		Bentonite seal
		SM	SM; slight organic odor; Medium dense, fine to medium grained sand, gray with black mottling, moist. (Fill) -Areas of gravel, roots, and wood debris		830 TC-MW-16@ 3-4'			1.5		
5		ML	ML; moderate organic odor; Stiff, fine grained sand, olive brown, moist. (Fill) -Trace gravel, wood debris						5	
		OL	OL; strong organic odor; Loose to medium dense sawdust and wood debris, moist to wet. (Fill)		840 TC-MW-16@ 8-9'			0		
		OL	OL; strong organic odor; Loose to medium dense sawdust and wood debris, moist to wet. (Fill)		845 TC-MW-16@ 9-10'			0		2" well with sand pack
10										
		SP	SP; slight organic odor; Medium dense, fine grained sand, olive gray, wet. (Fill?) -Trace wood debris		900 TC-MW-16@ 14-15'			0		
15			Borehole terminated at 15 feet bgs.						15	

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302710**

Test Pit  
**TC-MW-17** PAGE 1 OF 1



DATE: STARTED: **4/27/2011** COMPLETED: **4/27/2011**  
 EXCAVATION COMPANY: **Major Drilling**  
 EQUIPMENT: **B-54**  
 OPERATOR: **HSA**  
 SAMPLING EQUIPMENT: **Core Tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **NA**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **RM**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 TEST PIT DEPTH (ft): **13.00**  
 WELL DEPTH (ft): **13**  
 BOREHOLE DIAMETER (in): **8.25**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count/ft	Headspace PID (ppm)	Depth (feet)	Well Construction
			Concrete/Void							
		SP	SP; no odor; Loose, fine to medium grained sand, brown, moist. (Fill)		1345 TC-MW-17@ 2-2.5'			1.3		
		ML	ML; no odor; Stiff, fine grained sand, olive brown, moist. (Fill) -Areas of wood debris		1350 TC-MW-17@ 3-4'			1.8		
5			Highly weathered concrete, moist to wet. (Fill)		1355 TC-MW-17@ 4-5'			.9	5	
		OL	OL; Loose wood debris and sawdust, wet. (Fill)		1400 TC-MW-17@ 5-6'			1.6		
					1410 TC-MW-17@ 7.5-8.5'			0		2" well with sand pack
10					1415 TC-MW-17@ 9-10'			0	10	
			Borehole terminated at 13 feet bgs.						15	

GEO FORM 304 SECOR037 TC SYSTEM BORING LOGS.GPJ SECOR037.GDT 11/2/11

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-MW-18** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **7/18/12** COMPLETED: **7/18/12**  
 DRILLING COMPANY: **Cascade Drilling**  
 DRILLING EQUIPMENT: **Geoprobe (7730 DT)**  
 DRILLING METHOD: **Direct Push**  
 SAMPLING EQUIPMENT: **5' Core Tube/PID**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7.0**  
 STATIC DTW (ft): **4.0**  
 WELL CASING DIA. (in): **2.0**  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): **15.0**  
 BOREHOLE DEPTH (ft): **15.0**  
 BOREHOLE DIA. (in): **4.0**  
 CHECKED BY: **PH/JS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
1030			12" Asphalt/road base							
		SP	SAND ; SP; gray; medium-grained; medium dense; moist; no odor; no gravels. (fill)		1035 C-MW-18-1-1.5'			0.5		Flush mount well box with concrete
			Wood fragments. (fill)		1040 C-MW-18-2-2.5'			1.5		Bentonite seal
		OL	OL; brown; moist; strong organic odor; loose wood debris and sawdust. (fill)		1043 C-MW-18-3-3.5'			0.0		
			Trace large (~2") wood fragments. (fill)							
1044	5								5	
			Saturated; moderate organic odor; (fill)		1045 C-MW-18-7-7.5'			0.0		
1047	10				1047 T-MW-18-10-10.5'			0.0	10	2" well with sand pack
		ML	SILT ; ML; gray; low plasticity; soft; saturated; no gravels. (fill)		1050 MW-18-12-12.5'			0.7		
		OL	OL; brown; saturated; moderate organic odor; loose wood debris and sawdust. (fill)							
		SP	SAND ; SP; black; medium-grained; medium dense; saturated; no odor; no gravels; trace small shells		1053 MW-18-14.5-15'			0.3	15	
1053	15		Borehole terminated at 15 feet.							

GEO FORM 304 TC-MW-18 AND -19.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/26/12



PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

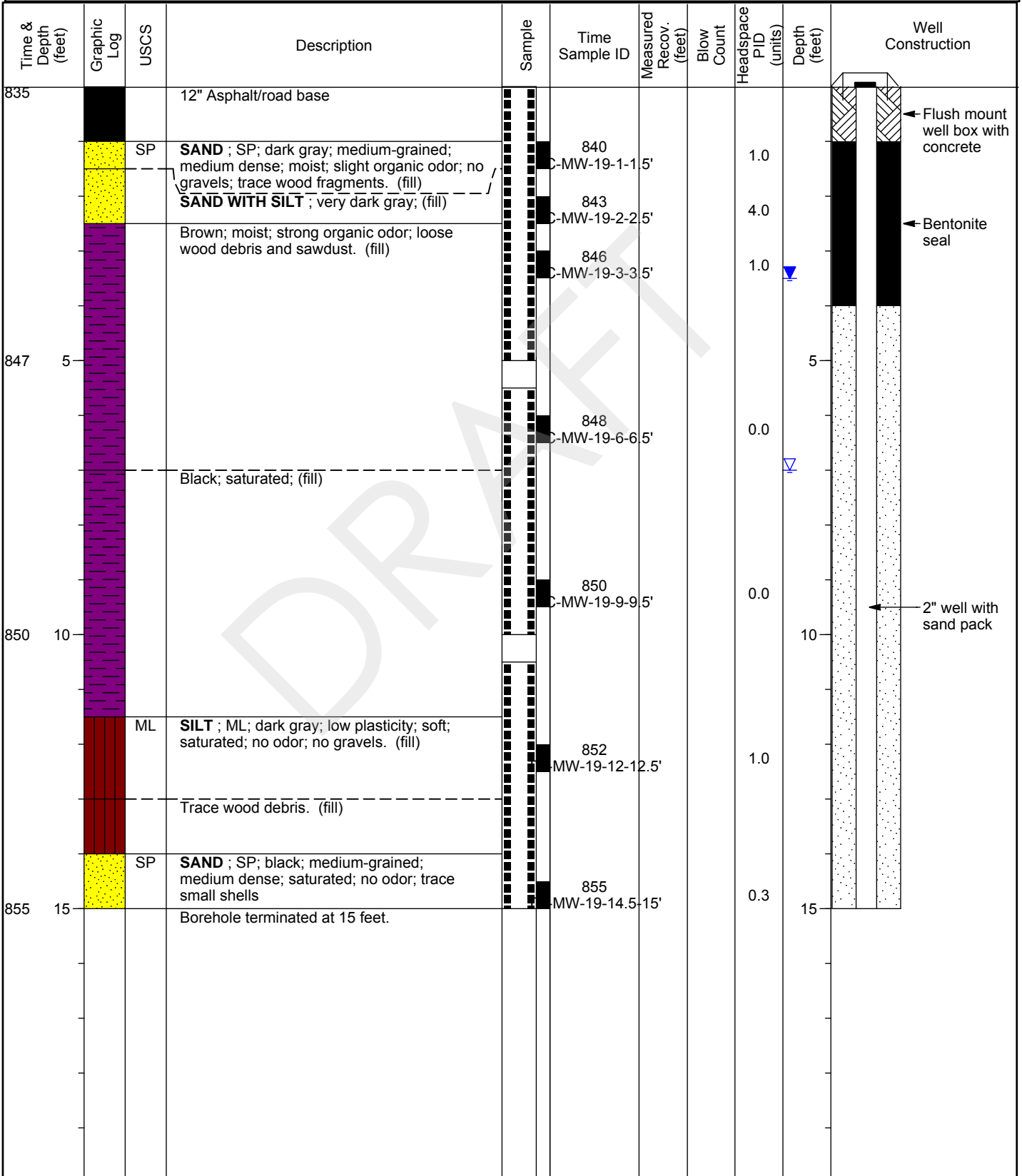
**TC-MW-19** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **7/18/12** COMPLETED: **7/18/12**  
 DRILLING COMPANY: **Cascade Drilling**  
 DRILLING EQUIPMENT: **Geoprobe (7730 DT)**  
 DRILLING METHOD: **Direct Push**  
 SAMPLING EQUIPMENT: **5' Core Tube/PID**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7.0**  
 STATIC DTW (ft): **3.5**  
 WELL CASING DIA. (in): **2.0**  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): **15.0**  
 BOREHOLE DEPTH (ft): **15.0**  
 BOREHOLE DIA. (in): **4.0**  
 CHECKED BY: **PH/JS**



PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**TC-MW-20**

DRILLING: STARTED **3/11/14** COMPLETED: **3/11/14**  
 INSTALLATION: STARTED **3/11/14** COMPLETED: **3/11/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT/auger**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7**  
 STATIC DTW (ft): **3.90**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft): **15**  
 BOREHOLE DIAMETER (in): **9**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Asphalt							
			Base material (gravel)							
5		ML	<b>SILT SOME SAND ; ML; gray; low plasticity; loose; moist; no odor; areas of gravel, wood, and concrete debris</b>		TC-MW-20 (5')	4/5		2.6 (ppm)	5	Flush-mount well box with concrete/ bentonite seal Bentonite Seal 2-inch PVC blank casing
		SP-SM	<b>WELL-GRADED SAND SOME SILT ; SP-SM; gray; fine-grained; loose; moist to wet; no odor; many wood fragments, pink staining</b>			4/5		2.5 (ppm)		Sand Pack
10		ML	<b>SILT ; ML; dark gray; medium stiff; wet; no odor; some concrete and wood fragments</b>		TC-MW-20 (10')			5.1 (ppm)	10	2-inch PVC 0.020 screen
15			Borehole terminated at 15 feet.					0.5 (ppm)	15	Monitoring Well Tag BIE 966 Water sample collected on 3/13/14

GEO FORM 304 TC\_SYSTEMS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 4/29/14

PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



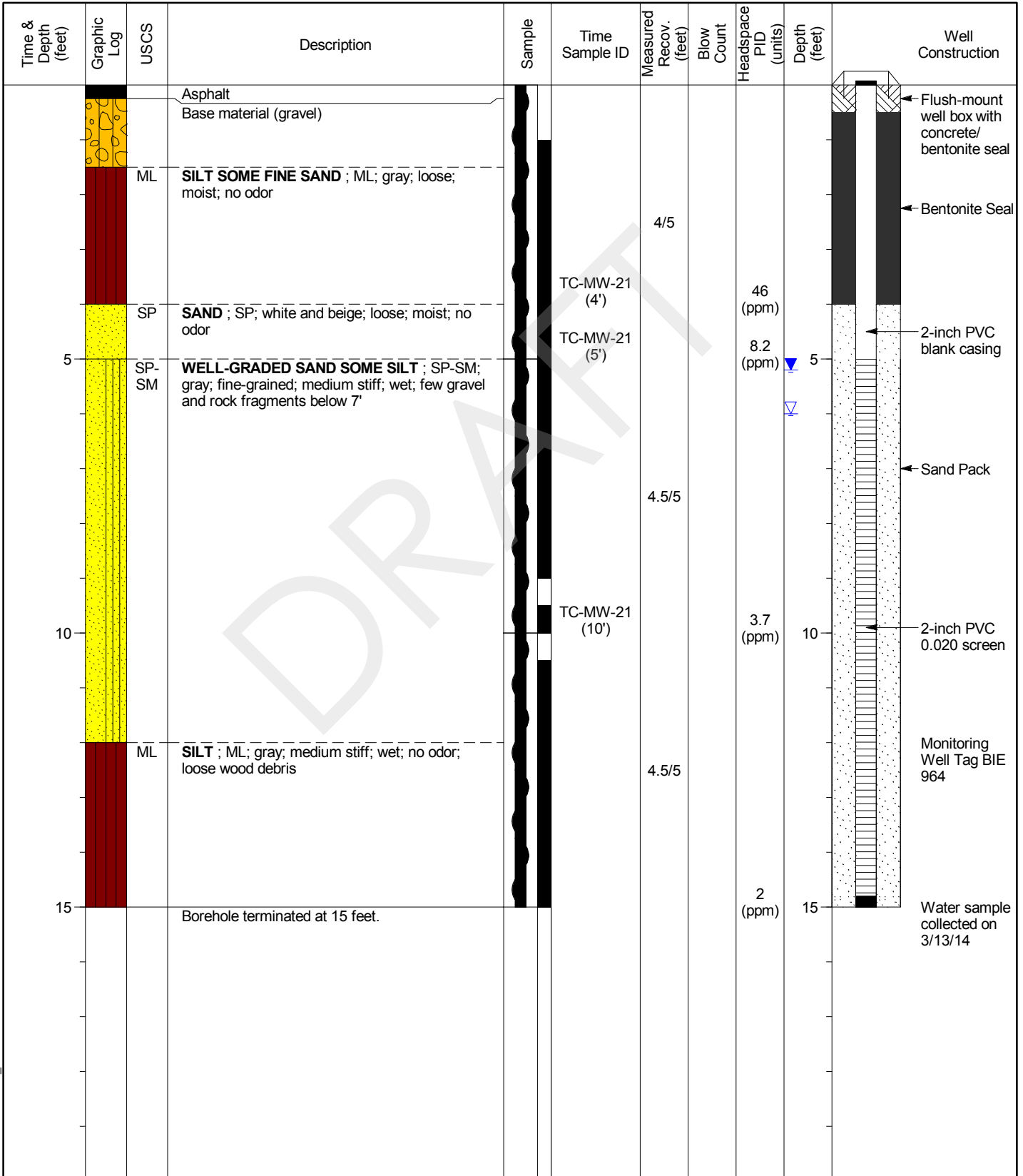
PAGE 1 OF 1

**TC-MW-21**

DRILLING: STARTED **3/11/14** COMPLETED: **3/11/14**  
 INSTALLATION: STARTED **3/11/14** COMPLETED: **3/11/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT/auger**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **5.20**  
 WELL CASING DIAMETER (in): **2**  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft): **15**  
 BOREHOLE DIAMETER (in): **9**  
 CHECKED BY: **MS**



GEO FORM 304 TC\_SYSTEMS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 4/29/14

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-1** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
900		ML	12" Asphalt/Road base <b>SANDY SILT</b> ; ML; very dark brown; low plasticity; stiff; moist; trace small round gravels. (Fill)		910 TC-SB-1-0.5'-1'			1.2	
					913 TC-SB-1-1'-2'			2.1	
		SP	<b>SAND</b> ; SP; very dark gray; fine-grained; medium dense; moist; non-cohesive. (Fill)		NS			1.7	
920	5								5
		OL	OL; Sawdust; very moist; organic odor. (Fill) Saturated		925 TC-SB-1-7'-8'			0.0	
			Wood fragments and debris. (Fill)		930 TC-SB-1-9'-10'			0.0	
935	10		Borehole terminated at 10 feet.						10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-2** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **12.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Asphalt/Road base						
1350		ML	<b>SILT WITH SAND</b> ; ML; dark gray; low plasticity; stiff; moist. (Fill)		1355 TC-SB-2-0.5'-1'			0.0	
		SP	<b>SAND WITH SILT</b> ; SP; dark gray; medium dense; moist; non-cohesive. (Fill)		1400 TC-SB-2-2'-3'			0.0	
			Some fine-small subrounded gravels. (Fill)						
1402		OL	OL; Wood debris and sawdust; moist. (Fill)		NS			0.0	5
			Saturated						
		SP	<b>SILTY SAND</b> ; SP; dark gray; saturated; trace fine subrounded gravels.		1405 TC-SB-2-8'-9'			0.0	
1407					1410 TC-SB-2-11'-12'			0.0	10
			Borehole terminated at 12 feet.						

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-3** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.5** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)		
1300		ML	12" Asphalt/Road base <b>SILT</b> ; ML; dark gray; stiff, moist; some small subrounded gravels. (Fill)								
			Dark gray with few light gray mottles. (Fill)			1310 TC-SB-3- 1'-2'			0.0		
							1315 TC-SB-3- 2'-3'			0.0	
							1317 TC-SB-3- 3'-4'			0.0	
1320		OL	OL; Sawdust and wood debris; moist. (Fill)								
			Trace small rounded gravels; trace fine white (quartz-like) grit; saturated. (Fill)			NS			0.0		
1325			Borehole terminated at 10 feet.		1325 TC-SB-3- 9'-10'			0.0	10		

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-4** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.5** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Asphalt/Road base						
1235		ML	<b>SILT WITH GRAVEL</b> ; ML; dark gray; low plasticity; soft; moist; some small-medium rounded gravels. (Fill)						
			Trace wood debris. (Fill)		1240 TC-SB-4- 1'-2'			0.0	
					1245 TC-SB-4- 3'-4'			0.2	
1247		OL	OL; Sawdust and wood debris; moist. (Fill)						5
			Saturated		1250 TC-SB-4- 6'-7'			0.0	
			Very large wood fragment (>3") @ 9'. (Fill)		1255 TC-SB-4- 9'-10'			0.0	
1255			Borehole terminated at 10 feet.						10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-5** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	
1440		SP	12" Asphalt/Road base <b>SAND</b> ; SP; gray; fine-grained; medium dense; moist; non-cohesive; trace shells. (Fill)		1445 TC-SB-5-1'-2'			0.0		
			<b>SILTY SAND</b> ; (Fill)		1450 TC-SB-5-2'-3'			0.0		
			Trace concrete debris. (Fill)		1455 TC-SB-5-4'-5'				0.0	
1455		5			Borehole terminated at 5 feet.					5

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT



PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-6** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Asphalt/Road base						
820		ML	<b>SANDY SILT</b> ; ML; dark brown; low plasticity; stiff; moist. (Fill)		NS			0.0	
			Some wood debris. (Fill)		830 TC-SB-6- 2'-3'			0.0	
			Trace small yellow fissile grit. (Fill)		835 TC-SB-6- 3'-4'			0.0	
			Slight HC odor; Increase in wood debris. (Fill)						
837	5		Wood debris; moist; slight HC odor; sheen. (Fill)						5
			Saturated		840 TC-SB-6- 6'-7'			30.1	
			Heavy sheen. (Fill)						
					845 TC-SB-6- 9'-10'			19.2	
845	10		Borehole terminated at 10 feet.						10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-7** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6.0**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): --  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **10.5**  
 BOREHOLE DIA. (in): **3.0**  
 CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
920			12" Asphalt/Road base						
		ML	Highly weathered concrete						
		ML	<b>SANDY SILT</b> ; ML; dark brown; low plasticity; soft; moist; some small rounded gravels. (Fill)		NS			0.5	
					NS			0.0	
		OL	OL; Wood debris; moist. (Fill)						
			Sawdust with wood debris. (Fill)		930 TC-SB-7- 3'-4'			0.8	
932			Saturated						5
					935 TC-SB-7- 6'-7'			0.5	
		SP	<b>SAND</b> ; SP; gray; medium dense; saturated; non-cohesive. (Fill)						
		OL	OL; Sawdust; saturated. (Fill)		940 TC-SB-7- 9'-10'			0.0	
940			Borehole terminated at 10.5 feet.						10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-8** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6.5**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): --  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **10.0**  
 BOREHOLE DIA. (in): **3.0**  
 CHECKED BY: **PH**

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1015			12" Asphalt/Road base Highly weathered concrete						
			No sample recovery 1.5' to 3'						
		ML	<b>SANDY SILT</b> ; ML; very dark brown; low plasticity; stiff, moist. (Fill)		1035 TC-SB-8- 3'-4'			0.0	
1037		OL	OL; Sawdust. (Fill)						5
		ML	<b>SANDY SILT</b> ; ML; very dark brown; low plasticity; stiff, moist						
			Saturated		1040 TC-SB-8- 6'-7'			0.0	
			Very dark gray; trace fine rounded gravels						
1045			Borehole terminated at 10 feet.		1045 TC-SB-8- 9'-10'			0.0	10

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-9** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1130		ML	12" Asphalt/Road base <b>SANDY SILT</b> ; ML; dark gray with light gray mottles; low plasticity; soft; moist. (Fill)		NS			0.0	
			Trace wood debris. (Fill)						
			Sawdust and wood debris; moist. (Fill)		1135 TC-SB-9- 2'-3'			0.1	
					1145 TC-SB-9- 4'-5'			0.0	
1145	5		Borehole terminated at 5 feet.						5

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-10** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1100		ML	12" Asphalt/Road base <b>SILT WITH SAND</b> ; ML; dark gray; low plasticity; stiff; moist; trace small rounded gravels. (Fill)		1105 TC-SB-10-0.5'-1'			0.0	
			Trace sawdust and wood debris. (Fill)		1108 TC-SB-10-1'-2'			0.0	
			Very dark gray. (Fill)		1110 TC-SB-10-2'-3'			0.0	
			Some small-medium rounded gravels. (Fill)		1114 TC-SB-10-4'-5'			0.0	
1114 5					Borehole terminated at 5 feet.				

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-11** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1040		ML	12" Asphalt/Road base SILT ; ML; dark gray; low plasticity; stiff; moist; large (>3") quartz gravel @ 1.5'. (Fill)		1045 TC-SB-11-0.5'-1'			0.2	
					1047 TC-SB-11-1'-2'			32.0	
					1050 TC-SB-11-2'-3'			17.2	
			Sawdust and wood debris with trace silt; strong sulfur odor. (Fill)		1055 TC-SB-11-4'-5'			0.8	
1055	5		Borehole terminated at 5 feet.						5

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-12** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **7.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Asphalt/Road base						
835		ML	<b>SILT</b> ; ML; very dark gray; low plasticity; stiff; moist; slight sulfur odor; some small rounded gravels. (Fill)						
			Trace light gray mottles. (Fill)						
		OL	OL; Sawdust; moist; strong organic odor. (Fill)		NS			0.0	
845					845 TC-SB-12-4'-5'			2.0	5
			Saturated; wood debris. (Fill)						
853			Borehole terminated at 10 feet.		853 TC-SB-12-9'-10'			3.7	10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-13** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/18/12** COMPLETED: **10/18/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1155		SP	12" Asphalt/Road base <b>SAND</b> ; SP; dark gray; fine-grained; medium dense; moist; non-cohesive; trace small subrounded gravels. (Fill)		1200 TC-SB-13-1'-2'			0.0	
			Increase in gravels. (Fill)		1203 TC-SB-13-2'-3'			0.0	
		OL	OL; Sawdust; moist; strong sulfur odor. (Fill)		1207 TC-SB-13-4'-5'			3.7	
1207 5			Borehole terminated at 5 feet.						5

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT



PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-14** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/18/12** COMPLETED: **10/18/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
830		SP	4" Concrete slab and 8" sub-slab void <b>SAND</b> ; SP; dark brown; fine-grained; loose; moist; non-cohesive. (Fill)						
			Very dark gray; medium dense. (Fill)		NS			1.0	
		OL	OL; Wood debris; moist. (Fill)						
840		SP	<b>GRAVELLY SAND</b> ; SP; very dark gray; fine-grained; medium dense; moist; many small rounded gravels; non-cohesive. (Fill)		840 TC-SB-14-4'-5'			1.0	5
			Saturated; moderate organic odor. (Fill)						
			Trace wood debris. (Fill)		NS			0.0	
					850 TC-SB-14-9'-10'			0.0	
850			Borehole terminated at 10 feet.						10

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-15** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7.0**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): --  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **15.0**  
 BOREHOLE DIA. (in): **3.0**  
 CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1425		SP	4" Concrete slab, 8" sub-slab void <b>SAND WITH SILT</b> ; SP; very dark gray; fine-grained; loose; moist; trace small rounded gravels; non-cohesive. (Fill)		1430 TC-SB-15-0.5'-1'			0.5	
			Trace light green staining. (Fill)		1433 TC-SB-15-1'-2'			0.3	
			Increase in silt. (Fill)		1435 TC-SB-15-2'-3'			0.1	
		OL	OL; Sawdust; moist; organic odor. (Fill)		NS			0.2	
1436					1440 TC-SB-15-6'-7'			0.5	
			Saturated; (Fill)						
1445		ML	<b>SILT</b> ; ML; dark gray; medium plasticity; stiff; saturated						
			Low plasticity; trace mica		1450 TC-SB-15-14'-15'			0.3	
1450			Borehole terminated at 15 feet.						15

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-16** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **7.5** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **15.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	
1200		SP	4" Concrete slab, 8" sub-slab void <b>SAND</b> ; SP; light brown; fine-grained; loose; moist; non-cohesive. (Fill)		1210 TC-SB-16-1'-2'			0.0		
			<b>SILTY SAND</b> ; dark brown; medium dense; some small rounded gravels; trace wood debris. (Fill)		1215 TC-SB-16-2'-3'			0.2		
1225					1225 TC-SB-16-4'-5'			0.3		
5										5
					Saturated. (Fill)					
1230		OL	OL; Wood debris; saturated. (Fill)		NS			0.0	10	
		ML	<b>SILT</b> ; ML; gray; medium plasticity; stiff; saturated							
		SP	<b>SAND</b> ; SP; very dark gray; fine-grained; medium dense; saturated; non-cohesive							
1240			Borehole terminated at 15 feet.		1240 TC-SB-16-14'-15'			0.0	15	

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-17** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/17/12** COMPLETED: **10/17/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.5** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **15.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1525		SP	3" Concrete slab, 9" sub-slab void <b>SAND</b> ; SP; brown; fine-grained; loose; moist; non-cohesive. (Fill)		1530 TC-SB-17-1'-2'			0.3	
			<b>SILTY SAND</b> ; dark brown. (Fill)		1535 TC-SB-17-2'-3'			0.3	
1528		OL	OL; Sawdust and wood debris; moist. (Fill)		1538 TC-SB-17-4'-5'			0.5	5
5			Trace dark red staining. (Fill)						
				Saturated. (Fill)		NS			0.0
1540									
		ML	<b>SILT</b> ; ML; gray; medium plasticity; stiff; saturated						
		SP	<b>SAND</b> ; SP; gray; fine-grained; medium dense; saturated; non-cohesive; trace mica.						
1544					1545 TC-SB-17-14'-15'			0.0	15
15			Borehole terminated at 15 feet.						

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-18** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/18/12** COMPLETED: **10/18/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			4" Concrete slab, 8" sub-slab void						
1020		SP	<b>SAND</b> ; SP; brown; fine-grained; loose; moist; non-cohesive; trace iron oxide staining. (Fill)						
			Trace wood debris; slight organic odor. (Fill)		1025 TC-SB-18-1'-2'			0.0	
		OL	OL; Wood debris; very moist. (Fill)						
1030			Saturated. (Fill)		1030 TC-SB-18-4'-5'			0.3	5
1035			Borehole terminated at 10 feet.		1035 TC-SB-18-9'-10'			0.0	10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-19** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/18/12** COMPLETED: **10/18/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft): EASTING (ft):  
 LAT: LONG:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **6.0** WELL DEPTH (ft): ---  
 STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **10.0**  
 WELL CASING DIA. (in): -- BOREHOLE DIA. (in): **3.0**  
 LOGGED BY: **RM** CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			4" Concrete slab, 8" sub-slab void						
1115		SP	<b>SAND</b> ; SP; brown; fine-grained; loose; moist; non-cohesive. (Fill)						
			<b>SILTY SAND</b> ; dark brown with small light gray mottles; trace small subangular gravels. (Fill)		1120 TC-SB-19-1'-2'			0.0	
			Light gray with no mottles. (Fill)						
		OL	OL; Sawdust and wood debris; moist; trace medium-grained subrounded white grit/sand. (Fill)						
1125			Saturated. (Fill)		1125 TC-SB-19-4'-5'			0.0	5
		SP	<b>SAND</b> ; SP; very dark gray; coarse-grained; medium dense; saturated; non-cohesive.						
1130			Borehole terminated at 10 feet.		1130 TC-SB-19-9'-10'			0.0	10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-20** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/18/12** COMPLETED: **10/18/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6.5**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): --  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **10.0**  
 BOREHOLE DIA. (in): **3.0**  
 CHECKED BY: **PH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			4" Concrete slab, 8" sub-slab void						
945		SP	<b>SAND</b> ; SP; brown; fine-grained; loose; moist; trace small subrounded gravels; non-cohesive. (Fill)						
			<b>SILTY SAND</b> ; dark brown. (Fill)		950 TC-SB-20-1'-2'			0.0	
			Wood debris; moist; trace dark red staining. (Fill)						
			No dark red staining; increase in moisture. (Fill)		955 TC-SB-20-4'-5'			0.1	
955			Saturated. (Fill)						
			Borehole terminated at 10 feet.		1000 TC-SB-20-9'-10'			0.0	
1000									10

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

DRAFT

PROJECT: **TC Systems**  
 LOCATION: **Everett, Washington**  
 PROJECT NUMBER: **212302839**

WELL / PROBEHOLE / BOREHOLE NO:

**TC-SB-21** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **10/16/12** COMPLETED: **10/16/12**  
 DRILLING COMPANY: **ESN Northwest**  
 DRILLING EQUIPMENT: **Truck-mounted Geoprobe**  
 DRILLING METHOD: **Direct-Push**  
 SAMPLING EQUIPMENT: **Acetate liner (4')**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6.0**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): --  
 LOGGED BY: **RM**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **10.0**  
 BOREHOLE DIA. (in): **3.0**  
 CHECKED BY: **PH**

GEO FORM 304 TC SYSTEMS SOIL BORINGS TC-SB-1 THRU TC-SB-21.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/5/12

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
950		ML	12" Asphalt/Road base <b>SANDY SILT</b> ; ML; very dark gray; low plasticity; stiff; moist; trace small rounded gravel. (Fill)					0.0	5
			Increase in sand. (Fill)						
			Decrease in sand; trace small shells. (Fill)						
		SP	<b>SAND</b> ; SP; dark gray; fine-grained; medium dense; moist; non-cohesive. (Fill)						
1000		ML	<b>SILT</b> ; ML; very dark gray; low plasticity; stiff; moist; trace small rounded gravels. (Fill)						
		Saturated; some wood debris. (Fill)							
		OL	OL; Sawdust; saturated; sulfur/organic odor. (Fill)		1000 TC-SB-21-4'-5'			0.0	
1005			Borehole terminated at 10 feet.		1005 TC-SB-21-9'-10'			0.0	10



PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**TC-SB-22**

DRILLING: STARTED **3/12/14** COMPLETED: **3/12/14**  
 INSTALLATION: STARTED **3/12/14** COMPLETED: **3/12/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIAMETER (in): ---  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft):  
 BOREHOLE DIAMETER (in): **2**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
			Base material (gravel)							
		SM	<b>SILTY SAND</b> ; SM; dark gray; stiff; moist; no odor; some concrete and wood debris			4/5				
5					TC-SB-22 (5')			1.5 (ppm)	5	
						3.5/5				
										← Bentonite Seal
10		ML	<b>SILT</b> ; ML; dark gray; loose; wet; no odor; mostly wood debris, some gravel		TC-SB-22 (10')			0.6 (ppm)	10	
						4/5				
		OL	<b>WOOD DEBRIS</b> , brown, wet, no odor, mostly wood fragments and sawdust							
15			Borehole terminated at 15 feet.					0.5 (ppm)	15	

GEO FORM 304 TC\_SYSTEMS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 4/29/14

PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



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**TC-SB-23**

DRILLING: STARTED **3/12/14** COMPLETED: **3/12/14**  
 INSTALLATION: STARTED **3/12/14** COMPLETED: **3/12/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIAMETER (in): ---  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft):  
 BOREHOLE DIAMETER (in): **2**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
	Asphalt		Asphalt							
	Base material (gravel)		Base material (gravel)							
5		ML	<b>SANDY SILT</b> ; ML; dark gray; soft; moist; no odor; some gravel and concrete, some red staining		TC-SB-23 (5')	4/5		3.5 (ppm)	5	
						3.5/5				← Bentonite Seal
10		OL	OL; <b>SAWDUST</b> brown, no odor							
		ML	<b>SILT</b> ; ML; dark brown to dark gray; loose; wet; no odor; mostly wood fragments		TC-SB-23 (10')			1.5 (ppm)	10	
15						4/5		1.5 (ppm)	15	
			Duplicate sample collected from 5' (TC-01) Borehole terminated at 15 feet.							

GEO FORM 304 TC\_SYSTEMS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 4/29/14

PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**TC-SB-24**

DRILLING: STARTED **3/12/14** COMPLETED: **3/12/14**  
 INSTALLATION: STARTED **3/12/14** COMPLETED: **3/12/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **11**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIAMETER (in): ---  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft):  
 BOREHOLE DIAMETER (in): **2**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
			Base material (gravel)							
		SM	<b>SILTY SAND SOME GRAVEL</b> ; SM; gray; fine-grained; stiff; moist; no odor; poorly sorted		TC-SB-24 (2')	4/5		2.0 (ppm)		
5					TC-SB-24 (5')			3.1 (ppm)	5	
						3.5/5				← Bentonite Seal
10			<b>WOOD FRAGMENTS</b> brown, dense, wet, no odor					4.0 (ppm)	10	
			<b>WOOD FRAGMENTS</b> with silt, gray, wet, wood pulp and sawdust			3.5/5				Collected reconnaissance water sample, turbidity - 19.8 NTU
15		ML	<b>SILT</b> ; ML; gray; stiff; wet; no odor; wood fragments		TC-SB-24 (15')			306 (ppm)	15	
			Submitted TC-SB-24 (15') for HCID analysis Borehole terminated at 15 feet.							

PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**TC-SB-25**

DRILLING: STARTED **3/12/14** COMPLETED: **3/12/14**  
 INSTALLATION: STARTED **3/12/14** COMPLETED: **3/12/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **9**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIAMETER (in): ---  
 LOGGED BY: **GMC**  
 EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft):  
 BOREHOLE DIAMETER (in): **2**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
			Base material (gravel)							
		SM	<b>SILTY SAND</b> ; SM; gray to tan; loose; moist; no odor		TC-SB-25 (2')	4/5				
5		SM	<b>SILTY SAND</b> ; SM; light gray; medium dense; moist; no odor; some gravel and wood debris		TC-SB-25 (5')			6 (ppm)	5	
		OL	<b>OL; WOOD DEBRIS</b> brown, loose, wet, large fragments grading to sawdust at depth			5/5				← Bentonite Seal
10								7.1 (ppm)	10	
		ML	<b>SILT</b> ; ML; dark gray; wet; no odor; with wood pulp			4/5				
15			Borehole terminated at 15 feet.					4.3 (ppm)	15	

PROJECT: **TC Systems/Norton Industries**  
 LOCATION: **1032 W. Marine View Dr., Everett, WA**  
 PROJECT NUMBER: **185750139**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**TC-SB-26**

DRILLING: STARTED **3/12/14** COMPLETED: **3/12/14**  
 INSTALLATION: STARTED **3/12/14** COMPLETED: **3/12/14**  
 DRILLING COMPANY: **ESN**  
 DRILLING EQUIPMENT: **Geoprobe 7800**  
 DRILLING METHOD: **DPT**  
 SAMPLING EQUIPMENT: **Core tube (5')**

NORTHING (ft):  
 LATITUDE:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **7**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIAMETER (in): ---  
 LOGGED BY: **GMC**

EASTING (ft):  
 LONGITUDE:  
 TOC ELEV (ft):  
 BOREHOLE DEPTH (ft): **15**  
 WELL DEPTH (ft):  
 BOREHOLE DIAMETER (in): **2**  
 CHECKED BY: **MS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
			Base material (gravel)							
		SM	<b>SILTY SAND</b> ; SM; dark gray, fine-grained; stiff; moist; no odor			4/5				
5					TC-SB-26 (5')			15 (ppm)	5	
		OL	OL; <b>WOOD DEBRIS</b> with some silt, gray, loose, wet, no odor, some red staining in wood			3/5				
10		OL	<b>SILT</b> ; OL; <b>WOOD DEBRIS</b> finer and pulpier than above, appears to be sawdust, no odor		TC-SB-26 (10')			3.5 (ppm)	10	
						3/5				
15			Borehole terminated at 15 feet.					1.2 (ppm)	15	

← Bentonite Seal

PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:

**TC-MW-6-V**

PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **11/12/15** COMPLETED: **11/12/15**  
 DRILLING COMPANY: **EDI**  
 DRILLING EQUIPMENT: **B-61**  
 DRILLING METHOD: **HSA**  
 SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): ---  
 LOGGED BY: **PH**  
 EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **16.5**  
 BOREHOLE DIA. (in): **8**  
 CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Concrete/Crushed Rock						
		SM	SM; Loose to medium dense, silty-fine to medium grained sand with gravel and organics, dark brown, moist. (Fill)						
		SM	SM; Loose, silty-fine to medium grained sand with gravel, grayish brown, moist. (Fill)		1000 MW-6-V-3		5 15 11		
5.0		OL	OL; Very loose to loose, wood debris (pile) with minor silty-sand and sandy silt to silty sand with organics, grayish brown to dark brown, wet. (Fill)		1005 MW-6-V-5		2 2 2		5
		ML	ML; Soft, silt with areas of fibrous wood, yellowish brown, wet. (Fill) -Pulp from 10.5-11'		1015 MW-6-V-3		5 1 1		
10.0		SM	SM; Loose, silty-fine to medium grained sand with organics, dark brown to grayish brown, wet. (Fill)		1025 MW-6-V-10		1 2 5		10
		SM	SM; Loose, silty-fine to medium grained sand with organics, dark brown to grayish brown, wet. (Fill)		1030 MW-6-V-13		1 1 1		
15.0					1040 MW-6-V-15		3 2 6		15
			Borehole terminated at 16.5 feet.						

PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:

**TC-MW-7-V**

PAGE 1 OF 1



DRILLING / INSTALLATION:

STARTED **11/12/15** COMPLETED: **11/12/15**

DRILLING COMPANY: **EDI**

DRILLING EQUIPMENT: **B-61**

DRILLING METHOD: **HSA**

SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):

LAT:

GROUND ELEV (ft):

INITIAL DTW (ft): **5.5**

STATIC DTW (ft): **Not Encountered**

WELL CASING DIA. (in): ---

LOGGED BY: **PH**

EASTING (ft):

LONG:

TOC ELEV (ft):

WELL DEPTH (ft): ---

BOREHOLE DEPTH (ft): **16.5**

BOREHOLE DIA. (in): **8**

CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Concrete/Crushed Rock						
		SP	SP; Loose, medium to coarse grained sand, dark brown to black, moist. (Fill)						
					1355 MW-7-V-3		7 5 2		
5.0		OL	OL; Very loose to loose, organic debris with fine silt and sand (local piles), dark brown to black, wet. (Fill) -Rock and pile at 5' overstated blowcounts		1400 MW-7-V-5		1 27 50		5
		OL	OL; Very loose to loose, layers of wood pulp, coarse wood, and silty-sand, black to brown, wet. (Fill)		1405 MW-7-V-7.5		4 2 1		
10.0		ML	ML; Medium stiff, silt with clay and organics (pile, shredded wood), dark brown to black, wet. (Fill)		1415 MW-7-V-10		3 2 1		10
					1425 MW-7-V-12.5		5 4 5		
15.0					1430 MW-7-V-15		3 3 4		15
			Borehole terminated at 16.5 feet.						

PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:

**TC-MW-9R-V**

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DRILLING / INSTALLATION:

STARTED **11/12/15** COMPLETED: **11/12/15**

DRILLING COMPANY: **EDI**

DRILLING EQUIPMENT: **B-61**

DRILLING METHOD: **HSA**

SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):

LAT:

GROUND ELEV (ft):

INITIAL DTW (ft): **6.5**

STATIC DTW (ft): **Not Encountered**

WELL CASING DIA. (in): ---

LOGGED BY: **PH**

EASTING (ft):

LONG:

TOC ELEV (ft):

WELL DEPTH (ft): ---

BOREHOLE DEPTH (ft): **16.5**

BOREHOLE DIA. (in): **8**

CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Crushed Rock						
		SM	SM; Loose to medium dense, silty-fine to medium grained sand with gravel, dark brown, moist. (Fill)						
		SP	SP; Medium dense, fine to medium grained sand with silt and shell fragments, grayish brown, moist. (Fill)		800 MW-9-V-3.5		12 15 16		
		OL	OL; Very loose to loose, organic debris with fine silt and sand, dark brown to black, wet. (Fill)						
5.0							0 2 5		5
					810 MW-9-V-6				
					815 MW-9-V-8		4 2 1		
10.0					820 MW-9-V-10		3 2 4		10
					825 MW-9-V-12.5		4 3 4		
15.0					830 MW-9-V-14.5		8 8 10		15
		SM	SM; Medium dense, silty-fine to medium grained sand with shell fragments, grayish brown, wet. (Native?)						
			Borehole terminated at 16.5 feet.						



PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:

**TC-SB-12-V**

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DRILLING / INSTALLATION:

STARTED **11/12/15** COMPLETED: **11/12/15**

DRILLING COMPANY: **EDI**

DRILLING EQUIPMENT: **B-61**

DRILLING METHOD: **HSA**

SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):

LAT:

GROUND ELEV (ft):

INITIAL DTW (ft): **4.5**

STATIC DTW (ft): **Not Encountered**

WELL CASING DIA. (in): ---

LOGGED BY: **PH**

EASTING (ft):

LONG:

TOC ELEV (ft):

WELL DEPTH (ft): ---

BOREHOLE DEPTH (ft): **16.5**

BOREHOLE DIA. (in): **8**

CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Concrete/Crushed Rock						
		SM	SM; Medium dense, silty-fine to medium grained sand with fine organics, brown, moist. (Fill)						
		SM	SM; Medium dense, silt with sand and highly eroded concrete(?), tan to greenish tan, moist. (Fill)		1250 SB-12-V-3		5 7 9		
5.0		OL	OL; Very loose to loose, coarse organic debris with fine silt and sand, brown to black, wet. (Fill)		1255 SB-12-V-5		2 3 7		5
					1310 SB-12-V-7.5		3 4 3		
10.0					1315 SB-12-V-9.5		5 20 8		10
		ML	ML; Medium stiff, silt with organic pieces, grayish brown to black, moist to wet. (Fill)		1320 SB-12-V-12		0 1 5		
15.0		SM	SM; Loose to medium dense, silty-fine to medium grained sand trace organics, grayish brown, wet. (Fill?)		1325 SB-12-V-15		2 4 6		15
			Borehole terminated at 16.5 feet.						

PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:  
**TC-SB-6-V**

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DRILLING / INSTALLATION:  
 STARTED **11/12/15** COMPLETED: **11/12/15**  
 DRILLING COMPANY: **EDI**  
 DRILLING EQUIPMENT: **B-61**  
 DRILLING METHOD: **HSA**  
 SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **4**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): ---  
 LOGGED BY: **PH**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **16.5**  
 BOREHOLE DIA. (in): **8**  
 CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Concrete/Crushed Rock						
		SM	SM; Loose to medium dense, silty-fine to medium grained sand with gravel, dark brown, moist. (Fill)						
		OL	OL; Very loose to loose, fine organic debris with fine silt and sand, dark brown to black, wet. (Fill)		905 SB-6-V-3		7 6 9		
5.0		OL	OL; Very loose to loose, coarse organic debris with fine silt and sand, brown, wet. (Fill)		910 SB-6-V-5		3 2 3		5
					920 SB-6-V-8		3 3 4		
10.0					925 SB-6-V-10		10 6 6		10
					930 SB-6-V-12.5		4 4 5		
15.0		SP-SM	SP-SM; Loose, silty-fine to medium grained sand with shell fragments, mottled grayish brown, wet. (Native?)		935 SB-6-V-15		0 2 1		15
			Borehole terminated at 16.5 feet.						

PROJECT: **Norton Industries**  
 LOCATION: **Marine View Drive, Everett**  
 PROJECT NUMBER:

Boring No:  
**TC-SB-8-V**

PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **11/12/15** COMPLETED: **11/12/15**  
 DRILLING COMPANY: **EDI**  
 DRILLING EQUIPMENT: **B-61**  
 DRILLING METHOD: **HSA**  
 SAMPLING EQUIPMENT: **Split Spoon, Dames and Moore**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **6**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): ---  
 LOGGED BY: **PH**  
 EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): ---  
 BOREHOLE DEPTH (ft): **16.5**  
 BOREHOLE DIA. (in): **8**  
 CHECKED BY: **MS**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
			Asphalt/Crushed Rock						
		SP	SP; Loose, fine to medium grained sand with gravel and silt, local organics, grayish brown to dark brown, moist. (Fill)						
5.0					1100 SB-8-V-3		4 4 3		
					1105 SB-8-V-5		1 2 2		5
		SP-SM	SP-SM; Loose, silty-fine to medium grained sand, grayish brown, moist. (Fill)						
		ML	ML; Medium stiff, silt with sand, grayish brown, moist. (Fill)						
		OL	OL; Very loose to loose, wood debris with silt and sand, dark brown, wet. (Fill)						
					1115 SB-8-V-7.5		5 3 4		
10.0					1125 SB-8-V-10		6 5 6		10
					1130 SB-8-V-13		1 1 2		
		SM	SM; Very loose, silty-fine to medium grained sand, yellowish brown, moist to wet. (Fill?)						
15.0					1145 SB-8-V-15		3 5 6		15
			Borehole terminated at 16.5 feet.						

## REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Appendix C Well Development Logs  
July 22, 2016

DRAFT

### Appendix C WELL DEVELOPMENT LOGS

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-1  
 Project Name NORTON R.I. Development Subcontractor MAJOR  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria VOLUME & PARAMETERS PER R.I. WORK PLAN  
 Equipment Cleaning Method ALCOX & H<sub>2</sub>O  
 Field Instruments Used HORIBA U22 / WATER LEVEL IND.  
 Development Water Disposal Method DRUMMED FOR OFF-SITE DISP.  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.52 End 4.52 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.10 End 13.10

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	<del>1143</del> 1143	START	over	0.178	Black	6.60	<del>11.58</del> 11.58	
	1145	5cm	over	<del>0.166</del> 0.173	<del>Black</del> Gray	<del>6.60</del> 6.23	11.51	11.58 slight sheen
	1150	20cm	970	0.166	Brownish Gray	6.23	11.51	Slight sheen
	1154	40cm	770	0.164	light brown / gray	6.16	11.60	Slight sheen
	1159	55cm	over	0.157	gray	6.15	11.53	slight sheen

REMARKS: odor & slight sheen observed in drum

# WELL DEVELOPMENT LOG

Project Number 212302718 Well MW-1  
 Project Name NORTON R. I. Development Subcontractor MAJOR  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer Other \_\_\_\_\_  
 Development Criteria VOLUME & PARAMETERS, PER R. I. WORK PLAN  
 Equipment Cleaning Method ALCOX & H<sub>2</sub>O  
 Field Instruments Used HORIBA U22 / WATER LEVEL IND.  
 Development Water Disposal Method DRUMMED FOR OFF-SITE DISP.  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.52 End 4.52 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.10 End 13.10

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	<del>1143</del> 1145	START	over	0.178	Black	6.60	<del>11.61</del> 11.58	
	1145	5cm	over	<del>0.173</del> 0.166	Black gray	<del>6.60</del> 6.23	11.51 11.58	slight sheen
	1150	20cm	970	0.166	Brownish gray	6.23	11.51	slight sheen
	1154	40cm	770	0.164	light brown gray	6.16	11.60	slight sheen
	1159	55cm	over	0.157	gray	6.15	11.53	slight sheen

REMARKS: odor & slight sheen observed in drum

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-2  
 Project Name NORTON RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alconex 2 H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water Level Incl.  
 Development Water Disposal Method Drummed for off-site disp.  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 3.72 End 3.86 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.10 End 13.10

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1216	Start	over	<del>0.0679</del> 0.0876	Black Gray	6.93	13.18	Slight odor
	1218	5gal	over	0.0876	Black Gray	6.57	12.61	Slight odor
	1223	20gal	over	0.118	Brownish Gray	6.33	12.30	Slight odor
	1231	40gal	670	0.139	light brown	6.59	12.01	Slight odor
	1239	55gal	620	0.147	light brown	6.48	11.67	Slight odor

REMARKS:

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-3  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alconex & H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water level ind.  
 Development Water Disposal Method Drummed for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.36 End 4.43 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 12.95 End 12.95

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other	
↓ ↓ ↓ ↓ ↓	4/28/11	1252	Start	over	.099	Gray	6.66	11.88	Slight odor
	1254	5gal	over	0.148	light Brown	6.33	12.02	Slight odor	
	1258	20gal	700	0.160	light Brown	6.44	12.04	Slight odor	
	1308	40gal	660	0.168	light Brown	6.54	12.70	Slight odor	
	1315	55gal	560	0.172	light Brown	6.67	12.50	Slight odor	

REMARKS:



# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-4  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alconex H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water level ind.  
 Development Water Disposal Method Drummed for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.89 End 4.89 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 12.95 End ~~12.95~~ 13.05  
AV

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1405	Start	over	0.153	Very Black	6.45	11.50	Shoen color
	1407	5 gal	over	0.153	Black	6.37	11.38	color
	1412	20 gal	760	0.152	Gray	6.63	11.48	Slight color
	1421	40 gal	790	0.153	Gray	6.70	11.44	Slight color
	1429	55 gal	630	0.153	light brown	6.26	11.22	Slight color

REMARKS: Slight shoen in Drum / color

# WELL DEVELOPMENT LOG

Project Number 212302716 Well MW-5  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alcanox & H<sub>2</sub>O  
 Field Instruments Used Horiba 622 / Water level ind.  
 Development Water Disposal Method Drummed for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.55 End 4.56 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.15 End 13.15

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1329 <del>1330</del> AV	Start	over	0.185	Black	6.71	13.26	Slight odor
	1331	5 gal	760	0.176	Brown	6.43	12.94	Slight odor
	1335	20 gal	650	0.165	light Brown	6.28	12.65	Slight odor
	1347	40 gal	730	0.156	Gray	6.13	12.24	" "
	1354	55 gal	600	0.153	light Brown	6.09	12.39	" "

REMARKS:

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-6  
 Project Name Newton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Aluminum H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water level ind  
 Development Water Disposal Method Drummed for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water:    Start 2.51    End 3.34    Ref. Point Elev. \_\_\_\_\_    Height Above Ground Surface \_\_\_\_\_  
 Total Depth:        Start 13.09    End 13.09

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1446	Start	over	0.099	Black	6.69	11.68	Slight Sheen
	1449	5 gal	over	0.111	Black	6.56	11.55	odor
	1451	20 gal	over	0.120	Black	6.48	11.39	Slight sheen odor
	1500	40 gal	540	0.116	Gray	6.64	11.31	
	1508	55 gal	730	0.119	light Gray	6.59	11.15	

**REMARKS:**

# WELL DEVELOPMENT LOG

Project Number 212302710 Well TC-MW-7  
 Project Name NORTON P.I. Development Subcontractor MAJOR  
 Performed/Supervised JOS/ADAM  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria VOLUME & PARAMETERS, PER RI/FS WORK PLAN  
 Equipment Cleaning Method ALCONOX & H<sub>2</sub>O  
 Field Instruments Used HERRA V22 & WATER LEVEL INDICATOR  
 Development Water Disposal Method DRUMMED FOR CHAR.  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 3.80 End 4.01 Ref. Point Elev. ↙ Height Above Ground Surface FLUSH  
 Total Depth: Start 13.10 End 13.10 SEE PLAN - NOT YET SURVEYED.

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1035	START	OVER	0.212	BLACK	6.62	11.97	ER-2 SULFUR
"	1040	5 gal	780	0.206	CLEAR TO BLACK	6.44	12.42	"
"	1045	20 gal	570	0.201	CLEAR	6.22	12.42	ONLY SLIGHT SUEFTY ORDER.
"	1055	35 gal	590	0.199	CLEAR	6.30	12.04	"
"	1100	55	620	0.196	CLEAR	6.28	12.35	"

REMARKS:

# WELL DEVELOPMENT LOG

Project Number 212382710 Well MW-8  
 Project Name Norton RI Development Subcontractor Majra  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub Pump Surge Block Bailer \_\_\_\_\_ Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR Work Plan  
 Equipment Cleaning Method Alconox H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / water level  
 Development Water Disposal Method Drummed for disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.30 End 4.30 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.21 End 13.21

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/29/11	0853	Start	over	0.364	Black	6.74	11.04	Slight odor
	0856	5gal	over	0.364	Black/gray	6.71	11.11	Slight odor
	0903	20gal	over	0.348	light Brown	6.92	10.41	Slight odor
	0921	40gal	730	0.322	light Brown	6.99	10.74	Slight odor
	0935	55gal	670	0.322	mostly clear	6.87	10.81	

REMARKS:

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW 9  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer \_\_\_\_\_ Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR Work Plan  
 Equipment Cleaning Method Alconox H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / water level  
 Development Water Disposal Method Drummed for disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.37 End 4.40 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.10 End 13.10

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/29/11	0844	Start	over	0.374	Black	6.90	9.99	
	0846	5 gal	over	0.338	Black	6.90	10.04	
	0905	20 gal	over	0.346	Gray	6.85	10.01	
		<del>NM</del> 40 gal						
		<del>NM</del> 55 gal						

**REMARKS:** well dry @ 0852 stopped pump / approx 15 gal  
 restarted @ 0858 pumped approx 3-4 gal stopped at 0901  
 restarted @ 0905 pumped approx 8 gal

# WELL DEVELOPMENT LOG

Project Number 212302710 Well TC-MW-10  
 Project Name NORTON RI Development Subcontractor MAJOR  
 Performed/Supervised JDS / ADAM  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria      VOLUME & PARAMETERS  
 Equipment Cleaning Method      ALCOXOL WATER  
 Field Instruments Used      HORIBA & IP  
 Development Water Disposal Method      PENDING  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 5.16 End 5.15 Ref. Point Elev. NORTH Height Above Ground Surface NOT  
 Total Depth: Start 13.28 End 13.40 SIDE OF CASING SURVEYED

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	0950	START	OVER	0.323	BLACK	5.86	12.51°C	EP, 2
"	0958	5 GAL	820	0.500	CLEAR	6.13	12.37°C	" Sulfur odor
"	1005	25 GAL	560	0.573	CLEAR	6.46	12.93°C	"
"	1015	48 GAL	570	0.586	CLEAR	6.60	12.72°C	"

REMARKS:

# WELL DEVELOPMENT LOG

Project Number 212302710 Well MW-11  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI work  
 Equipment Cleaning Method Acetone / H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / water level  
 Development Water Disposal Method Drummed for disposal off-site  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 3.65 End 9.20 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.05 End 13.05

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/29/11	0738	start	over	0.425	Gray	6.62	11.43	odor
4/29/11	0739	5gal	over	0.417	Gray	6.60	11.51	odor
↓	0755	<del>16gal</del> 20gal	over	0.552	Brownish Gray	6.86	10.67	odor
	0810	<del>40gal</del> 20gal	860	0.690	light Brown	6.49	11.97	odor
		NM <del>55gal</del>						

**REMARKS:** Well ~~log~~ stopped recharging at ~ 15 gal stopped pump empty to recharge. Restarted pump @ 0755 filled to 20 gal stopped pump. Restarted pump @ 0810 filled to 24 gal



# WELL DEVELOPMENT LOG

Project Number 212302714 Well MW-12  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work  
 Equipment Cleaning Method Alconex / H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / water level  
 Development Water Disposal Method Drummed for disposal off-site  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.40 End 8.40 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.05 End 13.05

*S/m*

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
<u>4/28/11</u>	<u>1612</u>	<u>Start</u>	<u>over</u>	<u>0.358</u>	<u>Brown</u>	<u>6.28</u>	<u>11.22</u>	
	<u>1614</u>	<u>5 gal</u>	<u>over</u>	<u>0.384</u>	<u>Brownish Gray</u>	<u>6.32</u>	<u>11.05</u>	
	<u>1644</u>	<u>20 gal</u>	<u>over</u>	<u>0.390</u>	<u>Black</u>	<u>6.36</u>	<u>11.29</u>	
	<u>1708</u>	<u>40 gal</u>	<u>over</u>	<u>0.383</u>	<u>Gray</u>	<u>6.46</u>	<u>11.78</u>	
	<u>1732</u>	<u>55 gal</u>	<u>890</u>	<u>0.389</u>	<u>light Gray</u>	<u>6.64</u>	<u>11.42</u>	

**REMARKS:** ~~Pump stopped working / Changed pumps at 1643~~  
 Groundwater recharge  
 Slowly stopped pump repeatedly (15 times) to allow well to recharge

# WELL DEVELOPMENT LOG

Project Number 21230271A Well MW-13  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alconox H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water level  
 Development Water Disposal Method Drained for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water:    Start 5.00    End 5.02    Ref. Point Elev. \_\_\_\_\_    Height Above Ground Surface \_\_\_\_\_  
 Total Depth:      Start 13.00    End 13.00

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/28/11	1532	Start	over	0.136	Black	6.55	11.01	<del>Slight</del> Sheen
	1535	5 gal	over	0.154	Black	6.45	10.92	Sheen
	1541	20 gal	820	0.162	Gray	6.44	10.86	Sheen
	1552	40 gal	930	0.162	Gray	6.13	10.85	Slight Sheen
	1558	55 gal	746	0.162	light gray	6.35	10.84	Slight Sheen

REMARKS: Sheen in Drum

# WELL DEVELOPMENT LOG

Project Number \_\_\_\_\_ Well MW-14  
 Project Name \_\_\_\_\_ Development Subcontractor \_\_\_\_\_  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria \_\_\_\_\_  
 Equipment Cleaning Method \_\_\_\_\_  
 Field Instruments Used \_\_\_\_\_  
 Development Water Disposal Method \_\_\_\_\_  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 4.73 End 3.45 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.13 End 13.13

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
<del>4/29/11</del>	<del>1025</del>	<del>Start</del>	<del>over</del>	<del>0.236</del>	<del>Black</del>	<del>6.55</del>	<del>11.78</del>	
		<del>5gal</del>	<del>over</del>	<del>0.241</del>	<del>Grey</del>	<del>6.44</del>	<del>11.85</del>	
	<del>1028</del>	<del>20gal</del>	<del>over</del>	<del>0.244</del>	<del>Grey</del>	<del>6.44</del>	<del>11.85</del>	
		<del>40gal</del>						
		<del>55gal</del>						
<u>4/29/11</u>	<u>1025</u>	<u>Start</u>	<u>over</u>	<u>0.236</u>	<u>Black</u>	<u>6.55</u>	<u>11.78</u>	<u>odor</u>
	<u>1028</u>	<u>5gal</u>	<u>over</u>	<u>0.241</u>	<u>Grey</u>	<u>6.44</u>	<u>11.85</u>	<u>odor</u>
	<u>1032</u>	<u>20gal</u>	<u>over</u>	<u>0.245</u>	<u>Brownish Grey</u>	<u>6.40</u>	<u>11.79</u>	<u>odor</u>
	<u>1038</u>	<u>40gal</u>	<u>750</u>	<u>0.244</u>	<u>Brown</u>	<u>6.37</u>	<u>11.76</u>	<u>odor</u>
	<u>1047</u>	<u>55gal</u>	<u>200</u>	<u>0.244</u>	<u>light Brown</u>	<u>6.41</u>	<u>11.56</u>	

REMARKS:

# WELL DEVELOPMENT LOG

Project Number \_\_\_\_\_ Well MW-15  
 Project Name \_\_\_\_\_ Development Subcontractor \_\_\_\_\_  
 Performed/Supervised \_\_\_\_\_  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria \_\_\_\_\_  
 Equipment Cleaning Method \_\_\_\_\_  
 Field Instruments Used \_\_\_\_\_  
 Development Water Disposal Method \_\_\_\_\_  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

Depth to Water: Start 5.27 End 4.05 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.20 End 13.20

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
<u>4/29/11</u>	<u>1014</u>	<u>Start</u>	<u>over</u>	<u>0.116</u>	<u>Black</u>	<u>6.85</u>	<u>11.19</u>	
	<u>1016</u>	<u>5gal</u>	<u>over</u>	<u>0.169</u>	<u>Brownish Gray</u>	<u>6.63</u>	<u>11.56</u>	
	<u>1026</u>	<u>20gal</u>	<u>over</u>	<u>0.153</u>	<u>Brown</u>	<u>6.59</u>	<u>11.60</u>	
	<u>1055</u>	<u>40gal</u>	<u>920</u>	<u>0.148</u>	<u>Brown</u>	<u>6.53</u>	<u>11.33</u>	
	<u>1050</u>	<u>55gal</u>	<u>770</u>	<u>0.144</u>	<u>Brown</u>	<u>6.61</u>	<u>11.18</u>	

**REMARKS:**

# WELL DEVELOPMENT LOG

Project Number 212302667 Well TC-MW-16  
 Project Name TC SYSTEMS - EVERETT Development Subcontractor MAJOR DRILLING  
 Performed/Supervised ROBERT McALISTER  
 Development Method      Airlift      Sub. Pump      Surge Block      Bailer      Other \_\_\_\_\_  
 Development Criteria DEVELOP WELL UNTIL WATER IS < 5 NTU  
 Equipment Cleaning Method PRESSURE WASHER - DRILLER'S DECON TRAILER  
 Field Instruments Used SEE COMMENTS  
 Development Water Disposal Method DRUMS STORED ON-SITE  
 Comments APPROPRIATE SAMPLING EQUIPMENT NOT AVAILABLE AT TIME OF INITIAL DEVELOPMENT, PARAMETERS WILL BE OBTAINED DURING SUBSEQUENT SAMPLING EVENTS

## DEVELOPMENT DATA

Depth to Water: Start \_\_\_\_\_ End \_\_\_\_\_ Ref. Point Elev. NORTH Height Above Ground Surface NOT SURVEYED  
 Total Depth: Start \_\_\_\_\_ End \_\_\_\_\_ SIDE OF WELL CASING

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/27/11	1345	10	VERY HIGH	NM	DARK GREY	NM	NM	SULFUR ODOR
	1349	20	HIGH		GREY			
	1405	30	MOD. TO LOW		GREY			
	1411	40	TRACE		CLEAR			
	1417	50	TRACE		CLEAR			

**REMARKS:** SULFUR ODOR, SLIGHT SHEEN THROUGHOUT DEVELOPMENT  
 PURGED 50 GALS OVER ~30 MINS UNTIL VISUALLY CLEAR

# WELL DEVELOPMENT LOG

Project Number 212302710 Well ~~AW-15~~ MW-17  
 Project Name Norton RI Development Subcontractor Major  
 Performed/Supervised \_\_\_\_\_  
 Development Method Airlift Sub. Pump Surge Block Bailer Other \_\_\_\_\_  
 Development Criteria Volume of Parameters, RFR RI Work Plan  
 Equipment Cleaning Method Alcanox & H<sub>2</sub>O  
 Field Instruments Used Horiba 022 / Water level Ind.  
 Development Water Disposal Method Drummed for off-site disposal  
 Comments \_\_\_\_\_

## DEVELOPMENT DATA

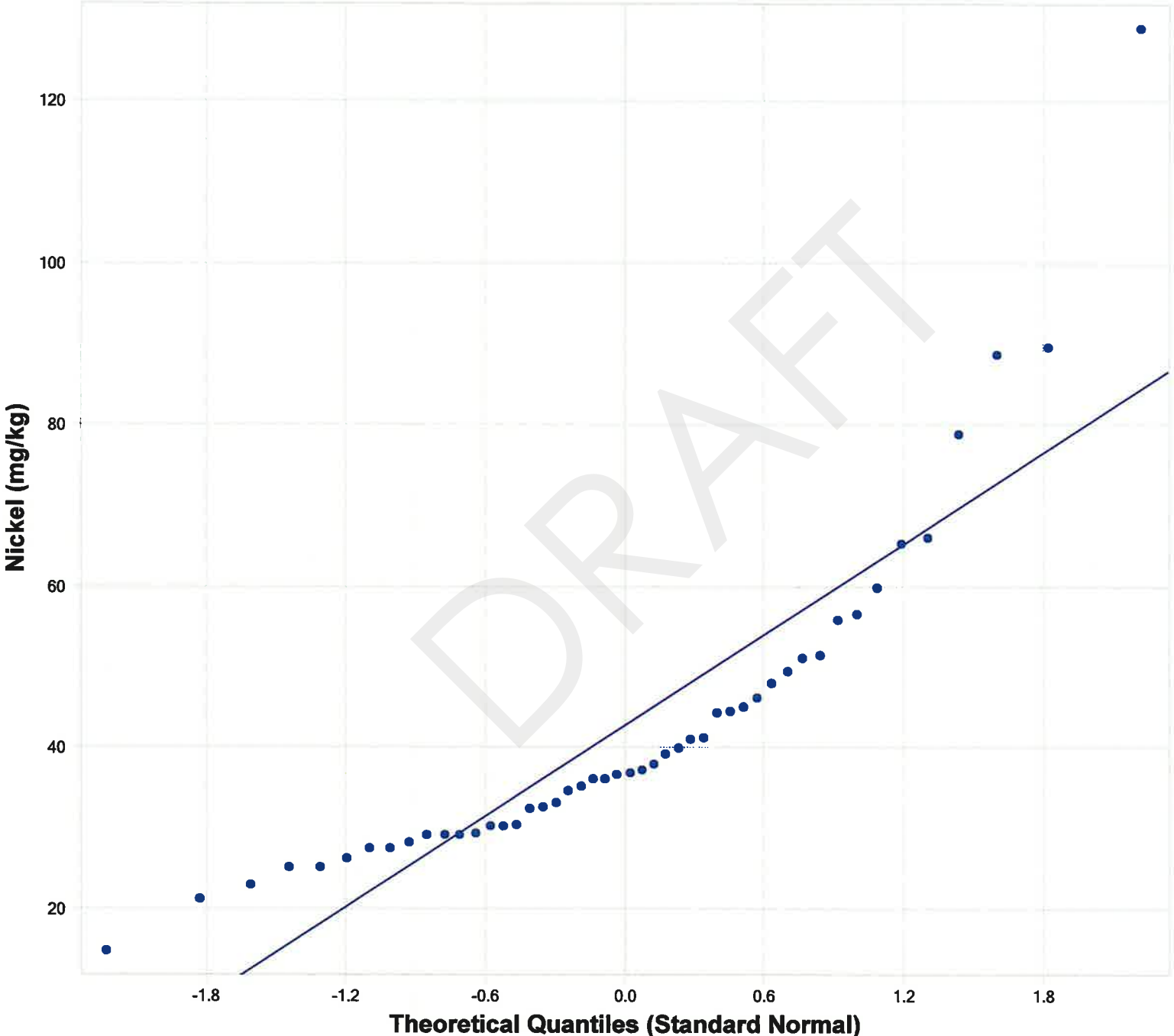
Depth to Water: Start 5.18 End 5.25 Ref. Point Elev. \_\_\_\_\_ Height Above Ground Surface \_\_\_\_\_  
 Total Depth: Start 13.15 End 13.15

Date	Time	Cumulative Discharge (gallons)	Turbidity	Conductivity	Color	pH	Temperature	Other
4/24/11	1004	start	over	0.204	Black	6.98	11.05	odor
	1005	5gal	over	0.193	Black	6.88	11.60	odor
	1019	20gal	890	0.193	light gray	6.59	11.41	odor
	1040	40gal	710	0.188	light Brown	6.57	11.31	odor
	1101	55gal	730	0.185	light Brown	6.66	11.09 <del>11.58</del>	odor

REMARKS:

**Appendix D STATISTICAL EVALUATION OF DATA USEPA  
PROUCL (VERSION 5.0)**

### Q-Q Plot for Nickel



C0  
N = 48  
Mean = 42.55  
Sd = 20.67  
Slope = 18.8  
Intercept = 42.55  
Correlation, R = 0.892

■ Best Fit Line



	A	B	C	D	E	F	G	H	I	J	K	L	
1	<b>UCL Statistics for Uncensored Full Data Sets</b>												
2													
3	<b>User Selected Options</b>												
4	Date/Time of Computation	2/24/2015 10:58:04 AM											
5	From File	WorkSheet.xls											
6	Full Precision	OFF											
7	Confidence Coefficient	95%											
8	Number of Bootstrap Operations	2000											
9													
10													
11	<b>Nickel-Site Wide</b>												
12													
13	<b>General Statistics</b>												
14	Total Number of Observations	48					Number of Distinct Observations	43					
15							Number of Missing Observations	1					
16		Minimum	14.6					Mean	42.55				
17		Maximum	129					Median	36.7				
18		SD	20.67					Std. Error of Mean	2.983				
19		Coefficient of Variation	0.486					Skewness	2.127				
20													
21	<b>Normal GOF Test</b>												
22	Shapiro Wilk Test Statistic	0.815					Shapiro Wilk GOF Test						
23	5% Shapiro Wilk Critical Value	0.947					Data Not Normal at 5% Significance Level						
24	Lilliefors Test Statistic	0.172					Lilliefors GOF Test						
25	5% Lilliefors Critical Value	0.128					Data Not Normal at 5% Significance Level						
26	Data Not Normal at 5% Significance Level												
27													
28	<b>Assuming Normal Distribution</b>												
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)						
30		95% Student's-t UCL	47.56					95% Adjusted-CLT UCL (Chen-1995)	48.44				
31								95% Modified-t UCL (Johnson-1978)	47.71				
32													
33	<b>Gamma GOF Test</b>												
34	A-D Test Statistic	1.082					Anderson-Darling Gamma GOF Test						
35	5% A-D Critical Value	0.753					Data Not Gamma Distributed at 5% Significance Level						
36	K-S Test Statistic	0.121					Kolmogrov-Smirnoff Gamma GOF Test						
37	5% K-S Critical Value	0.128					Detected data appear Gamma Distributed at 5% Significance Level						
38	Detected data follow Appr. Gamma Distribution at 5% Significance Level												
39													

	A	B	C	D	E	F	G	H	I	J	K	L
40						Gamma Statistics						
41					k hat (MLE)	5.794				k star (bias corrected MLE)		5.445
42					Theta hat (MLE)	7.344				Theta star (bias corrected MLE)		7.814
43					nu hat (MLE)	556.2				nu star (bias corrected)		522.8
44					MLE Mean (bias corrected)	42.55				MLE Sd (bias corrected)		18.23
45										Approximate Chi Square Value (0.05)		470.7
46					Adjusted Level of Significance	0.045				Adjusted Chi Square Value		469.2
47												
48					Assuming Gamma Distribution							
49					95% Approximate Gamma UCL (use when n>=50)	47.25				95% Adjusted Gamma UCL (use when n<50)		47.41
50												
51					Lognormal GOF Test							
52					Shapiro Wilk Test Statistic	0.97				Shapiro Wilk Lognormal GOF Test		
53					5% Shapiro Wilk Critical Value	0.947				Data appear Lognormal at 5% Significance Level		
54					Lilliefors Test Statistic	0.0907				Lilliefors Lognormal GOF Test		
55					5% Lilliefors Critical Value	0.128				Data appear Lognormal at 5% Significance Level		
56					Data appear Lognormal at 5% Significance Level							
57												
58					Lognormal Statistics							
59					Minimum of Logged Data	2.681				Mean of logged Data		3.662
60					Maximum of Logged Data	4.86				SD of logged Data		0.408
61												
62					Assuming Lognormal Distribution							
63					95% H-UCL	47.18				90% Chebyshev (MVUE) UCL		49.95
64					95% Chebyshev (MVUE) UCL	53.45				97.5% Chebyshev (MVUE) UCL		58.3
65					99% Chebyshev (MVUE) UCL	67.83						
66												
67					Nonparametric Distribution Free UCL Statistics							
68					Data appear to follow a Discernible Distribution at 5% Significance Level							
69												
70					Nonparametric Distribution Free UCLs							
71					95% CLT UCL	47.46				95% Jackknife UCL		47.56
72					95% Standard Bootstrap UCL	47.34				95% Bootstrap-t UCL		49.23
73					95% Hall's Bootstrap UCL	49.99				95% Percentile Bootstrap UCL		47.46
74					95% BCA Bootstrap UCL	48.44						
75					90% Chebyshev(Mean, Sd) UCL	51.5				95% Chebyshev(Mean, Sd) UCL		55.55
76					97.5% Chebyshev(Mean, Sd) UCL	61.18				99% Chebyshev(Mean, Sd) UCL		72.23
77												
78					Suggested UCL to Use							

	A	B	C	D	E	F	G	H	I	J	K	L
79	95% Adjusted Gamma UCL 47.41											
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

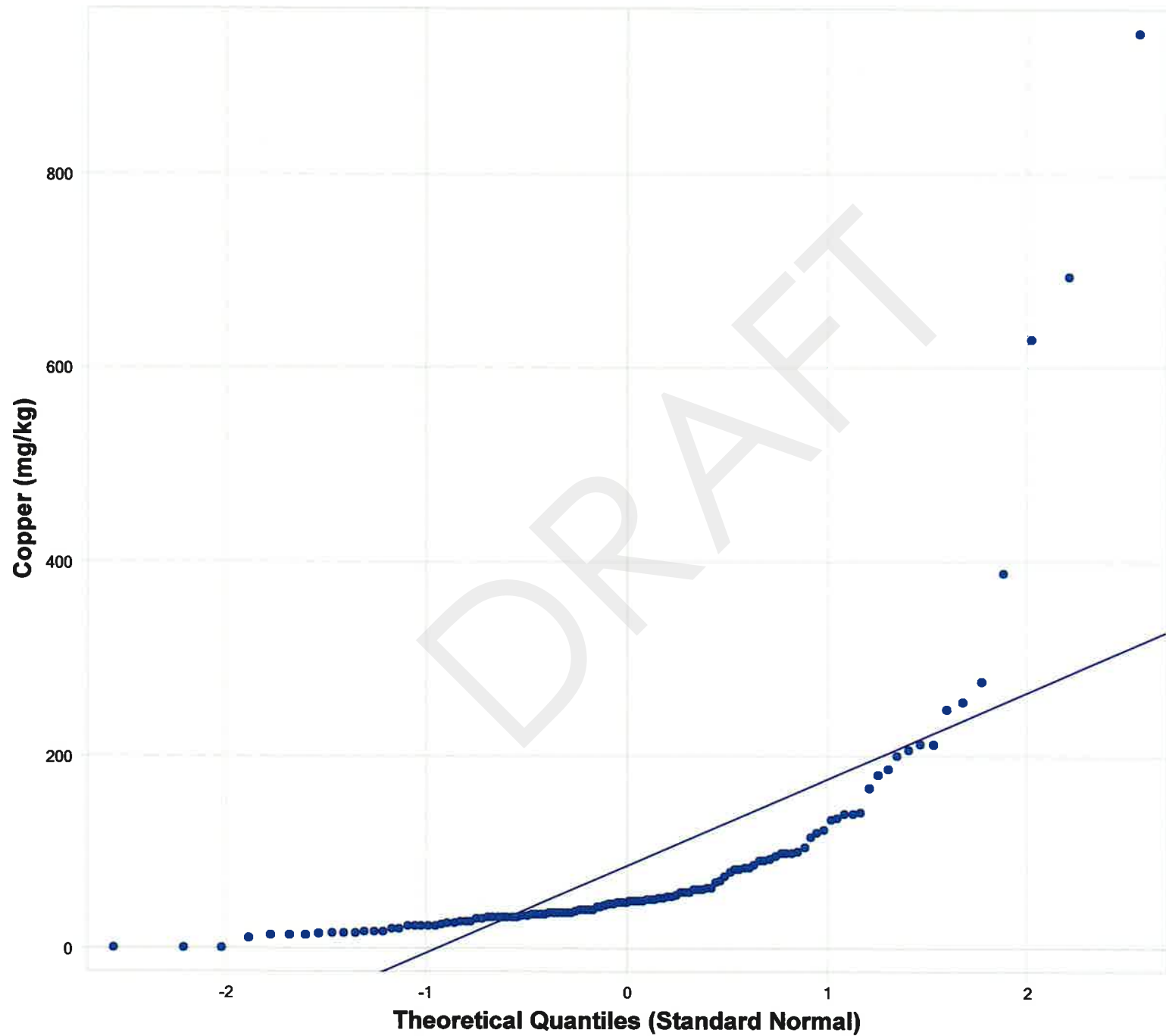
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	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>Outlier Tests for Selected Uncensored Variables</b>											
2	<b>User Selected Options</b>											
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4		From File	WorkSheet_d.xls									
5		Full Precision	OFF									
6												
7												
8	<b>Rosner's Outlier Test for Arsenic</b>											
9												
10												
11		<b>Mean</b>	<b>15.64</b>									
12		<b>Standard Deviation</b>	<b>21.28</b>									
13		<b>Number of data</b>	<b>109</b>									
14	<b>Number of suspected outliers</b>	<b>1</b>										
15												
16				Potential	Obs.	Test	Critical	Critical				
17	#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
18	1	15.64	21.18	155	95	6.579	3.405	3.775				
19												
20	For 5% Significance Level, there is 1 Potential Outlier											
21	Potential outliers is: 155											
22												
23	For 1% Significance Level, there is 1 Potential Outlier											
24	Potential outliers is: 155											
25												
26												
27	<b>Rosner's Outlier Test for Copper</b>											
28												
29												
30		<b>Mean</b>	<b>84.96</b>									
31		<b>Standard Deviation</b>	<b>126.3</b>									
32		<b>Number of data</b>	<b>121</b>									
33	<b>Number of suspected outliers</b>	<b>1</b>										
34												
35				Potential	Obs.	Test	Critical	Critical				
36	#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
37	1	84.96	125.8	945	24	6.837	3.439	3.809				
38												
39	For 5% Significance Level, there is 1 Potential Outlier											
40	Potential outliers is: 945											
41												

	A	B	C	D	E	F	G	H	I	J	K	L
42	For 1% Significance Level, there is 1 Potential Outlier											
43	Potential outliers is: 945											
44												

DRAFT

## Q-Q Plot for Copper-Site Wide



C0

N = 121

Mean = 84.96

Sd = 126.3

Slope = 89.92

Intercept = 84.96

Correlation, R = 0.705

■ Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
79			95% Chebyshev (Mean, Sd) UCL			24.52						
80												
81			Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.									
82			These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)									
83			and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.									
84			For additional insight the user may want to consult a statistician.									
85												
86												
87			Copper-Site Wide Outside Bldgs B & C									
88												
89			<b>General Statistics</b>									
90			Total Number of Observations			121				Number of Distinct Observations		114
91										Number of Missing Observations		2
92				Minimum		0.072				Mean		84.96
93				Maximum		945				Median		47.6
94				SD		126.3				Std. Error of Mean		11.48
95				Coefficient of Variation		1.487				Skewness		4.478
96												
97			<b>Normal GOF Test</b>									
98			Shapiro Wilk Test Statistic			0.53				Shapiro Wilk GOF Test		
99			5% Shapiro Wilk P Value			0				Data Not Normal at 5% Significance Level		
100			Lilliefors Test Statistic			0.263				Lilliefors GOF Test		
101			5% Lilliefors Critical Value			0.0805				Data Not Normal at 5% Significance Level		
102			Data Not Normal at 5% Significance Level									
103												
104			<b>Assuming Normal Distribution</b>									
105			95% Normal UCL							95% UCLs (Adjusted for Skewness)		
106			95% Student's-t UCL			104				95% Adjusted-CLT UCL (Chen-1995)		108.8
107										95% Modified-t UCL (Johnson-1978)		104.8
108												
109			<b>Gamma GOF Test</b>									
110			A-D Test Statistic			4.244				Anderson-Darling Gamma GOF Test		
111			5% A-D Critical Value			0.783				Data Not Gamma Distributed at 5% Significance Level		
112			K-S Test Statistic			0.153				Kolmogorov-Smirnov Gamma GOF Test		
113			5% K-S Critical Value			0.0865				Data Not Gamma Distributed at 5% Significance Level		
114			Data Not Gamma Distributed at 5% Significance Level									
115												
116			<b>Gamma Statistics</b>									
117				k hat (MLE)		1.006				k star (bias corrected MLE)		0.986

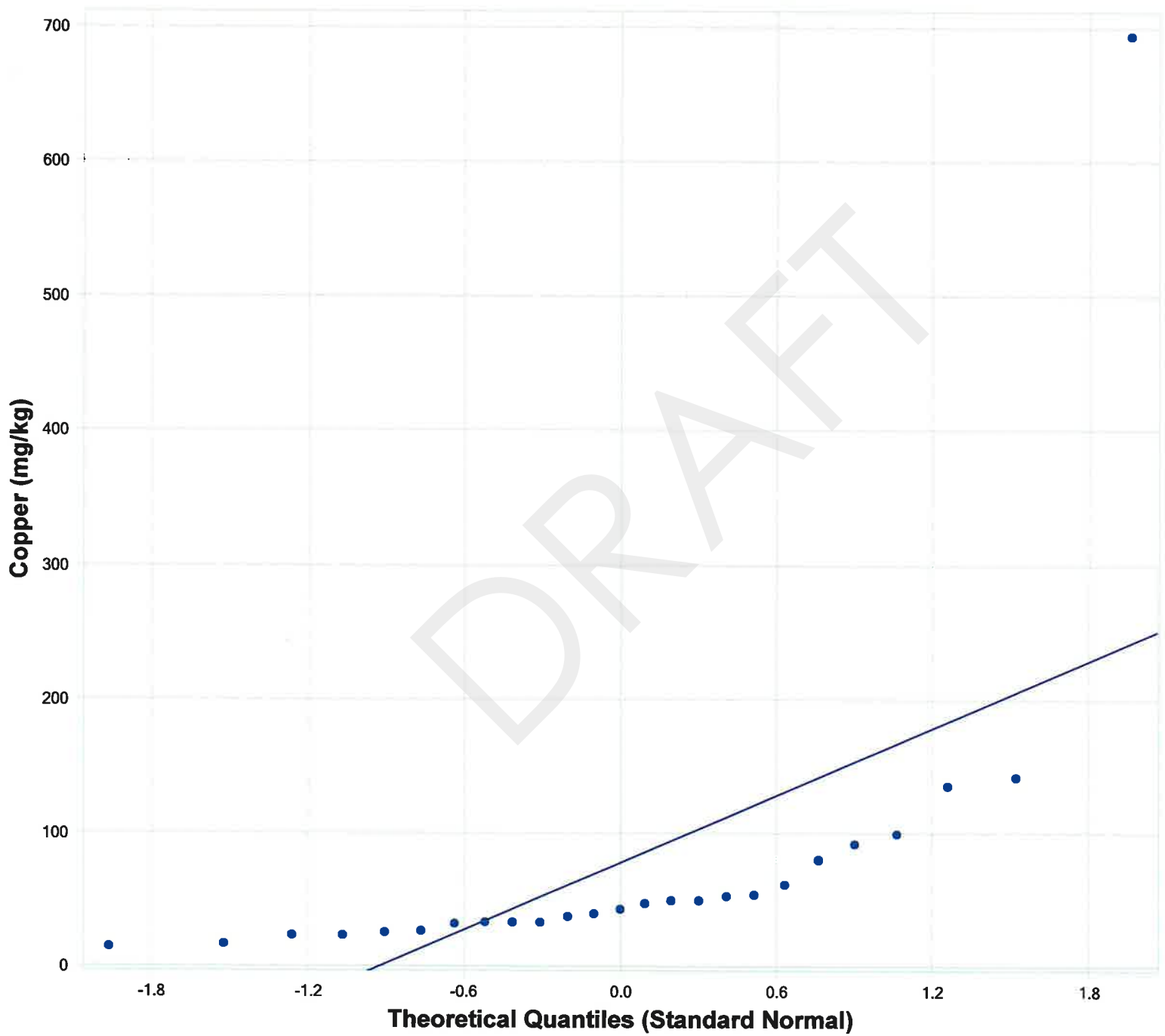




	A	B	C	D	E	F	G	H	I	J	K	L
157	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
158	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
159	and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.											
160	For additional insight the user may want to consult a statistician.											
161												

DRAFT

### Q-Q Plot for Copper-Bldg B.



**C0**  
N = 25  
Mean = 76.79  
Sd = 132.9  
Slope = 84.13  
Intercept = 76.79  
Correlation, R = 0.613

■ Best Fit Line

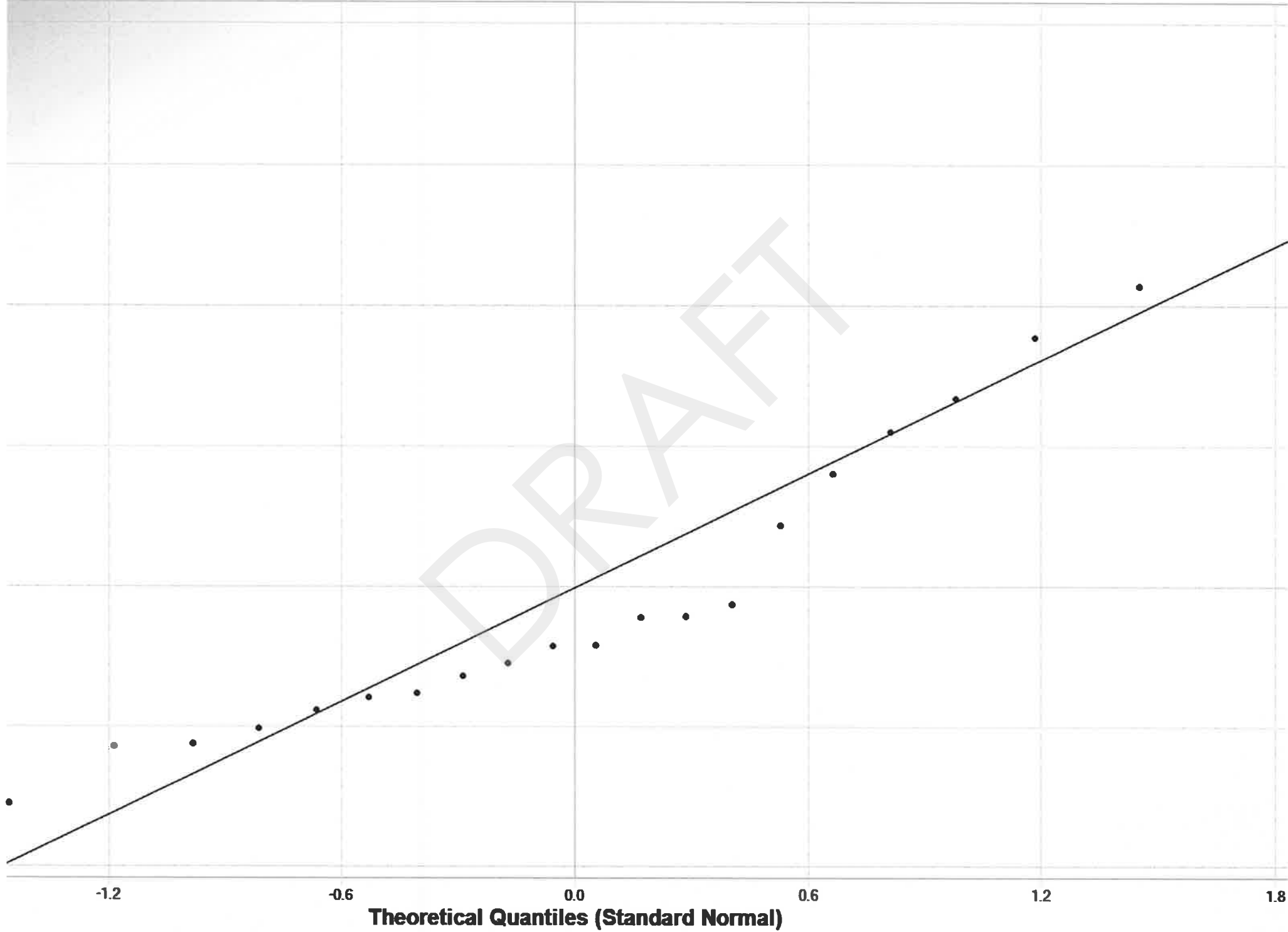
	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation	4/3/2015 2:26:59 PM										
5	From File	WorkSheet_a.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	Copper Building B											
12												
13	General Statistics											
14	Total Number of Observations	25					Number of Distinct Observations	25				
15							Number of Missing Observations	0				
16	Minimum	13.6					Mean	76.79				
17	Maximum	694					Median	42.7				
18	SD	132.9					Std. Error of Mean	26.59				
19	Coefficient of Variation	1.731					Skewness	4.508				
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic	0.407					Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value	0.918					Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic	0.317					Lilliefors GOF Test					
25	5% Lilliefors Critical Value	0.177					Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL	122.3					95% Adjusted-CLT UCL (Chen-1995)	146.1				
31							95% Modified-t UCL (Johnson-1978)	126.3				
32												
33	Gamma GOF Test											
34	A-D Test Statistic	1.992					Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value	0.769					Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic	0.241					Kolmogrov-Smirnoff Gamma GOF Test					
37	5% K-S Critical Value	0.179					Data Not Gamma Distributed at 5% Significance Level					
38	Data Not Gamma Distributed at 5% Significance Level											
39												

	A	B	C	D	E	F	G	H	I	J	K	L
40	<b>Gamma Statistics</b>											
41					k hat (MLE)	1.174				k star (bias corrected MLE)		1.06
42					Theta hat (MLE)	65.38				Theta star (bias corrected MLE)		72.43
43					nu hat (MLE)	58.72				nu star (bias corrected)		53.01
44					MLE Mean (bias corrected)	76.79				MLE Sd (bias corrected)		74.58
45										Approximate Chi Square Value (0.05)		37.28
46					Adjusted Level of Significance	0.0395				Adjusted Chi Square Value		36.38
47												
48	<b>Assuming Gamma Distribution</b>											
49					95% Approximate Gamma UCL (use when n>=50))	109.2				95% Adjusted Gamma UCL (use when n<50)		111.9
50												
51	<b>Lognormal GOF Test</b>											
52					Shapiro Wilk Test Statistic	0.901				Shapiro Wilk Lognormal GOF Test		
53					5% Shapiro Wilk Critical Value	0.918				Data Not Lognormal at 5% Significance Level		
54					Lilliefors Test Statistic	0.162				Lilliefors Lognormal GOF Test		
55					5% Lilliefors Critical Value	0.177				Data appear Lognormal at 5% Significance Level		
56					Data appear Approximate Lognormal at 5% Significance Level							
57												
58	<b>Lognormal Statistics</b>											
59					Minimum of Logged Data	2.61				Mean of logged Data		3.858
60					Maximum of Logged Data	6.542				SD of logged Data		0.821
61												
62	<b>Assuming Lognormal Distribution</b>											
63					95% H-UCL	97.2				90% Chebyshev (MVUE) UCL		100.5
64					95% Chebyshev (MVUE) UCL	116.5				97.5% Chebyshev (MVUE) UCL		138.7
65					99% Chebyshev (MVUE) UCL	182.3						
66												
67	<b>Nonparametric Distribution Free UCL Statistics</b>											
68					Data appear to follow a Discernible Distribution at 5% Significance Level							
69												
70	<b>Nonparametric Distribution Free UCLs</b>											
71					95% CLT UCL	120.5				95% Jackknife UCL		122.3
72					95% Standard Bootstrap UCL	118.6				95% Bootstrap-t UCL		240.3
73					95% Hall's Bootstrap UCL	272.4				95% Percentile Bootstrap UCL		127.4
74					95% BCA Bootstrap UCL	162						
75					90% Chebyshev(Mean, Sd) UCL	156.6				95% Chebyshev(Mean, Sd) UCL		192.7
76					97.5% Chebyshev(Mean, Sd) UCL	242.8				99% Chebyshev(Mean, Sd) UCL		341.4
77												
78	<b>Suggested UCL to Use</b>											

	A	B	C	D	E	F	G	H	I	J	K	L
79	95% Chebyshev (Mean, Sd) UCL 192.7											
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

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**Q-Q Plot for Arsenic Bldg. B**



	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>UCL Statistics for Uncensored Full Data Sets</b>											
2												
3	<b>User Selected Options</b>											
4	Date/Time of Computation	4/3/2015 2:36:30 PM										
5	From File	WorkSheet_b.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	<b>Arsenic-Building B.</b>											
12												
13	<b>General Statistics</b>											
14	Total Number of Observations	22				Number of Distinct Observations	22					
15						Number of Missing Observations	0					
16	Minimum	3.19				Mean	8.964					
17	Maximum	21				Median	7.725					
18	SD	4.163				Std. Error of Mean	0.888					
19	Coefficient of Variation	0.464				Skewness	1.328					
20												
21	<b>Normal GOF Test</b>											
22	Shapiro Wilk Test Statistic	0.894				Shapiro Wilk GOF Test						
23	5% Shapiro Wilk Critical Value	0.911				Data Not Normal at 5% Significance Level						
24	Lilliefors Test Statistic	0.217				Lilliefors GOF Test						
25	5% Lilliefors Critical Value	0.189				Data Not Normal at 5% Significance Level						
26	Data Not Normal at 5% Significance Level											
27												
28	<b>Assuming Normal Distribution</b>											
29	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
30	95% Student's-t UCL	10.49				95% Adjusted-CLT UCL (Chen-1995)	10.69					
31						95% Modified-t UCL (Johnson-1978)	10.53					
32												
33	<b>Gamma GOF Test</b>											
34	A-D Test Statistic	0.378				Anderson-Darling Gamma GOF Test						
35	5% A-D Critical Value	0.746				Detected data appear Gamma Distributed at 5% Significance Level						
36	K-S Test Statistic	0.164				Kolmogrov-Smirnoff Gamma GOF Test						
37	5% K-S Critical Value	0.186				Detected data appear Gamma Distributed at 5% Significance Level						
38	Detected data appear Gamma Distributed at 5% Significance Level											
39												

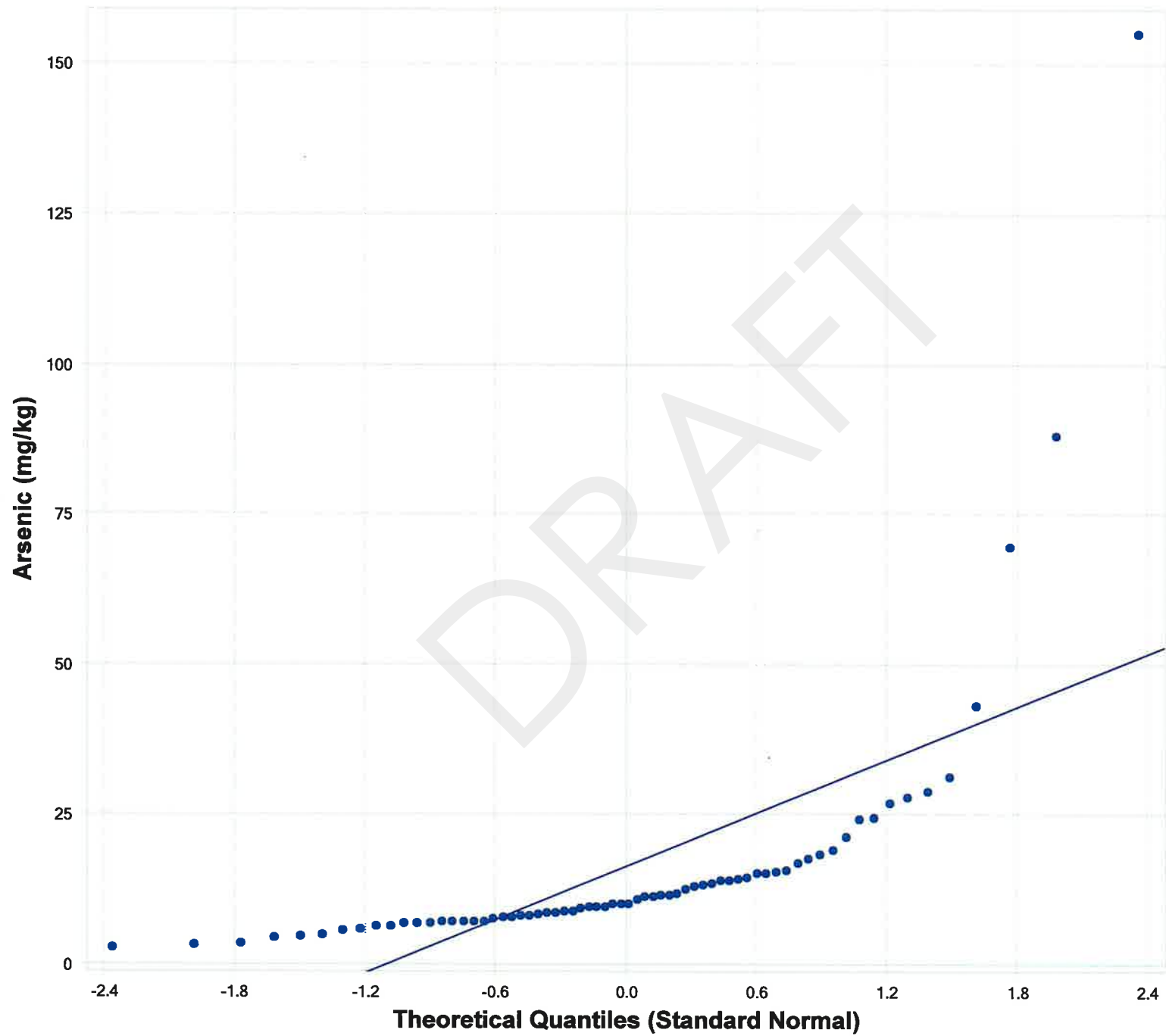
	A	B	C	D	E	F	G	H	I	J	K	L	
40	<b>Gamma Statistics</b>												
41					k hat (MLE)	5.554				k star (bias corrected MLE)		4.827	
42					Theta hat (MLE)	1.614				Theta star (bias corrected MLE)		1.857	
43					nu hat (MLE)	244.4				nu star (bias corrected)		212.4	
44					MLE Mean (bias corrected)	8.964				MLE Sd (bias corrected)		4.08	
45										Approximate Chi Square Value (0.05)		179.7	
46					Adjusted Level of Significance	0.0386				Adjusted Chi Square Value		177.4	
47													
48	<b>Assuming Gamma Distribution</b>												
49					95% Approximate Gamma UCL (use when n>=50)	10.6				95% Adjusted Gamma UCL (use when n<50)		10.73	
50													
51	<b>Lognormal GOF Test</b>												
52					Shapiro Wilk Test Statistic	0.983				Shapiro Wilk Lognormal GOF Test			
53					5% Shapiro Wilk Critical Value	0.911				Data appear Lognormal at 5% Significance Level			
54					Lilliefors Test Statistic	0.135				Lilliefors Lognormal GOF Test			
55					5% Lilliefors Critical Value	0.189				Data appear Lognormal at 5% Significance Level			
56					Data appear Lognormal at 5% Significance Level								
57													
58	<b>Lognormal Statistics</b>												
59					Minimum of Logged Data	1.16				Mean of logged Data		2.1	
60					Maximum of Logged Data	3.045				SD of logged Data		0.437	
61													
62	<b>Assuming Lognormal Distribution</b>												
63					95% H-UCL	10.82				90% Chebyshev (MVUE) UCL		11.52	
64					95% Chebyshev (MVUE) UCL	12.69				97.5% Chebyshev (MVUE) UCL		14.31	
65					99% Chebyshev (MVUE) UCL	17.49							
66													
67	<b>Nonparametric Distribution Free UCL Statistics</b>												
68					Data appear to follow a Discernible Distribution at 5% Significance Level								
69													
70	<b>Nonparametric Distribution Free UCLs</b>												
71					95% CLT UCL	10.42				95% Jackknife UCL		10.49	
72					95% Standard Bootstrap UCL	10.39				95% Bootstrap-t UCL		10.92	
73					95% Hall's Bootstrap UCL	10.98				95% Percentile Bootstrap UCL		10.45	
74					95% BCA Bootstrap UCL	10.76							
75					90% Chebyshev(Mean, Sd) UCL	11.63				95% Chebyshev(Mean, Sd) UCL		12.83	
76					97.5% Chebyshev(Mean, Sd) UCL	14.51				99% Chebyshev(Mean, Sd) UCL		17.8	
77													
78	<b>Suggested UCL to Use</b>												



	A	B	C	D	E	F	G	H	I	J	K	L
79	95% Adjusted Gamma UCL		10.73									
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

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### Q-Q Plot for Arsenic-Site Wide



C0

N = 68

Mean = 16.1

Sd = 21.86

Slope = 14.92

Intercept = 16.1

Correlation, R = 0.672

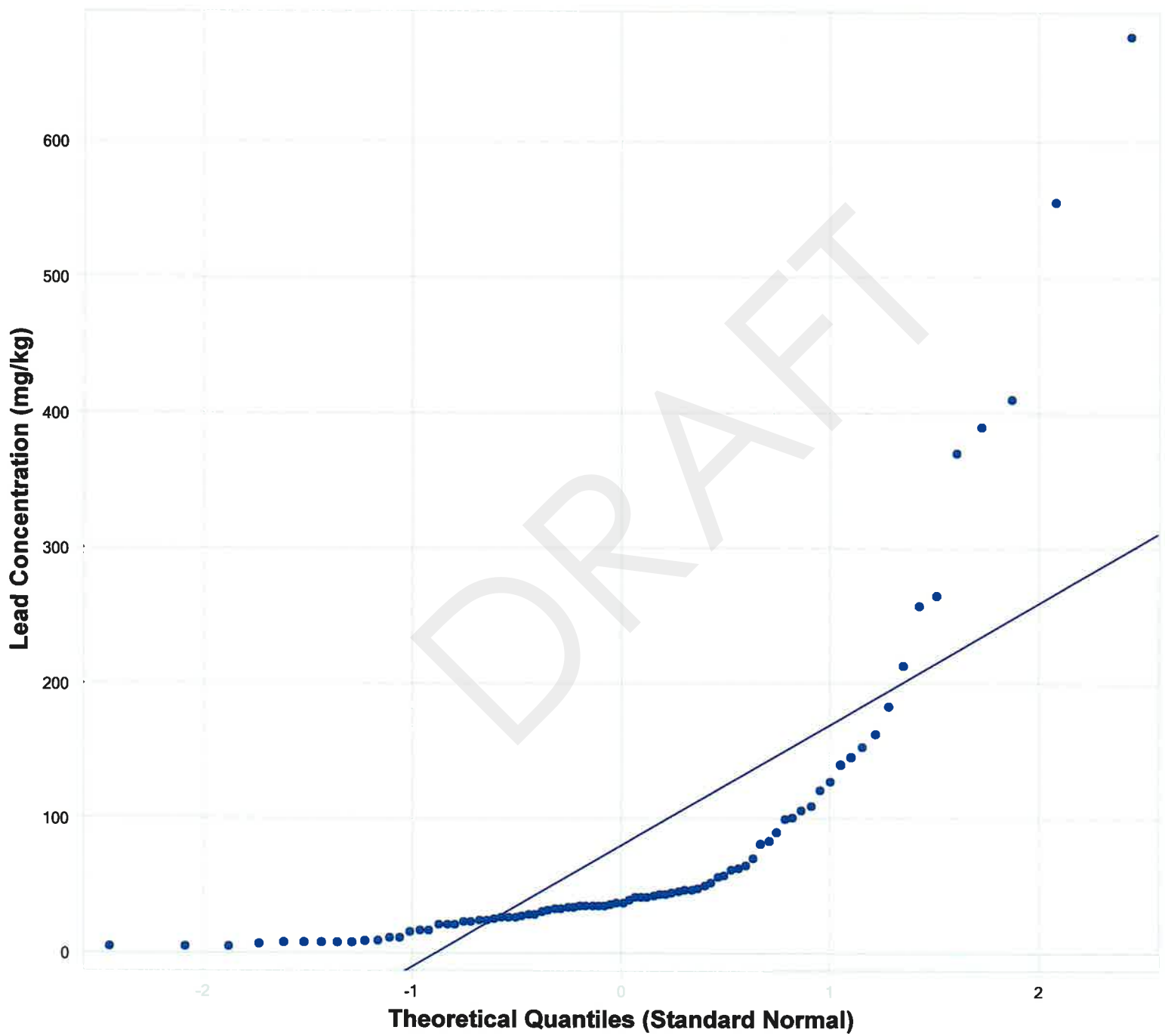
■ Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>UCL Statistics for Uncensored Full Data Sets</b>											
2												
3	User Selected Options											
4	Date/Time of Computation	2/12/2015 3:42:35 PM										
5	From File	WorkSheet_d.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	<b>Arsenic-Site Wide Outside Bldgs B &amp; C</b>											
12												
13	<b>General Statistics</b>											
14	Total Number of Observations	109	Number of Distinct Observations		103							
15			Number of Missing Observations		2							
16	Minimum	0.1	Mean		15.64							
17	Maximum	155	Median		9.29							
18	SD	21.28	Std. Error of Mean		2.038							
19	Coefficient of Variation	1.361	Skewness		4.074							
20												
21	<b>Normal GOF Test</b>											
22	Shapiro Wilk Test Statistic	0.54	<b>Shapiro Wilk GOF Test</b>									
23	5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level									
24	Lilliefors Test Statistic	0.303	<b>Lilliefors GOF Test</b>									
25	5% Lilliefors Critical Value	0.0849	Data Not Normal at 5% Significance Level									
26	<b>Data Not Normal at 5% Significance Level</b>											
27												
28	<b>Assuming Normal Distribution</b>											
29	<b>95% Normal UCL</b>				<b>95% UCLs (Adjusted for Skewness)</b>							
30	95% Student's-t UCL	19.02	95% Adjusted-CLT UCL (Chen-1995)		19.84							
31			95% Modified-t UCL (Johnson-1978)		19.15							
32												
33	<b>Gamma GOF Test</b>											
34	A-D Test Statistic	5.637	<b>Anderson-Darling Gamma GOF Test</b>									
35	5% A-D Critical Value	0.777	Data Not Gamma Distributed at 5% Significance Level									
36	K-S Test Statistic	0.185	<b>Kolmogrov-Smirnoff Gamma GOF Test</b>									
37	5% K-S Critical Value	0.0893	Data Not Gamma Distributed at 5% Significance Level									
38	<b>Data Not Gamma Distributed at 5% Significance Level</b>											
39												
40	<b>Gamma Statistics</b>											
41	k hat (MLE)	1.235	k star (bias corrected MLE)		1.207							
42	Theta hat (MLE)	12.66	Theta star (bias corrected MLE)		12.96							
43	nu hat (MLE)	269.1	nu star (bias corrected)		263.1							
44	MLE Mean (bias corrected)	15.64	MLE Sd (bias corrected)		14.23							
45			Approximate Chi Square Value (0.05)		226.5							
46	Adjusted Level of Significance	0.0478	Adjusted Chi Square Value		226.1							
47												
48	<b>Assuming Gamma Distribution</b>											
49	95% Approximate Gamma UCL (use when n>=50))	18.16	95% Adjusted Gamma UCL (use when n<50)		18.2							
50												
51	<b>Lognormal GOF Test</b>											
52	Shapiro Wilk Test Statistic	0.885	<b>Shapiro Wilk Lognormal GOF Test</b>									
53	5% Shapiro Wilk P Value	7.272E-12	Data Not Lognormal at 5% Significance Level									

	A	B	C	D	E	F	G	H	I	J	K	L
54	Lilliefors Test Statistic				0.142		Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value				0.0849		Data Not Lognormal at 5% Significance Level					
56	Data Not Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data				-2.303		Mean of logged Data				2.293	
60	Maximum of Logged Data				5.043		SD of logged Data				0.982	
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL				19.73		90% Chebyshev (MVUE) UCL				21.3	
64	95% Chebyshev (MVUE) UCL				23.73		97.5% Chebyshev (MVUE) UCL				27.11	
65	99% Chebyshev (MVUE) UCL				33.74							
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data do not follow a Discernible Distribution (0.05)											
69												
70	Nonparametric Distribution Free UCLs											
71	95% CLT UCL				18.99		95% Jackknife UCL				19.02	
72	95% Standard Bootstrap UCL				18.91		95% Bootstrap-t UCL				20.67	
73	95% Hall's Bootstrap UCL				20.24		95% Percentile Bootstrap UCL				19.18	
74	95% BCA Bootstrap UCL				19.65							
75	90% Chebyshev(Mean, Sd) UCL				21.75		95% Chebyshev(Mean, Sd) UCL				24.52	
76	97.5% Chebyshev(Mean, Sd) UCL				28.37		99% Chebyshev(Mean, Sd) UCL				35.92	
77												
78	Suggested UCL to Use											
79	95% Chebyshev (Mean, Sd) UCL				24.52							
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												
86												
87	Copper-Site Wide Outside Bldgs B & C											
88												
89	General Statistics											
90	Total Number of Observations				121		Number of Distinct Observations				114	
91							Number of Missing Observations				2	
92	Minimum				0.072		Mean				84.96	
93	Maximum				945		Median				47.6	
94	SD				126.3		Std. Error of Mean				11.48	
95	Coefficient of Variation				1.487		Skewness				4.478	
96												
97	Normal GOF Test											
98	Shapiro Wilk Test Statistic				0.53		Shapiro Wilk GOF Test					
99	5% Shapiro Wilk P Value				0		Data Not Normal at 5% Significance Level					
100	Lilliefors Test Statistic				0.263		Lilliefors GOF Test					
101	5% Lilliefors Critical Value				0.0805		Data Not Normal at 5% Significance Level					
102	Data Not Normal at 5% Significance Level											
103												
104	Assuming Normal Distribution											
105	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
106	95% Student's-t UCL				104		95% Adjusted-CLT UCL (Chen-1995)				108.8	

	A	B	C	D	E	F	G	H	I	J	K	L
107								95% Modified-t UCL (Johnson-1978)				104.8
108												
109								<b>Gamma GOF Test</b>				
110						A-D Test Statistic	4.244			<b>Anderson-Darling Gamma GOF Test</b>		
111						5% A-D Critical Value	0.783			Data Not Gamma Distributed at 5% Significance Level		
112						K-S Test Statistic	0.153			<b>Kolmogrov-Smirnoff Gamma GOF Test</b>		
113						5% K-S Critical Value	0.0865			Data Not Gamma Distributed at 5% Significance Level		
114								<b>Data Not Gamma Distributed at 5% Significance Level</b>				
115												
116								<b>Gamma Statistics</b>				
117						k hat (MLE)	1.006			k star (bias corrected MLE)		0.986
118						Theta hat (MLE)	84.48			Theta star (bias corrected MLE)		86.14
119						nu hat (MLE)	243.4			nu star (bias corrected)		238.7
120						MLE Mean (bias corrected)	84.96			MLE Sd (bias corrected)		85.55
121										Approximate Chi Square Value (0.05)		203.9
122						Adjusted Level of Significance	0.048			Adjusted Chi Square Value		203.5
123												
124								<b>Assuming Gamma Distribution</b>				
125						95% Approximate Gamma UCL (use when n>=50))	99.44			95% Adjusted Gamma UCL (use when n<50)		99.63
126												
127								<b>Lognormal GOF Test</b>				
128						Shapiro Wilk Test Statistic	0.835			<b>Shapiro Wilk Lognormal GOF Test</b>		
129						5% Shapiro Wilk P Value	0			Data Not Lognormal at 5% Significance Level		
130						Lilliefors Test Statistic	0.137			<b>Lilliefors Lognormal GOF Test</b>		
131						5% Lilliefors Critical Value	0.0805			Data Not Lognormal at 5% Significance Level		
132								<b>Data Not Lognormal at 5% Significance Level</b>				
133												
134								<b>Lognormal Statistics</b>				
135						Minimum of Logged Data	-2.631			Mean of logged Data		3.869
136						Maximum of Logged Data	6.851			SD of logged Data		1.229
137												
138								<b>Assuming Lognormal Distribution</b>				
139						95% H-UCL	133.4			90% Chebyshev (MVUE) UCL		144.4
140						95% Chebyshev (MVUE) UCL	164.1			97.5% Chebyshev (MVUE) UCL		191.5
141						99% Chebyshev (MVUE) UCL	245.3					
142												
143								<b>Nonparametric Distribution Free UCL Statistics</b>				
144								<b>Data do not follow a Discernible Distribution (0.05)</b>				
145												
146								<b>Nonparametric Distribution Free UCLs</b>				
147						95% CLT UCL	103.8			95% Jackknife UCL		104
148						95% Standard Bootstrap UCL	103.4			95% Bootstrap-t UCL		112.2
149						95% Hall's Bootstrap UCL	114.6			95% Percentile Bootstrap UCL		106.2
150						95% BCA Bootstrap UCL	110.4					
151						90% Chebyshev(Mean, Sd) UCL	119.4			95% Chebyshev(Mean, Sd) UCL		135
152						97.5% Chebyshev(Mean, Sd) UCL	156.7			99% Chebyshev(Mean, Sd) UCL		199.2
153												
154								<b>Suggested UCL to Use</b>				
155						95% Chebyshev (Mean, Sd) UCL	135					
156												
157						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
158						These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)						
159						and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.						

### Q-Q Plot for Lead Site-wide



C0  
N = 86  
Mean = 78.99  
Sd = 117.1  
Slope = 90.21  
Intercept = 78.99  
Correlation, R = 0.761

■ Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation	4/3/2015 2:02:47 PM										
5	From File	WorkSheet.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	C0											
12												
13	General Statistics											
14	Total Number of Observations	86					Number of Distinct Observations	86				
15							Number of Missing Observations	0				
16	Minimum	4.12					Mean	78.99				
17	Maximum	678					Median	36.9				
18	SD	117.1					Std. Error of Mean	12.63				
19	Coefficient of Variation	1.482					Skewness	3.159				
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic	0.597					Shapiro Wilk GOF Test					
23	5% Shapiro Wilk P Value	0					Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic	0.279					Lilliefors GOF Test					
25	5% Lilliefors Critical Value	0.0955					Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL	99.99					95% Adjusted-CLT UCL (Chen-1995)	104.4				
31							95% Modified-t UCL (Johnson-1978)	100.7				
32												
33	Gamma GOF Test											
34	A-D Test Statistic	3.102					Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value	0.787					Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic	0.183					Kolmogrov-Smirnoff Gamma GOF Test					
37	5% K-S Critical Value	0.0997					Data Not Gamma Distributed at 5% Significance Level					
38	Data Not Gamma Distributed at 5% Significance Level											
39												

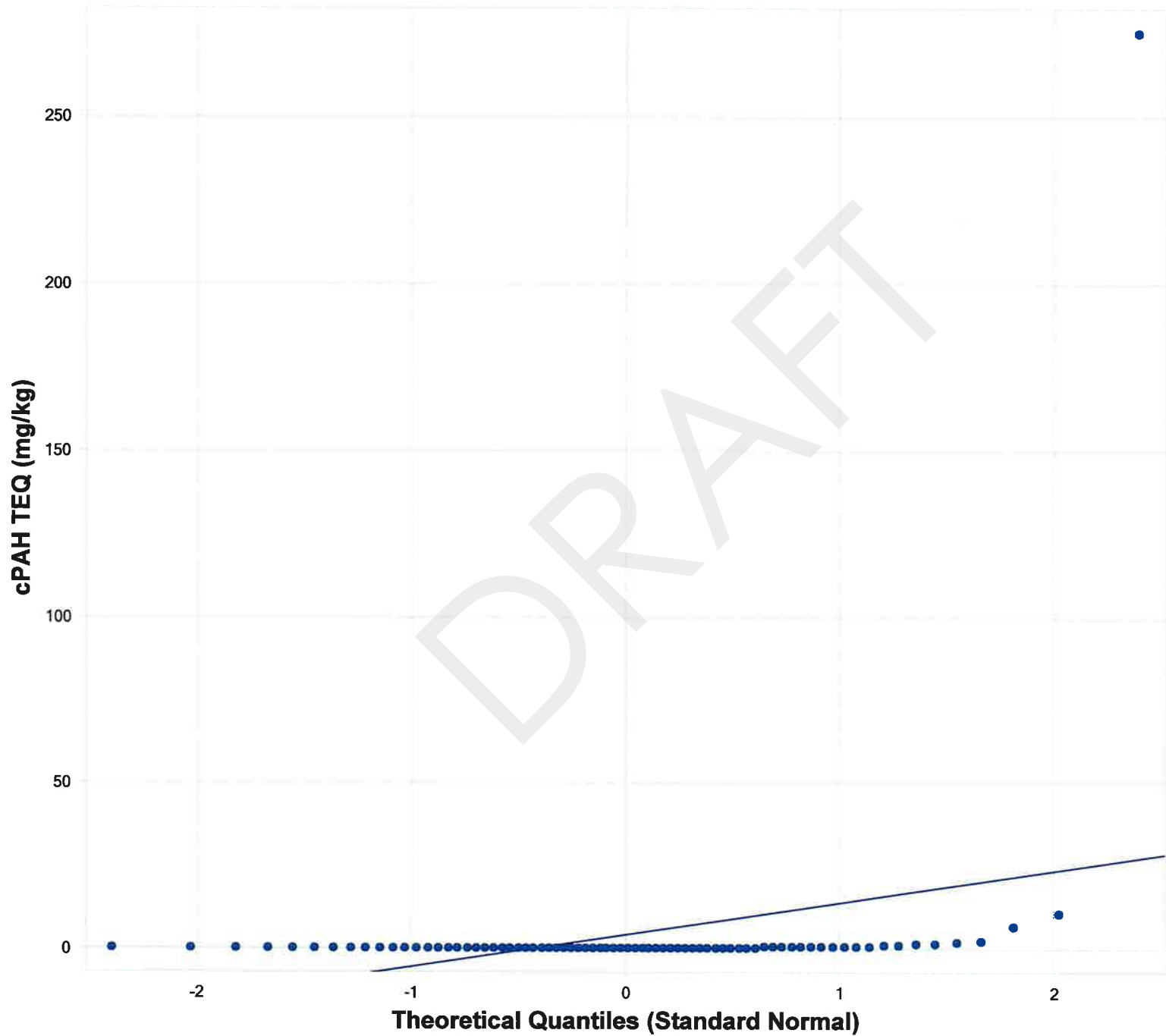
	A	B	C	D	E	F	G	H	I	J	K	L
40	<b>Gamma Statistics</b>											
41					k hat (MLE)	0.896				k star (bias corrected MLE)		0.873
42					Theta hat (MLE)	88.12				Theta star (bias corrected MLE)		90.5
43					nu hat (MLE)	154.2				nu star (bias corrected)		150.1
44					MLE Mean (bias corrected)	78.99				MLE Sd (bias corrected)		84.55
45										Approximate Chi Square Value (0.05)		122.8
46					Adjusted Level of Significance	0.0472				Adjusted Chi Square Value		122.4
47												
48	<b>Assuming Gamma Distribution</b>											
49					95% Approximate Gamma UCL (use when n>=50))	96.57				95% Adjusted Gamma UCL (use when n<50)		96.9
50												
51	<b>Lognormal GOF Test</b>											
52					Shapiro Wilk Test Statistic	0.965				Shapiro Wilk Lognormal GOF Test		
53					5% Shapiro Wilk P Value	0.088				Data appear Lognormal at 5% Significance Level		
54					Lilliefors Test Statistic	0.101				Lilliefors Lognormal GOF Test		
55					5% Lilliefors Critical Value	0.0955				Data Not Lognormal at 5% Significance Level		
56					Data appear Approximate Lognormal at 5% Significance Level							
57												
58	<b>Lognormal Statistics</b>											
59					Minimum of Logged Data	1.416				Mean of logged Data		3.717
60					Maximum of Logged Data	6.519				SD of logged Data		1.113
61												
62	<b>Assuming Lognormal Distribution</b>											
63					95% H-UCL	101.4				90% Chebyshev (MVUE) UCL		109.1
64					95% Chebyshev (MVUE) UCL	124.3				97.5% Chebyshev (MVUE) UCL		145.4
65					99% Chebyshev (MVUE) UCL	186.8						
66												
67	<b>Nonparametric Distribution Free UCL Statistics</b>											
68					Data appear to follow a Discernible Distribution at 5% Significance Level							
69												
70	<b>Nonparametric Distribution Free UCLs</b>											
71					95% CLT UCL	99.76				95% Jackknife UCL		99.99
72					95% Standard Bootstrap UCL	99.91				95% Bootstrap-t UCL		106.5
73					95% Hall's Bootstrap UCL	106.3				95% Percentile Bootstrap UCL		100.3
74					95% BCA Bootstrap UCL	105.3						
75					90% Chebyshev(Mean, Sd) UCL	116.9				95% Chebyshev(Mean, Sd) UCL		134
76					97.5% Chebyshev(Mean, Sd) UCL	157.9				99% Chebyshev(Mean, Sd) UCL		204.6
77												
78	<b>Suggested UCL to Use</b>											



	A	B	C	D	E	F	G	H	I	J	K	L
79	95% Chebyshev (Mean, Sd) UCL 134											
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

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### Q-Q Plot for cPAH (TEQs)



C0

N = 76

Mean = 4.13

Sd = 31.53

Slope = 9.763

Intercept = 4.13

Correlation, R = 0.306

■ Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation	4/3/2015 2:14:20 PM										
5	From File	WorkSheet.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	CPAHs (Laboratory Concentrations)											
12												
13	General Statistics											
14	Total Number of Observations	76					Number of Distinct Observations	75				
15							Number of Missing Observations	0				
16	Minimum	0.0175					Mean	4.13				
17	Maximum	275.1					Median	0.115				
18	SD	31.53					Std. Error of Mean	3.616				
19	Coefficient of Variation	7.633					Skewness	8.69				
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic	0.131					Shapiro Wilk GOF Test					
23	5% Shapiro Wilk P Value	0					Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic	0.486					Lilliefors GOF Test					
25	5% Lilliefors Critical Value	0.102					Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL	10.15					95% Adjusted-CLT UCL (Chen-1995)	13.93				
31							95% Modified-t UCL (Johnson-1978)	10.75				
32												
33	Gamma GOF Test											
34	A-D Test Statistic	15.89					Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value	0.901					Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic	0.356					Kolmogrov-Smirnoff Gamma GOF Test					
37	5% K-S Critical Value	0.113					Data Not Gamma Distributed at 5% Significance Level					
38	Data Not Gamma Distributed at 5% Significance Level											
39												

	A	B	C	D	E	F	G	H	I	J	K	L
40	<b>Gamma Statistics</b>											
41					k hat (MLE)	0.228				k star (bias corrected MLE)		0.228
42					Theta hat (MLE)	18.08				Theta star (bias corrected MLE)		18.1
43					nu hat (MLE)	34.73				nu star (bias corrected)		34.69
44					MLE Mean (bias corrected)	4.13				MLE Sd (bias corrected)		8.645
45										Approximate Chi Square Value (0.05)		22.22
46					Adjusted Level of Significance	0.0468				Adjusted Chi Square Value		22.02
47												
48	<b>Assuming Gamma Distribution</b>											
49					95% Approximate Gamma UCL (use when n>=50))	6.449				95% Adjusted Gamma UCL (use when n<50)		6.505
50												
51	<b>Lognormal GOF Test</b>											
52					Shapiro Wilk Test Statistic	0.888				Shapiro Wilk Lognormal GOF Test		
53					5% Shapiro Wilk P Value	1.7714E-7				Data Not Lognormal at 5% Significance Level		
54					Lilliefors Test Statistic	0.125				Lilliefors Lognormal GOF Test		
55					5% Lilliefors Critical Value	0.102				Data Not Lognormal at 5% Significance Level		
56					Data Not Lognormal at 5% Significance Level							
57												
58	<b>Lognormal Statistics</b>											
59					Minimum of Logged Data	-4.046				Mean of logged Data		-1.736
60					Maximum of Logged Data	5.617				SD of logged Data		1.577
61												
62	<b>Assuming Lognormal Distribution</b>											
63					95% H-UCL	1.035				90% Chebyshev (MVUE) UCL		1.036
64					95% Chebyshev (MVUE) UCL	1.238				97.5% Chebyshev (MVUE) UCL		1.518
65					99% Chebyshev (MVUE) UCL	2.069						
66												
67	<b>Nonparametric Distribution Free UCL Statistics</b>											
68	Data do not follow a Discernible Distribution (0.05)											
69												
70	<b>Nonparametric Distribution Free UCLs</b>											
71					95% CLT UCL	10.08				95% Jackknife UCL		10.15
72					95% Standard Bootstrap UCL	10.13				95% Bootstrap-t UCL		234.1
73					95% Hall's Bootstrap UCL	117.8				95% Percentile Bootstrap UCL		11.35
74					95% BCA Bootstrap UCL	18.44						
75					90% Chebyshev(Mean, Sd) UCL	14.98				95% Chebyshev(Mean, Sd) UCL		19.89
76					97.5% Chebyshev(Mean, Sd) UCL	26.71				99% Chebyshev(Mean, Sd) UCL		40.11
77												
78	<b>Suggested UCL to Use</b>											

	A	B	C	D	E	F	G	H	I	J	K	L
79			95% Chebyshev (Mean, Sd) UCL			19.89						
80												
81			Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.									
82			These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)									
83			and Singh and Singh (2003). However, simulation results will not cover all Real World data sets.									
84			For additional insight the user may want to consult a statistician.									
85												

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**Appendix E EMPIRICAL DEMONSTRATION OF PROTECTION OF  
GROUNDWATER**

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## EMPIRICAL DEMONSTRATION OF PROTECTION OF GROUNDWATER

For some chemicals detected in soil (dissolved beryllium, dissolved mercury, dissolved thallium, dissolved zinc, indeno[1,2,3-cd]pyrene, benzo(k)fluoranthene, and benzo(b)fluoranthene), the Method B direct human contact soil criteria protective of human health was selected as the proposed soil CUL regardless if it was higher than the CUL protective of groundwater as surface water. In accordance with WAC 173-340-747(9), if an empirical demonstration can be made that concentrations in soil are not causing an exceedance of groundwater CULs then development of a soil criteria based on groundwater protection is not needed. The MTCA regulations [WAC 173-340-747(9)(b)] identify requirements for demonstrating that soil concentrations will not cause an exceedance of groundwater cleanup levels:

- Requirement 1 - Measured groundwater concentrations must be less than or equal to the groundwater cleanup level.
- Requirement 2 - Sufficient time must have elapsed for migration of the hazardous substance from soil to groundwater to have occurred.
- Requirement 3 - Characteristics of the site that would impact migration of contaminants to groundwater must be representative of future site conditions.

Demonstration that the above requirements are met at the Site is provided in the following sections:

### Requirement 1

Groundwater analytical results for cPAHs, and dissolved metals collected during the RI are shown in **Table 30** and **32** of this report. As is indicated, beryllium, mercury, thallium, zinc, indeno[1,2,3-cd]pyrene, benzo(k)fluoranthene, benzo(b)fluoranthene were not detected in groundwater at concentrations greater than the PSLs during the RI. Based on this, the first MTCA requirement above is met.

### Requirement 2

The TCSystems Site has been used for a variety of commercial, industrial, and marine-related activities since at least 1910. Imported fill of unknown origin was placed on the Site from at least the mid-1960's and continued until approximately 1974. The depth to groundwater at the Site is shallow, ranging from approximately 2 to 11 feet below ground surface. Because the property has been used for over a hundred years and depth to groundwater is shallow, it is expected that adequate time has elapsed for constituents in soil to have reached groundwater; therefore, the second MTCA requirement above is met.

### Requirement 3

At this time, there is no planned redevelopment for the Site and existing buildings will remain in their current configuration. However, the Port of Everett is in the process of redeveloping the adjacent North Marina Area. Redevelopment could include a mix of marina support, retail, restaurant, hotel, office, and public recreational uses; however, there is no anticipated change in

current TCSystems Site use. Any changes to the Site uses are expected to decrease rather than increase the potential for migration of contaminants from soil to groundwater; therefore, current conditions are considered to be adequately representative of future conditions, meeting the third MTC requirement.

### **Conclusions**

Based on an empirical demonstration, the existing soil concentrations at the site for dissolved beryllium, dissolved mercury, dissolved thallium, dissolved zinc, indeno[1,2,3-cd]pyrene, benzo(k)fluoranthene, and benzo(b)fluoranthene are protective of groundwater, and soil cleanup levels protective of groundwater are not required for these constituents.

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