ADDENDUM TO WORK PLAN FOR INDEPENDENT PHASE 2 ENVIRONMENTAL SITE ASSESSMENT

Kimberly-Clark Worldwide Site Upland Area, Everett, Washington

Prepared for: Kimberly-Clark Worldwide, Inc.

Project No. 110207-002-03 • September 7, 2012

Aspect CONSULTING

earth + water

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1 Introduction

Aspect Consulting, LLC (Aspect) has prepared this Addendum to the Work Plan for independent Phase 2 Environmental Site Assessment (ESA) for the Upland Area portion of the Kimberly-Clark Worldwide Site (Aspect, 2012). The Site is located at 2600 Federal Avenue in Everett, Washington (Figure 1), and included a pulp and paper mill operating since 1931. The Kimberly-Clark Everett Mill is currently on Ecology's database of confirmed and suspected contaminated sites under Facility/Site Number 9. The independent Phase 2 ESA addresses the Upland Area of the Site, with a western boundary at mean higher high water (MHHW). The assessment does not include the East Waterway (Port Gardner Bay); however, one objective of the Phase 2 ESA is to evaluate whether the Upland Area currently represents a source of contamination to the East Waterway.

In February 2012, Aspect conducted Round 1 of the Phase 2 ESA to initiate evaluation of environmental conditions in three areas of the Upland Area. A Work Plan for independent Phase 2 ESA was subsequently prepared, hereafter termed the Work Plan (Aspect, 2012). The objectives of the Work Plan were to:

- Synthesize the prior environmental investigation and cleanup information for the Upland Area (including the Round 1 data);
- Identify data gaps in the prior environmental investigation/cleanup information and other historical information; and
- Define an environmental assessment scope of work to address the identified data gaps.

K-C submitted a draft Work Plan to Washington State Department of Ecology (Ecology) for review and comment. Ecology provided expedited review and written comments on the draft Work Plan (Ecology, 2012). Many but not all of the comments were incorporated, and a final Work Plan was prepared (Aspect, 2012). The assessment scope of work included in the Work Plan constituted Round 2 of the independent Phase 2 ESA.

The Work Plan acknowledged that, following completion of the assessment scope of work it defined, an additional round of data collection may be warranted to further define the contaminant nature and extent in the Upland Area. This Work Plan Addendum presents the rationale and scope of work for an additional round (Round 3) of independent assessment, as anticipated in the Work Plan.

K-C is conducting the Phase 2 ESA as an independent remedial action. However, the Work Plan and this Addendum have been prepared in general accordance with MTCA, and the ESA is intended to meet the requirements for substantial equivalence under WAC 173-340-515 involving independent remedial actions. The ESA will support, not foreclose, selection of a cleanup action consistent with MTCA requirements.

Information gathered during the independent ESA will help in development of the remedial investigation/feasibility study (RI/FS) Work Plan for the Upland Area, in accordance with WAC 173-340-350, under an Agreed Order between K-C and Ecology

that is currently in preparation. The RI/FS will be conducted to define and document the nature and extent of contamination, and define and evaluate cleanup alternatives for identified contamination, within the Upland Area, in accordance with MTCA.

1.1 Addendum Organization

The Work Plan (Aspect, 2012) included information regarding property history, environmental setting, and previous remedial actions that will not be repeated in this Addendum. However, where updated information is available, it is presented here. Likewise, the prior Sampling and Analysis Plan and Quality Assurance Project Plan (Appendices A and B of the Work Plan) are incorporated by reference in this Addendum.

Following this introductory section, the remaining sections of this Work Plan Addendum are organized as follows:

- **Section 2**—Screening Levels summarizes the numerical screening levels used to evaluate Upland Area soil and groundwater contaminant nature and extent in this independent ESA.
- **Section 3**—Assessment Findings, Data Gaps, and Proposed Round 3 Assessment presents the ESA data collection methods and results and, based on the collective information, identifies data gaps and proposes additional data collection to be conducted during Round 3 of the independent ESA. The results are organized by the areas defined in the Work Plan.
- **Section 4**—Hydrogeologic Data Collection summarizes groundwater elevation data collection and interpreted groundwater flow directions.
- **Section 5**—References lists documents cited in this Addendum.

Appendix A provides the boring logs for the Round 1 and Round 2 ESA explorations.

2 Screening Levels for Environmental Assessment

This section describes the numerical screening levels against which Upland Area soil and groundwater data are compared for identifying constituents of potential concern during the independent Phase 2 ESA. The screening levels applied in this assessment do not necessarily represent cleanup levels for the property under MTCA. Additional information may be collected in subsequent steps of the assessment process to support selection of cleanup levels and/or remediation levels for the property, in accordance with MTCA. This will be done as part of the subsequent RI/FS for the Upland Area.

2.1 Groundwater Screening Levels

Upland Area groundwater is not considered a practicable source of potable water, in accordance with MTCA (WAC 173-340-720[2]), for the reasons presented in Section 3.2.1 of the Work Plan (Aspect, 2012). Therefore, discharge to marine water, not drinking water, is proposed as the highest beneficial use for Upland Area groundwater.

Groundwater screening levels applied in this independent assessment are the most stringent criterion based on protection of the adjacent marine water body (East Waterway) and vapor intrusion (VI) to future structures (indoor air) on the property. Sections 2.1.1 and 2.1.2 describe the screening criteria for marine protection and VI protection, respectively, that are incorporated into the groundwater screening level derivation. For arsenic, the 5 µg/L MTCA Method A groundwater cleanup level, based on background, is included in the groundwater screening criteria. In addition, because there are no marine water criteria for petroleum mixtures (TPH), MTCA Method A groundwater cleanup levels, based on drinking water, are included in the groundwater screening criteria for TPH mixtures. Note that the individual constituents comprising TPH mixtures (volatile organic compounds [VOCs], polycyclic aromatic hydrocarbons [PAHs], etc.) are also analyzed for, and have their own marine-based and VI-based groundwater screening levels.

Table 1 presents the groundwater screening criteria incorporated into the groundwater screening level derivation, and the resulting most stringent groundwater screening levels applied for this independent assessment.

2.1.1 Protection of Marine Water Quality

For protection of marine water quality, screening levels are the most stringent of the following aquatic life criteria (marine chronic) and human health criteria for consumption of aquatic organisms under state and federal laws:

- MTCA standard Method B surface water cleanup levels based on human consumption of fish (human health only);
- Washington State Water Quality Standards (WAC 173-201A-240);
- Federal National Recommended Water Quality Criteria pursuant to Section 304(a) of the Clean Water Act; and

- The Federal National Toxics Rule (NTR; 40 CFR 131.36).

2.1.2 Protection from Vapor Intrusion (VI)

Volatilization of contaminants in shallow groundwater can potentially create vapor intrusion into future structures (indoor air) or outdoor ambient air within the Upland Area. For the purposes of this environmental assessment, conservative ("Tier 1") groundwater VI screening levels are obtained from Appendix B to Ecology's draft guidance for evaluating soil gas intrusion (Ecology, 2009). That document's air cleanup levels for VOCs of potential concern in the Upland Area (e.g., benzene, toluene, ethylbenzene, xylenes, trimethylbenzenes), from which the VI-based groundwater criteria are derived, are consistent with current values (August 2012) included in Ecology's online Cleanup Level and Risk Calculation database (CLARC; (https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx). If needed, measured soil gas data can also be used to assess the groundwater-to-air pathway, in accordance with Ecology (2009).

2.2 Soil Screening Levels

Because future land use in the Upland Area is not currently determined, the environmental assessment soil data are evaluated relative to soil screening levels for both unrestricted and industrial land uses. The unrestricted soil screening levels are the most stringent of MTCA Method B soil cleanup levels and Method A unrestricted soil cleanup levels. The industrial soil screening levels are the most stringent of MTCA Method C soil cleanup levels and Method A unrestricted soil cleanup levels. The soil criteria are downloaded from Ecology's online CLARC database as of August 2012.

Table 2 presents the soil screening criteria incorporated into the soil screening level derivation, and the resulting soil screening levels applied for this independent assessment.

3 Assessment Findings, Data Gaps, and Proposed Round 3 Assessment

This section summarizes the assessment results from Rounds 1 and 2 of the independent Phase 2 ESA and, based on that information, identifies remaining data gaps warranting further investigation, for each of the areas identified in the Work Plan (Aspect, 2012). The scope of the Work Plan focused on addressing recognized environmental conditions (RECs) and historical RECs (HRECs) identified in the Phase I ESA (AECOM, 2011), as well as other areas with existing environmental data and/or historical operations that warranted assessment to evaluate the presence or absence of contamination. The objective and intent was to evaluate those areas of the Site most likely to contain contaminants. The field sampling and analysis methods employed during Round 2 were consistent with those described in the Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) included as Appendices A and B, respectively, of the Work Plan. To date, localized contamination has been discovered in the Upland Area, consisting primarily of metals and hydrocarbons at levels commonly found at older industrial facilities.

As discussed in the Work Plan, the following RECs and HRECs will be addressed in the near future during mill demolition, as structures are removed, so were not investigated during the independent assessment:

- Potential total petroleum hydrocarbon (TPH) contamination within and beneath the heavy duty shop sump (REC 3); however, an area of reported oily water discharge just north of the sump was investigated during the assessment;
- Potential TPH contamination beneath the rail dumper hydraulic system building (REC 4), which appears to be constructed on top of the Pulp Mill dock;
- Potential Bunker C TPH contamination beneath the Screen/Bleach Unit 2 of the Pulp Mill (HREC 3); and
- Potential PCB contamination associated with electrical transformers 5 and 6 within Screen/Bleach Unit 2 (HREC 4).

The following sections describe, area by area, the methods and findings from the independent ESA to date, and identifies data gaps and additional characterization proposed for Round 3 of the independent ESA planned for early September 2012. Deviations from the Work Plan, where they occurred, are also described specific to the areas. Figure 1 shows locations of collective explorations completed during Rounds 1 and 2 of the independent ESA to date.

Note that the Round 3 explorations proposed below are contingent upon access during ongoing demolition activities. If access to specific explorations cannot be safely made during the planned Round 3 timeframe, the explorations will be deferred until a later date. Likewise, specific proposed Round 3 exploration locations are contingent upon avoidance of subsurface utilities and other access considerations.

3.1 REC 1: ExxonMobil ADC Site

As described in the Work Plan, additional assessment of REC 1 was not conducted during Round 2, pending review of the findings from ExxonMobil and ADC's recent independent cleanup of liquid phase hydrocarbons (LPH) seeping through the asphalt pavement on K-C's Upland Area property just south of the Distribution Warehouse (Everett Avenue easement). The ExxonMobil/ADC independent cleanup work was done, without Ecology oversight, in advance of the City of Everett replacing a sewer line in that area (on K-C property). The report of the independent action (AMEC, 2012) states that the source of the LPH appeared to be in part coming from property owned by BNSF (location of former monitoring wells MW-27 and MW-29 on BNSF property). As a result, the cleanup activities started on BNSF property and proceeded north onto K-C property. The cleanup work was completed between December 2011 and April 2012.

According to AMEC (2012), the northern lateral extent of excavation, and the depth of excavation (3 to 5 feet), on K-C's property was limited in order to protect existing utilities. The northern limit of excavation maintained a 12-foot separation from the south edge of K-C's Warehouse based on City of Everett requirements to maintain vehicle access in that location. Approximately 725 tons of soil and debris were reportedly removed from K-C property for offsite disposal. In addition, nearly 1.5 million gallons of petroleum-impacted groundwater was removed from BNSF property and discharged to City of Everett's wastewater treatment plant, under a discharge authorization (DA) from the City. The amount of LPH present at the surface lessened as the excavation proceeded to the west, and therefore the excavation was terminated at a line approximately 30 feet west of the intersection of the BNSF property line with Everett Avenue. No soil samples were collected on K-C's property, and observations of the excavation conditions on K-C's property are not reported.

Fourteen years earlier, Pacific Environmental Group (PEG) (1998), on behalf of K-C, Chevron, Texaco, and BNSF, conducted an environmental investigation to assess petroleum contamination encountered in 1995 adjacent to the City of Everett Combined Sewer Outfall (CSO) line, which runs east-west immediately south of the K-C Distribution Warehouse. The purpose of the investigation was to evaluate soil and groundwater quality in the vicinity of former petroleum bulk facilities located north of the CSO (former Associated Oil and Standard Oil facilities on K-C property) and south of it (on ExxonMobil/ADC site), to assess whether the historical facilities contributed to petroleum contamination documented at the CSO line. Approximate locations of the former Associated Oil and Standard Oil facilities are shown on Figure 2.

The PEG (1998) investigation consisted of advancing 15 soil borings (Probe-1 through Probe-15), with collection and analysis of reconnaissance groundwater samples from 14 of them. The investigation also included installation and groundwater sampling of two monitoring wells (KC-1 and KC-2), drilled through the floor of K-C's Distribution Warehouse, and located between the former Standard Oil facilities near the middle of the Warehouse and the observed petroleum contamination just south of the Warehouse. The two wells have since been decommissioned. Figure 2 depicts (grayed back) locations of the PEG (1998) explorations.

The 1998 investigation confirmed the highest petroleum concentrations in Probes 7 and 11, located immediately adjacent to the CSO line (groundwater diesel/oil-range TPH concentrations above 90,000 µg/L in both). Just to the north, beneath the Warehouse, diesel/oil-range groundwater TPH concentrations at wells KC-1 and KC-2 were below the 500 µg/L groundwater screening level (430 µg/L at well KC-1; non-detect at well KC-2). These data suggest that the source of TPH encountered along the CSO line is not migrating from the former Standard Oil facilities K-C property, consistent with AMEC's (2012) interpretation of a petroleum source to the south of the CSO line.

Data Gaps and Proposed Assessment for REC 1 Area

Additional data are warranted to define the nature and extent of petroleum impacts associated with the former Standard Oil (now Chevron) fuel storage facilities beneath K-C's Distribution Warehouse.

The data collection proposed for this area during Round 3 of the independent ESA is as follows (and shown on Figure 2):

- Advance to 20 feet and sample soil from nine soil borings to be completed as monitoring wells (REC1-MW-1 through MW-9), located as follows:
  - REC1-MW-1 and REC1-MW-2 will be completed on the downgradient (west) edge of the former Standard Oil facilities located beneath K-C's Distribution Warehouse.
  - REC1-MW-3 and REC1-MW-4 will be completed on the downgradient (west) edge of the former Associated Oil facilities located beneath and on the west edge of K-C's Distribution Warehouse.
  - REC1-MW-5 will be completed on the downgradient (west) edge of K-C's Distribution Warehouse adjacent to the southern property boundary with the Exxon/Mobil property.
  - REC1-MW-6 and REC1-MW-7 will be completed inside the south edge of the Distribution Warehouse, just north of the CSO line, from where liquid-phase petroleum was removed and the highest TPH concentrations were detected in groundwater during the PEG (1998) investigation.
  - REC1-MW-8 will be completed at the south property boundary, at the location of inferred former Standard Oil fuel storage tanks.
  - REC1-MW-9 will be completed on the shoreline, at the south property boundary.
- Based on field screening information, analyze up to 3 soil samples from each boring for gasoline-range TPH, diesel-/oil-range TPH, VOCs and PAHs; and
- Analyze the groundwater samples for gasoline-range TPH, diesel-/oil-range TPH, VOCs, low-level PAHs, and TSS. As a shoreline well, the groundwater sample from REC1-MW-9 will also be analyzed for priority pollutant metals, SVOCs, dissolved sulfide, and ammonia, consistent with the other shoreline wells.

The precise locations of the proposed wells are dependent on access, particularly within the Warehouse.

3.2 REC 2: Former Oil House and Fuel ASTs

The Round 1 assessment work identified Bunker C-contaminated soil warranting remediation within the former Bunker C above-ground storage tank (AST) area (described in Aspect, 2012). Further delineation of the extent of contaminated soil, including sampling beneath the footprint of the shipping warehouse, was warranted to design and estimate cost for a prospective cleanup action.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 3A):

- Advanced and sampled soil from 12 additional soil borings (REC2-B-1 through -12) in and around the inferred area of Bunker C-contaminated soil as determined from Round 1 data collection. Five borings (REC2-B-1, -2, -3, -6, -10) were advanced within the north end of Warehouse, through the building floor. Based on field screening information, analyzed the soil samples for diesel-/oil-range TPH and PAHs;
- Installed and sampled soil from a new monitoring well boring (REC2-MW-5) located downgradient of the existing 250,000-gallon diesel AST immediately north of the distribution warehouse. Based on field screening information, analyzed the soil samples for diesel-/oil-range TPH and PAHs; and
- Collected groundwater samples from the five REC 2 area monitoring wells (existing wells MW-1 through -4 and new well REC2-MW-5) for analysis of gasoline-range TPH, VOCs, diesel-/oil-range TPH, low-level PAHs, and total suspended solids (TSS). In addition, the groundwater sample from well MW-4 was analyzed for total and dissolved lead, in replicate, to verify the result from the February 2012 sampling (Aspect, 2012). The groundwater samples from shoreline wells MW-1 and MW-2 were also analyzed for SVOCs, dissolved priority pollutant metals, dissolved sulfide, and ammonia. The groundwater sample from well MW-2 was one of ten Round 2 groundwater samples also analyzed for total priority pollutant metals (unfiltered sample) to assess influence of sample turbidity on metals results.

Assessment Findings

Soil Quality Data

The Round 2 data collection provided better refinement regarding the extent of Bunker C soil contamination previously identified in the area of the former ASTs (Aspect, 2012). Table 3A presents the soil quality data for this area, and Figure 3A depicts the soil TPH data for this area. On Figure 3A, explorations with detected Bunker C soil concentrations[1] exceeding the 2,000 mg/kg soil screening level[2] are shown in brown; explorations with concentrations below the screening level are shown in green.

Within the center of the identified Bunker C contamination, detected Bunker C soil concentrations exceed 20,000 mg/kg, which are at or above residual saturation

[1] Sum of detected diesel- and oil-range TPH concentrations since they represent a single petroleum product type, in accordance with MTCA. Referred to as "Total TPH" in tables and figures.
[2] Based on groundwater protection, thus same screening level for unrestricted or industrial land use.

concentrations. Consistent with the Round 1 observations, no separate-phase product accumulation was observed on the water table in any of the Round 2 borings, but the contamination is present beneath the water table – maximum observed depth of 10 to 12 feet[3]. Bunker C oil has a density very close to that of water (specific gravity of 0.95 to 1.03; NOAA, 2006; CITGO, 2006), so may float or sink through saturated soil, depending on degree of weathering, soil characteristics, and other factors. In any event, the vertical extent of Bunker C exceedance in soil is vertically bound at each of the borings (Table 3A; Figure 3A).

Downgradient of the existing 250,000-gallon diesel AST, TPH was detected at 5,030 mg/kg (predominantly oil-range) in the upper 2 feet of soil at REC2-MW-5. The underlying 2.5- to 3.5-foot and 7- to 8-foot (at water table) soil samples had no detectable petroleum (Table 3A; Figure 3A). The surficial detection of oil at this location does not appear related to the diesel AST.

Total cPAH concentrations[4] are detected above the 0.14 mg/kg unrestricted soil screening level in soil samples with greater than 2,000 mg/kg TPH (Table 3A). Note that the 0.14 mg/kg total cPAH unrestricted soil screening level is below urban background soil concentrations measured in Seattle residential neighborhoods (90th percentile of 0.39 mg/kg total cPAH; Ecology, 2011).

Groundwater Quality Data

The Round 2 groundwater TPH concentrations were somewhat higher than detected in Round 1, but were still at or below respective groundwater screening levels based on potable groundwater (Table 3B). During Round 2, gasoline- and diesel-range TPH were detected in well MW-3 at concentrations (960 and 500 µg/L, respectively) at or below the respective 1,000 and 500 µg/L groundwater screening levels. In accordance with MTCA (WAC 173-340-900 Table 720-1), a 1,000 µg/L gasoline-range TPH groundwater screening level is applied since benzene is not detected in REC 2 groundwater (or soil). TPH was not detected in shoreline wells MW-1 and MW-2, located downgradient of REC 2, consistent with Round 1 data (Table 3B).

One low-level PAH exceedance was detected in the Round 2 groundwater samples: 0.02 µg/L total cPAHs, marginally above the 0.018 µg/L screening level, in well MW-4 (confirmed in a field duplicate sample). No PAH exceedances were detected in groundwater samples from the shoreline wells MW-1 and MW-2 (Table 3B).

Figure 3B displays TPH, naphthalene (a mobile PAH commonly associated with Bunker C), and total cPAH data for REC 2 groundwater (Round 1 and 2 data). Data from the UST 68 area monitoring wells downgradient of REC 2 are also displayed (installed to monitor for former gasoline UST 68, as described in Section 3.7).

[3] Boring REC2-B-12 had 39,000 mg/kg in the 8- to 9-foot sample. The boring had hard drilling below about 11 or 12 feet and hit refusal at about 14 feet; thus the drill rig moved over a few feet to re-drill deeper. TPH was non-detect in the 17- to 18-foot sample from that boring (Table 3A).
[4] Total cPAHs, calculated as toxic equivalent concentration of benzo(a)pyrene, in accordance with MTCA (WAC 173-340-708[8]).

During the Round 2 groundwater sampling, lead was detected in groundwater from well MW-4 at a concentration (14 µg/L dissolved; 23 µg/L total[5]) above the 8.1 µg/L screening level, confirming the Round 1 exceedance (Table 3B). The elevated dissolved-phase lead is attributable to alkaline (pH > 10) groundwater present at well MW-4, which is attributable to its location immediately downgradient of the former caustic storage tank. Slightly alkaline groundwater pH (7.6 to 8.4) and lead concentrations below the screening level are measured in downgradient shoreline wells MW-1 and MW-2 (Table 3B).

The Round 2 data confirm that REC 2 groundwater is slightly to moderately reducing (field-measured oxidation-reduction potential [ORP] ranging from -146 at inland well REC2-MW-5 to 114 mv at shoreline well MW-1), and moderately to highly brackish (specific conductance field measurements ranging from 266 at REC2-MW-5 to 19,500 uS/cm at shoreline well MW-2).

The groundwater exceedances detected in shoreline wells MW-1 and MW-2 were nickel (13.1 µg/L, above 8.2 µg/L screening level) and copper (2.6 µg/L, marginally above the 2.4 µg/L screening level) (Table 3B). Arsenic, copper, and nickel concentrations above the stringent screening levels are commonly detected in Upland Area groundwater, attributable to geochemically reducing (anoxic) groundwater within a nearshore organic-rich fill unit (e.g., dredge fill with wood). Figure 7, discussed in Section 3.6, displays groundwater exceedances for each of the 14 shoreline wells installed along the Upland Area shoreline. Relatively low-turbidity groundwater samples were achieved for the REC 2 monitoring wells, and dissolved (filtered) and total (unfiltered) metals concentrations were generally comparable in the sample from MW-2, where both were measured (Table 3B).

The groundwater samples collected from shoreline wells MW-1 and MW-2 had no detectable dissolved sulfide or SVOCs (including phenol, methylphenols). Ammonia was detected in MW-2 at 0.118 mg/L, above the 0.035 mg/L screening level; ammonia was not detected in MW-1.

Data Gaps and Proposed Round 3 Assessment for REC 2

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the REC 2 wells, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).
- Additional investigation is warranted for the diesel AST area including the adjacent diesel pump house. This area is considered distinct from REC 2, and is addressed in Section 3.18.

Opportunistic Interim Action Recommended

Beyond the Round 3 assessment, we recommend planning for an opportunistic interim action removal of Bunker C-contaminated soil in REC 2, to be conducted in coordination with mill demolition activities, and in accordance with the Interim Action Plan (Exhibit C

[5] Total metals are from unfiltered samples, which include suspended solids. Dissolved metals are from filtered samples to remove suspended sediment larger than 0.45 microns.

to forthcoming Agreed Order). The collective Round 1 and 2 explorations define the lateral and vertical extent of Bunker C soil contamination sufficiently to initiate a soil cleanup action for REC 2. Given the long-term storage of oil in this area, and the multiple configurations of storage tanks, pipelines, etc., multiple separate releases of oil are probable, which is suggested by the data. For example, shallow contamination at REC2-B-4 may be a surficial release not contiguous with deeper contamination in borings to the southeast. Removal of Bunker C-contaminated soil is warranted in this area and soil excavation will reveal the extent of contamination most accurately, such that additional time and money would be better spent removing contaminated soil, rather than further investigation, in our opinion.

Excavation would be conducted at each exploration location where Bunker C concentrations above 2,000 mg/kg have been detected, and extend laterally and vertically until soil containing Bunker C concentrations above 2,000 mg/kg are removed to the extent practicable, as confirmed by excavation soil verification sampling and analysis. If warranted, additional analysis can be conducted to generate risk-based TPH soil cleanup levels for REC 2. The interim action soil removal would not extend beneath the Warehouse. Additional sampling and analysis of soil and groundwater beneath the Warehouse will be conducted in Round 3 (Section 3.1), providing data to assess whether residual Bunker C in soil beneath the Warehouse is a source of groundwater contamination.

As described in PEG (1998), a portion of the subsurface Bunker C pipeline between the unloading dock south of the Old Machine Shop to the former Bunker C AST remains in place (its west end is currently visible at the unloading dock). Soil and groundwater sampling along the pipeline (borings DP-10 through DP-13, MW-1, and MW-2) indicated no contamination (Figure 3A). However, we recommend removal of the remaining pipeline, with removal of associated contaminated soil if present, as part of the opportunistic interim action.

3.3 REC 3: Heavy Duty Shop Sump

In 1991, an estimated 40 to 50 cubic yards of petroleum-stained soil was removed from an area north of the Heavy Duty Shop where oily water from the Shop sump was reportedly diverted in 1990 (refer to Section 4.1.3 of Aspect, 2012). The location of the soil removal was not well documented, and verification data from the cleanup were not reported. Therefore, soil and groundwater quality data were warranted to assess residual TPH concentrations.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 4):

- Advanced and sampled soil from one soil boring (REC3-MW-1) in the inferred area of the 1991 soil cleanup. Analyzed the soil sample collected at the water table for diesel-/oil-range TPH, VOCs, PAHs, total lead, and PCBs; and
- Completed the boring as a monitoring well, and collected a groundwater sample from it for analysis of diesel-/oil-range TPH, low-level PAHs, and TSS. Because it is a shoreline well, the REC3-MW-1 groundwater sample was also analyzed for

the full suites of VOCs and SVOCs, priority pollutant metals, ammonia, and dissolved sulfide.

Assessment Findings

No field screening evidence of petroleum was noted during drilling of REC3-MW-1, and the soil sample contained no detectable concentrations of TPH, VOCs, PAHs, or PCBs (Table 4A). The groundwater sample had no detectable TPH, VOCs, SVOCs, or dissolved sulfide, had dissolved metals below screening levels, and contained an ammonia concentration (0.041 mg/L) marginally above the 0.035 mg/L screening level (Table 4B).

Proposed Round 3 Assessment for REC 3

No data gaps are identified for this area. The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the REC 3 well, repeating the Round 2 groundwater sampling and analyses as outlined in the Work Plan.

3.4 REC 5: Dutch Ovens

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 5):

- Advanced and sampled soil at the water table from one soil boring (REC5-MW-1) on the west (downgradient) end of the Old Boiler House. The soil sample was analyzed for priority pollutant metals, and, because waste solvents were reportedly disposed of in the adjacent hog fuel pile, VOCs; and
- Completed the boring as a monitoring well, and collected a groundwater sample from it for analysis of total and dissolved priority pollutant metals, VOCs, and TSS.

Assessment Findings

The REC5-MW-1 soil sample contained metals concentrations below respective screening levels for unrestricted use, and no detectable VOCs (Table 5A).

The REC5-MW-1 groundwater sample contained no detectable VOCs, but contained concentrations of selected metals (both dissolved and total) above respective screening levels. The higher of dissolved or total concentrations in the sample are: 218 µg/L arsenic, 226 µg/L copper, 234 µg/L lead, 0.57 µg/L mercury, 14.8 µg/L nickel, and 274 µg/L zinc (confirmed in field duplicate sample; Table 5B). The detected metals concentrations, particularly arsenic, copper, and lead, are well above those detected elsewhere on site. The shoreline well UST70-MW-2 located generally downgradient has much lower groundwater metals concentrations, with exceedances for arsenic (5.2 µg/L) and zinc (116 µg/L), as described in Section 3.9 and depicted on Figure 7.

Groundwater at REC5-MW-1 is reducing (ORP = -114 mv), mildly alkaline (pH = 8.5), and only slightly brackish (specific conductance = 384 uS/cm). It is also warm (23°C) due to proximity to the hog fuel pile, with its high degree of biological (microbial) activity. Wells within the footprint of the hog fuel area, in the USTs 70 and 71 areas,

have warmer groundwater, as previously documented in Landau (1991) and discussed in Sections 3.9 and 3.10.

In our experience, given the groundwater geochemistry, the metals concentrations detected in upgradient soil removed from beneath the Boiler House during foundation work for Sand Filter 1 (e.g., arsenic up to 35 mg/kg, lead up to 140 mg/kg; CRETE, 2011[6]), and the soil metals concentrations detected at the REC5-MW-1 location (Table 5B), are not high enough to account for the groundwater metals concentrations detected at REC5-MW-1.

REC5-MW-1 is not a shoreline well, and its groundwater sample and field duplicate were not brackish based on field specific conductance; therefore, pre-treatment was not conducted for their metals analyses. The dissolved metals concentrations show greater variability than the total metals concentrations, which may suggest chemical interference in the analysis. Although the validation of metals analytical data does not reveal specific analytical QC issues, the ICP-MS analysis (all metals except mercury) can be subject to interferences from chemicals other than salinity, including sulfate. The REC5-MW-1 groundwater sample is currently undergoing re-analysis with reductive precipitation pre-treatment (EPA Method 1640) as a confirmatory step, in accordance with the QAPP (Appendix B to Aspect, 2012).

Proposed Round 3 Assessment for REC 5

Resolving the source of groundwater metals concentrations detected at REC5-MW-1 is currently a data gap for REC 5. The June 2012 groundwater sample is still within analytical hold time for the metals analyzed by ICP-MS (all but mercury), and is undergoing re-analysis for those metals with reductive precipitation pretreatment, as stated above. REC 5 was defined in AECOM (2011) based on metals concentrations detected in soils upgradient of REC5-MW-1. Therefore, additional soil sampling and analysis for metals, and potential opportunistic soil cleanup, within REC 5 had been planned following demolition of the Old Boiler House, as indicated in the Work Plan Aspect (2012). However, given the groundwater data from REC5-MW-1, additional soil sampling for metals is warranted during the Round 3 assessment to assess potential source concentrations not currently documented.

The proposed Round 3 data collection for this area therefore includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the REC 3 well, repeating the Round 2 groundwater sampling and analyses as outlined in the Work Plan.
- Through the floor of the Old Boiler House, advance six hand-augered soil borings (REC5-HA-1 through -6; Figure 5) to 3-foot depth. From each boring, analyze two soil samples (0- to 1-foot and 2- to 3-foot depths below soil grade) for priority pollutant metals. Precise locations for the proposed borings will depend on access within the building.

Further delineation and removal of soils containing elevated metals concentrations can also occur during demolition of the Old Boiler House, as warranted.

[6] The basis for defining REC 5 (see Section 4.1.2 in Aspect, 2012).

3.5 REC 6 (Latex Spill) and Former UST No. 29, 67

A release of xylene to soil and groundwater was identified during the 1989 removal of USTs No. 29 and 67 located immediately west of the Paper Machine Building. Adjacent to that location, a release of latex product occurred in 2008 (refer to Sections 4.1.5 and 4.1.11 of Aspect [2012] respectively). Data collected during the Round 2 assessment indicates that the latex spill area (REC 6) overlaps with the adjacent xylene release area (UST 29, 67; HREC 1); therefore, the areas are discussed together in this section.

Updated Historical Information regarding Xylene Release (UST 29)

Since preparation of the Work Plan (Aspect, 2012), we have obtained documentation (Landau, 1989, 1992, 1994) for the identification and cleanup activities associated with a release of xylene from the former 12,500-gallon xylene UST (UST No. 29). That information, updating the prior description in the Work Plan (Aspect, 2012), is summarized below.

A release of xylene to soil and groundwater was identified during removal of USTs No. 29 and 67 in 1989 (Landau, 1989). The USTs were positioned end-to-end and were located immediately west of the Paper Machine Building. UST 29 was a 12,500-gallon single-walled UST used to store xylene, which was used as a solvent for cleaning certain machinery in the paper mill. UST 67 was a 12,500-gallon single-walled UST used to store kerosene. Figure 6 depicts the locations former tanks and their excavation outline, as reported in Landau (1989).

The xylene release was first identified by solvent odors observed during the initial excavation conducted on November 7, 1989. USTs 29 and 67 were subsequently removed on November 8, 1989, and excavated soil was stockpiled on site. No release of kerosene was observed during decommissioning of UST 67; however, the xylene release from UST 29 was apparent in the UST 67 excavation location. During the 1989 UST decommissioning, removal of contaminated soil on the excavation's north wall was restricted by the tank pad and secondary containment wall for the Pulp Chests located immediately north of the former USTs, and currently in place.

During the 1989 tank removal activities, a process water drain line was broken and approximately 15,000-gallons of wastewater from the No. 1 and No. 2 paper machines filled the excavation. An oily sheen was observed on the water surface within the excavation. Water sample TS-29 was collected from the excavation for laboratory analysis, and absorbent pads were applied to limit oil material from entering the broken water line. The water line was subsequently repaired on November 9, 1989. After notifying Ecology, approximately 15,000 gallons of water were pumped from the excavation into a Baker tank for temporary storage, and subsequent treatment, on site.

Water sample TS-29, collected from the excavation, was submitted for laboratory analysis of TPH (EPA Method 418.1) and VOCs (EPA Method 8240). A TPH concentration of 310,000 µg/L was detected in the water sample by the 418.1 method, which is not specific to petroleum fraction. Subsequent analysis of water sample TS-29 by Modified EPA Method 8015 detected a concentration of 1,900,000 µg/L gasoline-range hydrocarbons, while kerosene was not detected. Total xylenes, ethylbenzene, and toluene were also detected in excavation water sample TS-29 at concentrations of

770,000 µg/L, 160,000 µg/L, and 4,800, µg/L, respectively. Benzene was not detected. Ethylbenzene and toluene are reportedly impurities in technical grade xylene (Landau, 1989).

In addition, Landau collected a sample of water stored in the Baker tank (BT-1) for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX). Detected concentrations in water sample BT-1 were 120,000 µg/L total xylenes, 20,000 µg/L ethylbenzene, and 2,100 µg/l toluene (benzene not detected).

Following testing to confirm that the mill's wastewater treatment system could adequately treat the contaminated water, and after receiving verbal approval from Ecology, the Baker tank water was discharged to the mill's secondary wastewater treatment plant at a maximum feed rate of 15 gpm for treatment (Scott Paper, 1990).

Within the final limits of the UST 29/67 excavation, discrete soil samples TS-29-W, TW-29-NW, TS-29-N, and TS-29-E[7] were collected from excavation sidewalls at a depth of approximately 4 feet bgs. Composite soil sample TS-29-STCK was also collected from the stockpile of excavated soil. The five soil samples were submitted for laboratory analysis of TPH by EPA Method 418.1, and BTEX.

As observed with the water data, the soil analytical data showed highest concentrations of xylenes with lower concentrations of ethylbenzene and much lower concentrations of toluene. In the four excavation sidewall soil samples, the lowest concentrations were detected in the eastern sidewall (0.75 mg/kg xylenes, 0.048 mg/kg ethylbenzene, and nondetect TPH, benzene, and toluene), and the highest concentrations were detected in the northern sidewall (37,000 mg/kg xylenes, 6,600 mg/kg ethylbenzene, 5,700 mg/kg TPH, non-detect benzene and toluene). The sample of stockpiled soil contained 2,800 mg/kg xylenes, 590 mg/kg ethylbenzene, and no detectable benzene or toluene. The UST 29 excavation was backfilled with the stockpiled soil removed from the excavation (Landau, 1989).

Landau then installed a test soil vapor extraction (SVE) system on top of the impacted backfill soil to passively remove vapors and for use as an active vacuum extraction system. The SVE piping was encased in an approximately 2-foot layer of pea gravel placed on top of the soil backfill, which was covered with a high density polyethylene (HDPE) liner and resurfaced with asphalt. Scott Paper informed Ecology of the SVE system operation plans (Scott Paper, 1991).

Landau initiated startup of the SVE system with two 4-hour tests conducted on November 22 and December 2, 1991. The primary purpose of the test was to measure the expected mass discharge rate of xylenes from the SVE system to assess compliance with a 15 pounds per day (lbs/day) rate dictated by the Puget Sound Air Pollution Control Agency (PSAPCA). Based on the tests, Landau calculated an expected mass flow rate of 1.3 lbs/day from the SVE system. Following review of those results, Landau initiated continuous operation of the SVE system on January 10, 1992, and recommended that operation of the SVE system continue until the mass discharge flow rate fell below 0.1 lbs/day (Landau, 1992).

[7] Soil sample ID suffixes (W, NW, N, and E) refer to the sidewall directions from which the samples were collected (west, northwest, north, east, respectively)

The SVE system operated on a near-continuous basis from startup in November 1991 through January 1993. From January 1993 through mid-1994, the SVE system was periodically shut down for 1- to 3-month periods and then restarted to operate on a pulsing basis. In mid-1994, laboratory analytical results indicated that the mass flow rate generated from the SVE system no longer warranted continued operation, and Landau initiated a compliance monitoring investigation of the tank area to assess whether the cleanup action had attained applicable cleanup standards.

The June 1994 compliance monitoring investigation consisted of (Landau, 1994):

- Advancing nine direct-push soil borings DP-1 through DP-9 to a depth of approximately 9 feet bgs in areas adjacent to and within 100 feet west (downgradient) of the former UST 29/67 excavation;
- Collecting and analyzing for BTEX six soil samples from five borings (DP-4 and DP-6 through DP-9) located around and downgradient of the excavation;
- Collecting and analyzing for BTEX grab groundwater samples from five downgradient borings (DP-1 through DP-5); and
- Collecting and submitting vapor samples from the SVE system for laboratory analysis of BTEX.

In soil borings DP-6 and DP-7, located immediately north of the excavation, detected concentrations of total xylenes ranged from 123 mg/kg in the vadose zone to 2,990 mg/kg in the saturated zone. In 1989, prior to operation of the SVE system, xylenes had been detected at 26,000 mg/kg in soil sample TS-29-N, located adjacent to the 123 mg/kg sample from DP-7, suggesting a substantial concentration decline in vadose zone soil at the excavation location. Within 10 feet west of the excavation, detected soil xylenes concentrations declined to less than 7 mg/kg (DP-8 and DP-9). Approximately 50 feet west of the former excavations, xylenes were not detected in the soil sample from boring DP-4.

Concentrations of total xylenes detected in the grab groundwater samples declined with increasing downgradient distance. Xylenes were detected at 30,560 µg/L in the DP-5 groundwater sample, located about 35 feet west of the excavation's western end. Approximately 60 feet west of the excavation, the detected groundwater xylenes concentration was 315 µg/L (boring DP-3). In borings also roughly 60 feet west of the excavations, but positioned 25 to 30 feet north (DP-2) and south (DP-4) of DP-3, xylenes were detected in groundwater at 5.1 and 1.5 µg/L, respectively. Approximately 90 feet west of the excavations, xylenes were not detected in the groundwater sample from boring DP-1. Ethylbenzene concentrations in the groundwater samples were lower than detected xylenes concentrations. Low-level concentrations of benzene and/or toluene were also detected in the groundwater samples collected.

Based on the collective data collected during the 1989 UST removal and in 1994, Landau (1994) concluded the following:

- In 2.5 years of operation, the SVE system had been effective in reducing xylene concentrations in soil located above the water table in the former excavation area;
- Further operation of the SVE system was not warranted since vapor-phase VOC concentrations generated by the system were no longer detectable;
- Residual xylene-contaminated soil may be concentrated on the north side of the former tank excavation area, beneath the adjacent tank pad;
- The downgradient extent of xylene and ethylbenzene in groundwater was defined within approximately 100 feet of the excavation area, and the contamination was not impacting downgradient receptors. Additional groundwater monitoring would be required to demonstrate conclusively that natural attenuation of residual xylene is occurring; and
- More aggressive remedial measures for the xylene release would require removal of operating infrastructure, the cost of which was not warranted because the plume was contained and appeared to be attenuating naturally.

Scott Paper submitted to Ecology the reports prepared by Landau regarding UST No. 29 release identification and independent cleanup activities. Ecology made no determination on sufficiency of the independent cleanup. In 2002, Ecology listed the Facilities Leaking Underground Storage Tank (LUST) ID No. 1627 as inactive.

Round 2 Data Collection

The Round 2 data collection for the combined REC 6/USTs 29, 67 area included (Figure 6):

- Completed two soil borings/monitoring wells within the former USTs 29, 67 excavation footprint: REC6-MW-1, within the footprint of former UST 29 and at the west (downgradient) end of the inferred latex release location, and UST29-MW-1, within the footprint of UST 67 and immediately downgradient of UST 29. The borings were positioned to avoid the numerous subsurface utilities in the immediate area. Both borings encountered the pea gravel backfill of the former excavation;
- Based on field screening information, analyzed one sample of soil beneath the pea gravel backfill from each of the borings: the REC6-MW-1 sample for gasoline-range TPH and VOCs including 1,4-dioxane and vinyl acetate[8], and the UST29-MW-1 sample for VOCs and (to assess presence of residual kerosene) diesel-/oil-range TPH and PAHs;
- Collected a groundwater sample from wells REC6-MW-1 and UST29-MW-1 for analysis of gasoline-range TPH, VOCs, and TSS, adding analysis for formaldehyde[8] in the REC6-MW-1 sample, and analysis for diesel-/oil-range TPH and low-level PAHs in the UST29-MW-1 sample; and

[8] Trace constituents in the latex product released.

- Installed a monitoring well, REC6-MW-2, along the shoreline downgradient (west) of REC 6 and USTs 29, 67, and analyzed the groundwater sample from it for gasoline-range TPH, VOCs, formaldehyde, dissolved priority pollutant metals, SVOCs, ammonia, dissolved sulfide, and TSS.

UST No. 69

Former leaded gasoline UST No. 69 is located generally west (downgradient) of former USTs 29 and 67 (Figure 6). Therefore, we include those downgradient data for assessing extent of contamination associated with UST 29 and REC 6. The Round 2 data collection for UST 69 included completing a new soil boring/monitoring well UST69-MW-1 at the location of the former UST. From the boring, we collected a soil sample from the water table depth interval for analysis of gasoline-range TPH, VOCs, and total lead. The UST69-MW-1 groundwater sample was analyzed for gasoline-range TPH, VOCs including low-level EDB, total and dissolved lead, and TSS.

Assessment Findings

Xylene Release

The Round 2 data confirm that high concentrations of xylene remain in soil and groundwater within the former UST 29 excavation footprint (REC6-MW-1):

- The REC6-MW-1 soil sample contained 9,700 mg/kg gasoline-range hydrocarbons, 2,250 mg/kg total xylenes, 630 mg/kg ethylbenzene, with lower concentrations (below screening levels) of other VOCs. Benzene was not detected in the soil sample or its field duplicate sample (Table 6A).

- The REC6-MW-1 groundwater sample contained 24,000 µg/L gasoline-range hydrocarbons and 8,500 µg/L total xylenes, and lower concentrations (below screening levels) of other VOCs. Benzene was not detected.

Figure 6 depicts the soil and groundwater concentrations exceeding respective screening levels (exceedances of unrestricted soil screening levels) for the REC 6/UST 29, 67 area.

The magnitude of the xylene-related contamination is lower just downgradient of the former UST 29 footprint, at UST29-MW-1:

- The UST29-MW-1 soil sample contained gasoline- and diesel-/oil-range hydrocarbons (150 mg/kg and 2,600 mg/kg, respectively) above soil screening levels based on groundwater protection, but no VOCs above soil screening levels (e.g., 0.2 mg/kg total xylenes, 0.056 mg/kg ethylbenzene). The detected total cPAH concentration (17 mg/kg)[9] exceeds soil screening levels for unrestricted use (0.14 mg/kg) and industrial use (2 mg/kg) (Table 6A). For total cPAHs, the unrestricted soil screening level is based on direct contact, and the industrial soil screening level is based on groundwater protection.

- The UST29-MW-1 groundwater sample contained gasoline-range hydrocarbons and xylenes concentrations (350 and 72 µg/L, respectively) below screening

[9] Note that the PAH analysis for UST29-MW-1 was run on a sample of soil from a depth of 8- to 9-feet, not the 7- to 8-foot depth that the other analyses were conducted, due to sample volume limitations in the soil core recovered.

levels, no detectable diesel-/oil-range hydrocarbons, but a total cPAH (TEQ) concentration (0.026 µg/L) marginally above the 0.018 µg/L screening level based on marine protection (Table 6B). The empirical groundwater data indicate that the residual concentrations of gasoline-range and diesel-/oil-range hydrocarbons in soil at the UST29-MW-1 location are protective of groundwater quality in accordance with MTCA (WAC 173-340-747(9)). The total cPAH soil concentration at UST29-MW-1 exceeds a conservative soil screening level based on groundwater protection, but there is very limited leaching of cPAHs to groundwater, consistent with their low mobility, particularly in organic-rich matrices such as occur in the Upland Area.

Further downgradient, the soil and groundwater samples collected from UST69-MW-1 contained no detectable gasoline-range hydrocarbons or VOCs, confirmed in field duplicate samples (Tables 6A and 6B). The UST 69 data are further discussed in Section 3.8. Likewise, gasoline-range hydrocarbons and VOCs were not detected in the groundwater sample from downgradient shoreline well REC6-MW-2 (Table 6B). REC6-MW-2 is outside the map view of Figure 6, but is shown on Figure 7.

The Round 2 data indicate that the UST29-MW-1 well delineates the downgradient extent of groundwater exceedances associated with the historical xylene release from former UST No. 29. Comparing the Round 2 data against data collected by Landau (1994) indicates that the downgradient extent of groundwater contamination is reduced relative to the 1994 conditions.

Latex Release

Latex product was observed in the REC6-MW-1 and UST29-MW-1 borings, at the bottom of the pea gravel excavation backfill. The latex was not observed in soil beneath the pea gravel, indicating it has migrated from the release location laterally within the permeable backfill, which extends essentially to the western edge of the Paper Machine building.

In the REC6-MW-1 groundwater sample, downgradient of the inferred latex release location and where residual latex is present, formaldehyde was detected at an estimated concentration (29 µg/L) below the reporting limit, and well below the 1,600 µg/L groundwater screening level. The VOCs 1,4-dioxane and vinyl acetate were not detected in the soil or groundwater sample from REC6-MW-1. Formaldehyde, 1,4-dioxane, and vinyl acetate were not detected in the groundwater sample from downgradient shoreline well REC6-MW-2.

The latex released is a component of household paper towels and contains only trace concentrations of formaldehyde, vinyl acetate, and 1,4-dioxane. The Round 2 data indicate that leaching of the residual latex poses negligible risk to groundwater quality.

Data Gaps and Proposed Round 3 Assessment for REC 6/UST 29 Area

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the REC 6, USTs 29, 67, and UST 69 wells, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012). Add analysis for diesel-/oil-range TPH for the REC6-MW-1 groundwater sample.

Opportunistic Interim Action Recommended

Beyond the Round 3 assessment, we recommend planning for an opportunistic interim action removal of xylene-contaminated soil in the UST 29 area, to be conducted in coordination with mill demolition activities, and in accordance with the Interim Action Plan (Exhibit C to forthcoming Agreed Order). An area of xylene-contaminated soil is currently accessible for excavation, but it is probable that the contamination extends beneath the adjacent structures (secondary containment structure immediately north, and Paper Machine building immediately east). The data indicate that residual latex product in the ground is not leaching contaminants to groundwater at concentrations of concern; however, the interim action should also remove residual latex product accumulations to the extent practicable, in accordance with MTCA. We expect that latex product remains in the ground beneath the southwest corner of the Paper Machine Building, including the loading dock there. Therefore, we recommend conducting the opportunistic cleanup after demolition and removal of the surrounding structures.

3.6 REC 7: East Waterway Shoreline

During Rounds 1 and 2 of the independent environmental assessment, 14 monitoring wells have been installed along the East Waterway shoreline to assess potential for groundwater contaminant migration from the Upland Area to the East Waterway marine environment. The 14 shoreline wells, shown on Figure 7, include from north to south: REC7-MW-1, NRP-MW-3, MW-5, NRP-MW-2, REC7-MW-2, REC6-MW-2, MW-6, UST70-MW-2, REC3-MW-1, REC7-MW-3, OMS-MW-1, MW-1, MW-2, and REC7-MW-4. Of the 14 shoreline monitoring wells, four (REC7-MW-1, REC7-MW-2, REC7-MW-3, and REC7-MW-4) were installed in locations between shoreline monitoring wells that were installed for specific areas described in other sections of this Addendum.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 7):

- Sampled groundwater from the 14 shoreline wells for priority pollutant metals, VOCs, SVOCs (which includes phthalates, phenols, benzoic acid, benzyl alcohol, and PAHs), ammonia, and dissolved sulfide, in addition to area-specific analytes for select shoreline wells.

Assessment Findings

During the Round 2 sampling, scattered low-level exceedances for four metals were detected in groundwater samples from the 14 shoreline wells: arsenic above 5 µg/L in two wells, copper above 2.4 µg/L in five wells, nickel above 8.1 µg/L in one well, and zinc above 81 µg/L in one well. In addition, ten of the 14 wells had detected ammonia concentrations above the 0.035 mg/L screening level (any detection above the analytical reporting limit exceeds the stringent screening level). The highest ammonia concentration (15.5 mg/L) was detected at well MW-6, located on the downgradient edge of the Log Pond fill. The ammonia is consistent with the lack of dissolved oxygen in Upland Area groundwater. Figure 7 depicts the distribution of groundwater exceedances in the shoreline wells.

VOCs were not detected in the 14 shoreline groundwater samples. Where analyzed for, TPH was not detected in shoreline groundwater samples; this includes well UST70-MW-

2 located just downgradient of the UST 70 area where a diesel release is documented, and wells MW-5, NRP-MW-2, and NRP-MW-3 just downgradient of the Naval Reserve Parcel USTs area where residual petroleum hydrocarbons are present (refer to Sections 3.9 and 3.11, respectively). The only SVOC detections in the shoreline groundwater samples were low-level PAH concentrations below screening levels. Dissolved sulfide concentrations in the groundwater samples were at or below 3 mg/L, with the exception of the 21.5 mg/L detection at well REC6-MW-2 – a concentration anomalously high enough to suggest the sample was not field filtered (i.e., it is a total sulfide concentration). The detection warrants confirmation in the dry season sampling event.

Proposed Round 3 Assessment for East Waterway Shoreline

No data gaps are identified for this area. The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the REC 3 well, repeating the Round 2 groundwater sampling and analyses as outlined in the Work Plan. Analyses to add, relative to the Round 2 analyses, are diesel-/oil-range TPH for well REC6-MW-1, and gasoline- and diesel-/oil-range TPH for well REC7-MW-4.

3.7 Former USTs No. 68, 68R

Former UST No. 68 was a 250-gallon unleaded gasoline tank removed in 1991. It was not replaced at that time. At the time of Work Plan preparation, we inferred that the location of the replacement 500-gallon unleaded gasoline UST No. 68R was northeast of UST No. 68 (where UST68-MW-1 located; Figure 8). We subsequently obtained information correctly locating UST No. 68R east of the South Office Building, next to the former Bunker C AST area, as depicted on Figure 8. UST No. 68R was removed in 1999. Sections 4.1.3 and 4.1.9 in the Work Plan (Aspect, 2012) provide information regarding removal of the former USTs.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 8):

- Completed one new soil boring/monitoring well (UST68-MW-2) within the footprint of the former UST 68 excavation on the north side of the South Office Building, and a downgradient boring/monitoring well UST68-MW-5;
- Completed one new soil boring/monitoring well (UST68-MW-1) within the previously inferred footprint of the former UST 68R northeast of the South Office Building, and a downgradient boring/monitoring well UST68-MW-4;
- During drilling of the planned downgradient well UST68-MW-3, the drill rig penetrated a pressurized fire water line. The pressurized water damaged the pavement and created a hole at the rupture location, preventing completion of drilling there. The UST68-MW-3 well was therefore not completed pending review of results from the surrounding wells;
- Based on field screening information, analyzed one soil sample from each of the four borings for gasoline-range TPH and VOCs; and

- Collected a groundwater sample from the four monitoring wells for analysis of gasoline-range TPH, VOCs, low-level EDB, and TSS. Shoreline monitoring wells MW-1 and MW-2, installed for characterization of REC 2, provide additional groundwater quality data downgradient of UST 68 (Figure 8).

Assessment Findings

Detected hydrocarbon concentrations in soil and groundwater at the location of former UST 68 (UST68-MW-2), and generally downgradient of it (UST68-MW-4, UST68-MW-5, MW-1, MW-2), are below respective screening levels.

Within the former UST 68 excavation location (gravel backfill observed), a moderate petroleum odor and sheen and detection on the photoionization detector (PID) was observed in the 10- to 12-foot depth interval; however, gasoline-range TPH was detected at only 4.9 mg/kg, well below the unrestricted soil screening level, in the soil sample from that depth interval. VOCs, including BTEX, were not detected in the soil sample (Table 8A). Therefore, the appropriate unrestricted soil screening level for gasoline-range TPH in this area is 100 mg/kg, in accordance with MTCA.

Gasoline-range TPH and VOCs were not detected in samples of saturated soil (beneath water table) collected from borings UST68-MW-4 and UST68-MW-5 (Table 8A), and MW-1 and MW-2 (Table 3A).

Gasoline-range TPH and VOCs were not detected in groundwater samples collected from well UST68-MW-2 in the excavation footprint, or downgradient wells UST68-MW-4 and UST68-MW-5 (Table 8B), and MW-1 and MW-2 (two rounds of data; Table 3B).

Gasoline-range TPH and VOCs were not detected in soil and groundwater samples collected from UST68-MW-1; however, it is not in the location of former UST 68R.

The Round 2 data indicate that residual gasoline-related groundwater contamination observed in 1991 (Landau, 1991; refer to Section 4.1.3 of Aspect, 2012) has attenuated to below screening levels.

Proposed Round 3 Assessment for UST 68, 68R Area

The lack of characterization of the former UST 68R location, now correctly located, remains a data gap to be addressed. The proposed Round 3 data collection for this area includes the following:

- Install a new monitoring well UST68-MW-6 at the correct location of former UST 68R (Figure 8). Based on field screening information, analyze one soil sample from the boring for gasoline-range TPH and VOCs. Analyze the groundwater sample from the well for gasoline-range TPH, VOCs, and TSS; and

- Conduct the dry-season groundwater sampling and analysis event for UST68-MW-2, -4, and -5, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012). The incorrectly located UST68-MW-1 will not be re-sampled.

3.8 Former UST No. 69

UST No. 69 was a 260-gallon leaded gasoline tank removed in 1989 (refer to Section 4.1.1 in Aspect, 2012) (Figure 6). The data for this area are discussed in Section 3.5, in

connection with the upgradient former UST 29. Former UST No. 69 is a distinct area for assessment, and the data are briefly reiterated here.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 6):

- Completed a new soil boring/monitoring well (UST69-MW-1) on the west (downgradient) side of former UST No. 69. From the boring, collected a soil sample from the water table depth interval for analysis of gasoline-range TPH, VOCs, and total lead; and
- Collected a groundwater sample from the well for analysis of gasoline-range TPH, VOCs including low-level EDB, total and dissolved lead, and TSS.

Assessment Findings

No field screening evidence of petroleum was observed during drilling of UST69-MW-1, and the soil and groundwater data collected from UST69-MW-1 are consistent with that observation. Gasoline-range TPH and VOCs were not detected in soil or groundwater samples, and lead was detected in the soil sample at 2.9 mg/kg, well below the 250 mg/kg unrestricted soil screening level (soil data in Table 6A; groundwater data in Table 6B).

Proposed Round 3 Assessment for Former UST No. 69

No data gaps are identified for this area. The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well UST69-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

3.9 Former USTs No. 70, 70R

Former UST No. 70 was a 1,000-gallon diesel storage tank removed in 1989 (Figure 9A). Former UST No. 70R was a 2,000-gallon diesel UST installed in the same location in 1989; it was a double-walled tank with cathodic protection and electronic overflow sensor, and was subsequently removed in 1995. Landau (1991) documented diesel contamination in the area of the former USTs (refer to Section 4.1.3 of Aspect, 2012), which warranted assessment to document current conditions.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 9A):

- Advanced and sampled soil from four soil borings (UST70-B-1 through -4) within the area of former USTs No. 70/70R as located from Landau (1991), in addition to one boring/monitoring well (UST70-MW-2) along the shoreline due west of the former USTs location. Based on field screening information, analyzed soil samples from each of the five borings for diesel-/oil-range TPH, PAHs, and, because the former USTs were within the hog fuel area where waste solvents were reportedly disposed of, VOCs;
- Based on the field screening during drilling of the four borings, completed monitoring well UST70-MW-1 immediately downgradient of the location with

highest apparent TPH soil concentrations. Also completed the shoreline boring UST70-MW-2 as a monitoring well; and

- Analyzed a groundwater sample from new wells UST70-MW-1 and UST-70-MW-2 for diesel-/oil-range TPH, VOCs, low-level PAHs, and TSS. The groundwater sample from shoreline well UST70-MW-2 was also analyzed for priority pollutant metals, SVOCs, ammonia, and dissolved sulfide.

Assessment Findings

A diesel-range TPH concentration (12,300 mg/kg) was detected in the 3- to 4-foot soil sampling from boring UST70-B-1, which, based on observed pea gravel in the upper few feet, is within the former UST location. Field screening information indicates diesel contamination extending between depths of about 3 and 12 feet in the boring. TPH was not detected in the 13.5- to 14.5-foot soil sample from UST70-B-1. At boring UST70-B-2 to the south of UST70-B-1, TPH was detected in the 9- to 10-foot sample at a concentration (570 mg/kg) below the unrestricted soil screening level. TPH was not detected in soil samples from UST70-B-3 and UST70-B-4. Detected soil concentrations of PAHs and VOC were below unrestricted soil screening levels (Table 9A). Figure 9A depicts the TPH soil data, with exceedances highlighted, for the UST 70/70R area. Note that the soil sample depths are relative to former grade prior to removal of several feet of hog fuel that occurred subsequent to the Round 2 data collection.

Petroleum-related concentrations in groundwater samples from the two wells were below respective screening levels. TPH was detected in the groundwater sample from well UST70-MW-1, located immediately downgradient of UST70-B-1, at a concentration (179 µg/L[10]) below the 500 µg/L groundwater screening level. TPH was not detected in groundwater at downgradient shoreline well UST70-MW-2. PAH and VOC concentrations in both wells were below screening levels (Table 9B). Despite the elevated soil TPH concentrations at UST70-B-1, only limited TPH leachability is indicated by the immediately downgradient UST70-MW-1 groundwater data. Figure 9B depicts the TPH, naphthalene, and total cPAH groundwater data for this area.

The groundwater metals exceedances detected at shoreline well UST70-MW-2 (arsenic, zinc, ammonia) are consistent with groundwater exceedances observed elsewhere in the Upland Area, and are attributable to the reducing groundwater conditions in the fill. The groundwater sample from shoreline well UST70-MW-2 contained a dissolved arsenic concentration (5.23 µg/L) marginally above the 5 µg/L screening level, and a dissolved zinc concentration (116 µg/L) above the 81 µg/L screening level. The detected ammonia concentration (0.575 mg/L) exceeds the 0.035 mg/L screening level. The only SVOCs detected in the groundwater sample were the non-carcinogenic PAHs acenaphthene and naphthalene, at concentrations well below respective screening levels. Dissolved sulfide was not detected in the sample (Table 9B). Figure 7 depicts the groundwater exceedances detected at well UST70-MW-2 and the other shoreline wells.

[10] Sum of diesel + oil-range TPH concentrations, including ½ the detection limit concentration for non-detected values.

Proposed Round 3 Assessment for USTs 70, 70R Area

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for the UST 70/70R wells, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

Opportunistic Interim Action Recommended

Beyond the Round 3 assessment, we recommend planning for an opportunistic interim action removal of diesel-contaminated soil in the UST 70/70R area, to be conducted in coordination with mill demolition activities, and in accordance with the Interim Action Plan (Exhibit C to forthcoming Agreed Order). The available data indicate that the soil contamination extent should be relatively localized around the location of the former UST. Soil excavation will reveal the extent of contamination most accurately, such that additional time and money would be better spent removing contaminated soil, rather than further investigation, in our opinion. Excavation would start at the UST70-B-1 location, and extend laterally and vertically until soils containing TPH concentrations above 2,000 mg/kg are removed to the extent practicable, as confirmed by excavation soil verification sampling and analysis.

3.10 Former USTs No. 71, 72, and 73

Former USTs 71, 72, and 73 were reportedly railroad cars used as Bunker C oil USTs (approximately 12,000-gallon capacity each), which were removed in 1989. Landau (1991) documented Bunker C contamination in the area of the former USTs (refer to Section 4.1.3 of Aspect, 2012), which warranted assessment to document current conditions.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 10):

- Advanced and sampled soil from four soil borings (UST71-B-1 through UST71-B-4) within the area of former USTs No. 71/72/73 as located from Landau (1991). Based on field screening information, analyzed soil samples from each of the four borings for diesel-/oil-range TPH and PAHs, and, because the former USTs were within the hog fuel area where waste solvents were reportedly disposed of, VOCs;
- Based on the field screening during drilling of the four borings, completed monitoring well REC71-MW-1 immediately downgradient of the area with highest apparent TPH soil concentrations; and
- Analyzed a groundwater sample from well UST71-MW-1 for analysis of diesel-/oil-range TPH, VOCs, low-level PAHs, and TSS.

Assessment Findings

During drilling of the Round 2 borings, Bunker C soil contamination was evident to depths greater than 20 feet – well below the water table - within the area of the former USTs, which is consistent with the former tanks (railroad cars) extending to substantial depths below grade. Note that the drilling and soil sample depths are relative to former

grade prior to removal of several feet of hog fuel that occurred subsequent to the Round 2 data collection.

Bunker C-saturated soil adjacent to the former tanks is reflected by detected TPH soil concentrations above 30,000 mg/kg detected in borings UST71-B-2 (38,000 mg/kg in 13- to 14-foot sample), UST71-B-3 (36,000 mg/kg in 18- to 19-foot sample), and UST-B-4 (32,000 mg/kg in 12.5- to 13.5-foot sample). In borings UST71-B-3 and UST71-B-4, TPH was not detected in soil samples collected from depths of 19 to 20 feet and 28 to 29 feet, respectively. TPH was not detected in boring UST71-B-1, located on the north side of the former tanks. Soil PAH concentrations above unrestricted and industrial soil screening levels occur in association with elevated Bunker C concentrations. VOC concentrations in the soil samples were below screening levels (Table 10A). Figure 10A depicts the TPH soil data, with exceedances highlighted, for the UST 71/72/73 area. Again, the reported soil sample depths are several feet deeper than current conditions following removal of the hog fuel accumulation.

The groundwater sample collected from well UST71-MW-1, located immediately downgradient of the Bunker C-saturated soil, was turbid (TSS = 110 mg/L) despite extended well development, and contained Bunker C and cPAH concentrations (1,180 µg/L and 0.44 µg/L, respectively) above respective groundwater screening levels. VOC concentrations in the groundwater sample were below respective screening levels (Table 10B). Figure 10B depicts the TPH groundwater data, with exceedances highlighted, for this area. The downgradient extent of groundwater contamination is limited, with downgradient wells UST70-MW-1 and shoreline wells UST70-MW-2 and REC3-MW-1 showing no petroleum-related concentrations above groundwater screening levels (see Tables 9B and 4B).

Proposed Round 3 Assessment for USTs 71, 72, 73 Area

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well UST71-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

Opportunistic Interim Action Recommended

Beyond the Round 3 assessment, we recommend planning for an opportunistic interim action removal of Bunker C-contaminated soil in the UST 71, 72, 73 area, to be conducted in coordination with mill demolition activities, and in accordance with the Interim Action Plan (Exhibit C to forthcoming Agreed Order). The available data indicate that the soil contamination extent should be relatively localized around the location of the former USTs, and time and money would be better spent removing contaminated soil, rather than further investigation, in our opinion. Excavation would start within the area of known soil contamination (UST71-B-2, -3, and -4 locations), and extend laterally and vertically until soils containing TPH concentrations above 2,000 mg/kg are removed to the extent practicable, as confirmed by excavation soil verification sampling and analysis.

3.11 HREC 2: Naval Reserve Parcel

The Naval Reserve Parcel includes two distinct areas of contamination where the Navy reportedly completed cleanup: an area of petroleum contamination associated with former USTs near the shoreline, and an area of metals contamination in shallow soil at a former Firing Range farther inland, as described in Section 4.1.6 of Aspect (2012). Subsequent to preparation of the Work Plan, we obtained the Navy's 1998 report for their cleanup of the Naval Reserve Parcel, which is summarized below.

3.11.1 Updated Historical Information regarding Navy's Independent Cleanup of Naval Reserve Parcel

Foster Wheeler (1998) documents the Navy's independent cleanup of the former Naval Reserve Parcel as part of the land exchange with K-C. According to the report, the Naval Reserve Center was commissioned in 1949 and served as the administrative and operations for local naval reserve activities. From 1949 to about 1981, naval vessels regularly docked at the Naval Reserve Center dock, which remains in place. The Naval Reserve Center included a combined garage/shop, boiler room, and diesel generator room (Building 1), and to the east a Firing Range (Building 2). Two diesel USTs (5,000 gallon Tank 1 and 3,000 gallon Tank 2) were located immediately south of the boiler room, and supplied fuel for the steam boiler and electrical generator.

The two diesel USTs were removed in July 1996. A hole was observed in Tank 1 during its removal. No visible flaws were documented for Tank 2 during its removal. Following removal of the USTs, Foster Wheeler collected confirmation soil samples from the excavation. Diesel-range TPH soil contamination was detected within the excavation around each of the tanks, with detected TPH concentrations up to 16,000 mg/kg.

Based on that first round of confirmation sampling, the excavation pits were over-excavated and sampled again. The excavation depth was approximately 12 feet, extending below the water table. In addition to the tank pits, and exploratory test pit was excavated and sampled approximately 5 feet south of the southern excavation limit. The inferred location of the final excavation limit, based on unscaled maps in the report, is shown on Figure 11A. The petroleum-contaminated soil was removed from the site for thermal desorption.

Following over-excavation, a second round of excavation verification soil samples indicated residual diesel contamination present on the excavation bottom and south of the excavation. Diesel-range TPH was detected at 42,000 mg/kg in the sample of soil from bottom of the excavation near its center (sample A). TPH was not detected in samples B, D, and E collected on the south, north, and west sidewalls, respectively, of the excavation. Sample C, on the east sidewall contained 260 mg/kg diesel-range TPH.

Three soil samples (AA, BB, CC) were collected from different depths in the exploratory test pit just south of the excavation. Detected diesel-range TPH was not detected in the 5-foot sample, but was detected at concentrations of 53,000 mg/kg and 7,000 mg/kg in the 7.5-foot and 9-foot soil samples, respectively.

According to the report, "groundwater and pilings driven randomly spaced at about 8-feet bgs impeded further excavation; therefore, soil excavation was suspended and the pits

backfilled with pea gravel to approximately 1 foot above groundwater. The remainder of the excavations were filled to grade with clean backfill material."

The report also states that additional TPH-contaminated soil identified beneath the former boiler room was removed, but does not provide location information or verification soil sample data for the excavation. Likewise, the report states that 15 cubic yards of lead-contaminated soil was removed from beneath the former Firing Range building, but does not provide location information or verification soil sample data for the excavation.

In August 1997 through October 1998, following demolition of the facility structures, Foster Wheeler conducted characterization soil sampling and analysis from the former USTs area, adjacent bilge water tank location and flammable material storage shed, and the former Firing Range area. Twenty four drilled soil borings (BOR-1 through -24) were advanced to depths of approximately 10 feet in the Building 1 area to characterize soil quality around the USTs, former bilge water tank location, and flammable material storage shed. Four additional hand-augered borings (FMS-1 through -4) were also sampled to depths of 1.25 feet around the flammable material storage shed. Twenty one hand-augered borings (FFR-1 through -21) were sampled to depths of 3 feet at the former Firing Range. The first 14 borings were sampled in September 1997, and the last seven in October 1997; the report presents locations only for the first 14 of them.

Following soil removal and site restoration, two monitoring wells were installed in the most contaminated areas to monitor groundwater quality as a reflection of the soil removal effectiveness. The wells were identified as North Well and South Well, but the report does not present locations for them. The January 1998 groundwater samples collected from the two wells contained no detectable TPH or BTEX, and concentrations of the PAHs acenaphthene, fluorene, and naphthalene (up to 4 µg/L) were below respective screening levels applied in this environmental assessment. Based on the June 21, 1999, report transmittal letter from the Navy to K-C, the wells were decommissioned.

The Round 2 data collection, assessment results, and proposed Round 3 assessment activities are discussed below - separately for the former USTs area and the former Firing Range area.

3.11.2 Former USTs Area

Following preparation of the Work Plan (Aspect, 2012) and based on review of the Foster Wheeler (1998) report described above, the locations for two of the Round 2 soil borings in the former USTs Area (NRP-B-2 and NRP-B-7) were adjusted southward to provide better coverage of the area south of the former excavation. The excavation extent was inferred from the unscaled maps in Foster Wheeler (1998).

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 11A):

- Advance and sampled soil from nine soil borings (NRP-B-1 through -5, NRP-B-7, and NRP-B-8, NRP-MW-2, and NRP-MW-3). Boring NRP-B-6 encountered 4 feet of gravel, probable excavation backfill, and then encountered refusal; the same conditions were encountered in another attempt a few feet away. Based on field screening information, analyzed soil samples from each boring for gasoline-, diesel-/oil-range TPH, VOCs, PAHs, and priority pollutant metals;

- Based on the field screening during drilling of borings NRP-B-1 through -8, completed monitoring well NRP-MW-1 at the location with highest apparent TPH soil concentrations;
- Completed two monitoring wells along the shoreline: NRP-MW-2 downgradient (west) of the former USTs and NRP-MW-3 near where soil mercury was reported at 14 mg/kg (below screening level); and
- Collected a groundwater sample from the three new monitoring wells plus previously installed well MW-5 for analysis of gasoline- and diesel-/oil-range TPH, VOCs, low-level PAHs, dissolved priority pollutant metals, and TSS. Groundwater samples from the shoreline wells MW-5, NRP-MW-2 and NRP-MW-3 were also analyzed for SVOCs, ammonia, and dissolved sulfide.

Assessment Findings

The Round 2 soil data confirmed soil TPH exceedances at the two locations on the south end of the former excavation, but at lower concentrations than those reported from the 1997 samples (Foster Wheeler, 1998).

The 8- to 10-foot soil sample from the southernmost boring, NRP-B-2, had the highest TPH concentration detected in the Round 2 samples (4,400 mg/kg gasoline-range), exceeding the 100 mg/kg soil screening level for unrestricted and industrial use. In addition, the sample contained 1,580 mg/kg oil-range TPH, below the screening level. The chromatogram for the TPH analyses suggests the presence of two different petroleum products: weathered gasoline and heavy (lube) oil. The 14- to 15-foot sample from boring NRP-B-2 had no detectable TPH (Table 11A).

The 9- to 10-foot soil sample from boring NRP-B-7 contained gasoline-range TPH (120 mg/kg) and total cPAHs (17 mg/kg) above respective soil screening levels for unrestricted and industrial use. The detected concentration of diesel- + oil-range TPH (1,540 mg/kg) was below the 2,000 mg/kg screening level. The sample chromatogram suggests a creosote-like product, not a fuel, which is consistent with the high PAH concentrations detected. Petroleum-like sheen was visible in the soil core to a depth of about 17 feet in boring NRP-B-7. The 19- to 20-foot soil sample had no detectable TPH (Table 11A).

No soil metals exceedances, and no detectable mercury, were detected in the soil sample from NRP-B-1, located in the area of prior reported soil mercury detection adjacent to the former flammable materials storage shed.

Figure 11A depicts the TPH soil data, with exceedances highlighted, for the former USTs Area of the Naval Reserve Parcel.

Groundwater samples from the four USTs Area monitoring wells MW-5, NRP-MW-1, NRP-MW-2, and NRP-MW-3 contained concentrations of petroleum-related compounds - TPH, cPAH, and VOCs – below respective screening levels (Table 11B). Gasoline-range hydrocarbons were detected at the analytical reporting limit (100 µg/L) in well NRP-MW-1, located adjacent to the highest soil hydrocarbon concentrations detected in the Round 2 soil sampling (at NRP-B-2). The detected low groundwater hydrocarbon concentrations are consistent with groundwater data reported in Foster Wheeler (1998).

Figure 11B depicts the TPH, naphthalene, and total cPAH data for groundwater samples in this area.

The Round 2 groundwater dissolved copper exceedance detected at shoreline well MW-5 (5.2 µg/L) confirms the Round 1 result (7.09 µg/L dissolved copper; Table 11B). No other metals exceedances were detected in the four groundwater samples, including in well NRP-MW-3 located adjacent to the former flammable materials storage location. No SVOC concentrations exceeded groundwater screening levels. The ammonia concentrations detected in the four wells exceeded the screening level, and showed considerable variability (0.38 mg/L at NRP-MW-2 to 11.3 mg/L in NRP-MW-3 located 50 feet away). Dissolved sulfide concentrations ranged from non-detect at NRP-MW-3 to 3.0 mg/L at MW-5 (Table 11B). Groundwater exceedances for these wells are shown on Figure 7, along with the other shoreline wells.

Data Gaps and Proposed Round 3 Assessment for Former USTs Area of Naval Reserve Parcel

The extent of soil hydrocarbon contamination in the southern portion of the area, and at the bottom of the former UST excavation, is a data gap warranting additional delineation. The proposed Round 3 data collection for this area includes the following:

- Advance and sample soil from six additional soil borings, NRP-B-17 through -22; NRP-B-17 through -21 will be advanced in the area of detected exceedances, while NRP-B-22 will be advanced in the approximate center of the inferred excavation area (Figure 11A). Based on field screening information, analyze up to three soil samples from each boring for gasoline- and diesel-/oil-range TPH, VOCs, and PAHs; and

- Conduct the dry-season groundwater sampling and analysis event for wells MW-5, NRP-MW-1, -2, and -3, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

Based on the collective data available after Round 3, and the information regarding prior excavation in this area (Foster Wheeler, 1998), K-C will assess whether to conduct an opportunistic interim action removal of residual hydrocarbon-contaminated soil in this area.

3.11.3 Former Firing Range Area

The soil sampling and analysis proposed in the Work Plan (Aspect, 2012) provided spatial coverage of the former Firing Range area, since at the time there was no information available regarding removal of shallow metals-contaminated soil there. Because the Foster Wheeler (1998) report provides no specific information regarding location of the soil removal completed, no changes were made to the sampling program defined in the Work Plan.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 11C):

- Advanced and sampled soil from depths of 0 to 1 and 3 to 4 feet in eight soil borings (NRP-B-9 through -16) for analysis of priority pollutant metals; and

- Completed monitoring wells NRP-MW-4 and NRP-MW-5 along the downgradient (western) edge of the inferred metals-contaminated area, and analyzed groundwater samples from them for dissolved and total priority pollutant metals and TSS.

Assessment Findings

Two of 16 shallow soil samples had low-level arsenic exceedances (35 and 22 mg/kg in 0- to 1-foot samples from NRP-B-10 and -15, respectively). No other metals concentrations exceeded soil screening levels (Table 11A). Figure 11C depicts the detected soil exceedances for this area. No field screening evidence of petroleum was observed during drilling in this area; therefore, petroleum-related analyses were not conducted for the soil samples, in accordance with the Work Plan.

One of the two wells, NRP-MW-4, had a detected exceedance for total copper (9.2 µg/L); the dissolved copper concentration (1.09 µg/L) was below the 2.4 µg/L screening level. No other metals concentrations exceeded groundwater screening levels in either well (Table 11B).

Proposed Round 3 Assessment for Former Firing Range Area of Naval Reserve Parcel

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for wells NRP-MW-4 and -5, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

3.12 Log Pond Fill Area

The Round 1 assessment included sampling and analysis of fill soil beneath the wood chips at six locations within the Log Pond Fill Area (borings DP-18 through -22, and MW-6), and installation and groundwater sampling of shoreline well MW-6, located at the downgradient edge of the area (Figure 12). The Round 2 data collection for this area included:

Sampled groundwater from shoreline well MW-6 for analysis of gasoline-range TPH, diesel-/oil-range TPH, VOCs, low-level PAHs, total and dissolved priority pollutant metals, SVOCs, ammonia, dissolved sulfide, and TSS.

Assessment Findings

Detected concentrations of gasoline-range TPH, diesel-/oil-range TPH, BTEX, metals, SVOCs, and PCBs in the six Round 1 samples of Log Pond Fill soil were below unrestricted soil screening levels (Table 12A).

Low-level arsenic and copper exceedances were detected in the Round 1 and Round 2 groundwater samples from well MW-6 (5.2 and 6.38 µg/L arsenic; 4.14 and 3.85 µg/L copper[11]). The metals concentrations are attributable to the reducing groundwater conditions in the fill. The Round 2 groundwater sample from MW-6 contained no detectable TPH, VOCs, SVOCs including PAHs, or dissolved sulfide. The 15.5 mg/L

[11] The higher of dissolved or total concentrations are listed for the Round 2 sample. Table 12B provides the complete data.

ammonia concentration is the highest detected at the Upland Area shoreline wells (Table 12B). Figure 12 depicts the groundwater exceedances for well MW-6, and Figure 7 displays the groundwater exceedances for it and the other shoreline wells.

Proposed Round 3 Assessment for Log Pond Fill Area

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well MW-6, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

Additional soil sampling and analysis will also be conducted within the Log Pond Fill to delineate soil metals concentrations adjacent to the Hazardous Waste Cage, as discussed in Section 3.17.

3.13 Acid Plant

Potential acidic releases from the Acid Plant can leach metals from equipment, piping, etc., and/or potentially leach naturally occurring metals from soils. The assessment evaluated groundwater pH and metals within the Acid Plant as an indicator of potential acidic releases.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 13):

- Advanced boring AP-MW-1 at an accessible location on the edge of the Acid Plant tank farm, sampled soil from it at depths of 1 to 2 feet and just below the water table, and analyzed the soil samples for priority pollutant metals and soil pH; and
- Collected a groundwater sample from the well for analysis of total and dissolved priority pollutant metals and TSS. Groundwater pH is a field parameter measured for each groundwater sample collected.

Assessment Findings

The soil and groundwater sampling from AP-MW-1 provides no indication for acidic release. Soil pH and groundwater pH were both near neutral (soil pH of 7.4 to 7.5; groundwater pH of 7.2). Metals concentrations detected in the soil and groundwater samples were below respective screening levels. The soil and groundwater quality data for this area are presented in Tables 13A and 13B, respectively.

There was no field screening evidence of petroleum contamination during drilling of AP-MW-1, therefore the soil and groundwater samples were not analyzed for petroleum-related compounds, in accordance with the Work Plan.

Proposed Round 3 Assessment for Acid Plant

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well AP-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

3.14 Central Maintenance Shop

A variety of hazardous materials may have historically been used in the Central Maintenance Shop/Old Auto Shop; therefore, assessment of soil and groundwater quality at the existing shop was conducted as part of the assessment.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 14):

- Cored through the concrete floor of the shop and advanced by hand auger three soil borings to depths of 3 feet (CMS-B-1 through -3). From each boring, collected soil samples from depths of 0 to 1 and 2 to 3 feet for analysis of gasoline-range TPH, diesel-/oil-range TPH, VOCs, PAHs, priority pollutant metals, and PCBs; and
- Completed monitoring well CMS-MW-1 immediately downgradient (west) of the shop, and analyzed the groundwater sample from it for gasoline-range TPH, diesel-/oil-range TPH, low-level PAHs, VOCs, total and dissolved priority pollutant metals, and TSS.

Assessment Findings

Detected concentrations of TPH, VOCs, PAHs, and metals were below unrestricted soil screening levels in each of the six soil samples. Total PCB concentrations above the 1 mg/kg unrestricted soil screening level but below the 10 mg/kg industrial soil screening level were detected in soil samples from two of three borings (Table 14A):

- 2.15 mg/kg in 0- to 1-foot sample from CMS-B-2. The 2- to 3-foot sample had a concentration (0.85 mg/kg) below the unrestricted soil screening level; and
- 2.55 mg/kg and 2.15 mg/kg in 0- to 1-foot and 2- to 3-foot samples, respectively, from CMS-B-3.

For this assessment, total PCBs are calculated using one half the reporting limit for non-detected Aroclors, as the MTCA default. Only Aroclors 1254 and 1260 are detected in the samples. If site-wide data demonstrate the absence of certain Aroclors, the total PCB summation can be adjusted to include only detected Aroclors.

The groundwater sample from CMS-MW-1 contained detected concentrations of diesel-/oil-range TPH (735 µg/L), naphthalene (200 µg/L), and total cPAH (TEQ) (0.04 µg/L) above respective screening levels. Review of the TPH chromatogram, in combination with the high naphthalene to petroleum ratio, suggests a creosote source, not fuel source. Figure 14 depicts the soil and groundwater exceedances for this area.

Proposed Round 3 Assessment for Central Maintenance Shop

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well CMS-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

During demolition, PCBs in soil beneath the shop will be delineated and cleaned up opportunistically, as warranted.

3.15 Old Machine Shop

As with the Central Maintenance Shop, a variety of hazardous materials may have historically been used in the Old Machine Shop; therefore, assessment of soil and groundwater quality at the existing shop was conducted as part of the assessment.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 15):

- Cored through the concrete floor of the shop and advanced by hand auger three soil borings to depths of 3 feet (OMS-B-1 through -3). From each boring, collected soil samples from depths of 0 to 1 and 2 to 3 feet for analysis of gasoline-range TPH, diesel-/oil-range TPH, VOCs, PAHs, priority pollutant metals, and PCBs; and
- Completed monitoring well OMS-MW-1 downgradient (south) of the shop, and analyzed the groundwater sample from it for gasoline-range TPH, diesel-/oil-range TPH, low-level PAHs, VOCs, dissolved priority pollutant metals, SVOCs, ammonia, dissolved sulfide, TSS.

Assessment Findings

Detected concentrations of TPH and VOCs were below unrestricted soil screening levels in each of the six soil samples. Detected concentrations of total cPAHs (0.46 mg/kg) and lead (378 mg/kg) in the 2- to 3-foot soil sample from OMS-B-3 were above their respective unrestricted soil screening levels but below industrial soil screening levels. Total PCB concentrations above the 1 mg/kg unrestricted soil screening level were detected in both soil samples from boring OMS-B-3 (1.4 and 2.2 mg/kg); both were below the 10 mg/kg industrial soil screening level. Only Aroclor 1254 was detected in the samples (Table 15A). Figure 15 depicts the soil exceedances for this area.

The groundwater sample from OMS-MW-1 contained no detected concentrations above respective groundwater screening levels (Table 15B). Well MW-1, installed to characterize REC 2, is also positioned downgradient of the east end of the Old Machine Shop[12], and had a dissolved copper concentration (2.56 µg/L) marginally above the 2.4 µg/L groundwater screening level (Section 3.2). Figure 15 depicts the groundwater exceedances for this area, including surrounding wells.

Proposed Round 3 Assessment for Old Machine Shop

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for well CMS-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

During demolition, PCBs in soil beneath the shop will be delineated and cleaned up opportunistically, as warranted.

[12] Computer servers were housed in the east end of the Old Machine Shop, thus the building name reference to “MIS” which standards for Manufacturing Information Services.

3.16 Boiler/Baghouse Area

Biomass including wood chips and hog fuel, and reportedly other materials including scrap rubber and solvents, were historically burned in the boilers. Therefore, the assessment included soil sampling and analysis for dioxins/furans, metals, SVOCs, and VOCs.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 16):

- Advanced and sampled soil from five hand-augered soil borings (Boiler-B-1 through -5) positioned around the collective perimeter of the existing Boiler No. 10, Boiler No. 14, No. 7, 8, 9 Old Boiler, Fly Ash Clarifier, and Baghouse structures. From each boring, collected one soil sample from a depth of 1 to 2 feet for analysis of VOCs, SVOCs, priority pollutant metals, and dioxins/furans. Also analyzed the Boiler-B-3 sample for diesel-/oil-range TPH based on the presence of petroleum in the sample.

Assessment Findings

No exceedances of unrestricted soil screening levels were detected in soil samples Boiler-B-4 and Boiler-B-5 on the north end of the area. Detected constituent concentrations exceeding unrestricted soil screening levels in soil samples Boiler-B-1, Boiler B-2 and Boiler-B-3, on the south side of area, are as follows (Table 16):

- At Boiler-B-1, near the southeast corner of the area, the detected 33.6 mg/kg soil arsenic concentration exceeds the 20 mg/kg unrestricted (and industrial) soil screening level;

- At Boiler-B-2, at the east edge of the Baghouse, the detected soil lead concentration of 1,870 mg/kg exceeded the unrestricted screening level and the 1,000 mg/kg industrial screening level. In addition, the detected total cPAH concentration of 0.276 mg/kg was above the unrestricted screening level but below the industrial screening level. The detected dioxins/furans concentration in the sample, expressed as Total 2,3,7,8-TCDD (TEQ) (hereafter termed TCDD (TEQ)), was 2.69×10^{-5} mg/kg (27 ng/kg), above the 1.1×10^{-5} mg/kg (11 ng/kg) unrestricted soil screening level and below the 1.5×10^{-3} mg/kg (1,500 ng/kg) industrial screening level. Although above the unrestricted soil screening level, the detected concentration is below urban background TCDD (TEQ) concentrations measured in residential neighborhoods within Bellingham (up to 3.5×10^{-5} mg/kg; Ecology and Environment, 2002) and Seattle (90^{th} percentile concentration of 4.6×10^{-5} mg/kg; Ecology, 2011).

- At Boiler-B-3, near the southwest corner of the area, Bunker C-saturated soil (108,000 mg/kg oil-range TPH; 32 mg/kg total cPAH) was encountered to the 2-foot depth of exploration. In addition, the detected lead concentration (342 mg/kg) is above the unrestricted soil screening level but below the industrial screening level. The detected TCDD (TEQ) concentration was 1.76×10^{-5} mg/kg (18 ng/kg), above the 1.1×10^{-5} mg/kg (11 ng/kg) unrestricted soil screening level, below the 1.5×10^{-3} mg/kg (1,500 ng/kg) industrial screening level, and

below urban background concentrations as described above for sample Boiler-B-2.

Figure 16 depicts the soil exceedances for the Boiler/Baghouse Area.

Data Gaps and Proposed Round 3 Assessment for Boiler/Baghouse Area

Remaining data gaps for the Boiler/Baghouse Area include determining the extent of soil lead exceedances around the Boiler-B-2 location, and the extent of petroleum and lead exceedances around the Boiler-B-3 location.

The proposed Round 3 data collection for this area includes the following (Figure 16):

- Sample soil at depths of 0 to 1 foot and 2 to 3 feet from three hand-augered borings (Boiler-HA-2A, -2B, and -2C) around Boiler-B-2 for analysis of lead, arsenic, TPH-Dx, and PAHs; and
- Drill and sample soil from three borings around Boiler-B-3 (Boiler-B-3A, -3B, and Boiler-MW-1). Collect soil samples from each at depths of 1 to 2 feet, 4 to 5 feet, and at the water table observed during drilling, unless other depths are warranted based on field screening. Analyze the soil samples for diesel-/oil-range TPH, PAHs, and priority pollutant metals. Complete Boiler-MW-1 as a monitoring well, and collect a groundwater sample from it for analysis of diesel-/oil-range TPH, low-level PAHs, dissolved priority pollutant metals, and TSS.

Additional shallow soil samples will also be collected for metals analysis within the footprint of the Old Boiler House to further characterize REC 5 (Section 3.4) (proposed samples also shown on Figure 16).

3.17 Hazardous Waste Cage

Sampling and analysis around the current hazardous waste cage was added after finalization of the Work Plan (Aspect, 2012).

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 17):

- Sampled soil from borings on three sides of hazardous waste cage: HW-B-1, HW-B-2, and HW-MW-1. The east side is a below-grade concrete containment structure and not currently accessible for drilling. Analyzed the soil samples for VOCs, SVOCs, priority pollutant metals, and PCBs; and
- Completed immediately downgradient well HW-MW-1 and analyzed the groundwater sample from it for VOCs, low-level PAHs, dissolved priority pollutant metals, and TSS.

Assessment Findings

Lead was detected in the 3- to 4-foot sample from HW-MW-1 at a concentration (303 mg/kg) above the unrestricted soil screening level and below the industrial screening level. The detected lead concentrations in the shallower and deeper soil samples from the boring were 198 and 115 mg/kg, respectively. In addition, the 0- to 1-foot soil sample from HW-MW-1 contained an arsenic concentration (20.6 mg/kg) marginally above the

unrestricted and industrial soil screening level. The detected total cPAH concentration in 3- to 4-foot sample from HW-B-2 (0.16 mg/kg) marginally exceeded the 0.14 mg/kg unrestricted soil screening level, but was well below the industrial screening level. No soil exceedances were detected for VOCs or PCBs (Table 17A).

The groundwater sample from HW-MW-1 contained dissolved concentrations of arsenic (14.9 µg/L), copper (8.3 µg/L), and nickel (30 µg/L) above respective groundwater screening levels. Note that the well is completed in silt, and is slow to produce groundwater (sampled collected over two days). No exceedances for VOCs or PAHs were detected in the groundwater sample (Table 17B).

Data Gaps and Proposed Round 3 Assessment for Hazardous Waste Cage

Defining the extent of soil lead exceedance adjacent to HW-MW-1 remains a data gap. The proposed Round 3 data collection for this area includes the following (Figure 17):

- Sample soil at depths of 0 to 1 feet, 3 to 4 feet, and 6 to 7 feet from two borings (HW-B-3 and -4) located west of HW-MW-1, within former chip pile area, and analyze the samples for lead and arsenic. A 9- to 10-foot soil sample will also be collected and archived for later analysis if needed; and
- Conduct the dry-season groundwater sampling and analysis event for well HW-MW-1, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

3.18 Diesel AST Area

Data from the monitoring well REC2-MW-5, located to monitor groundwater downgradient of the Diesel AST, are discussed in Section 3.3. West of the AST is the diesel pump station (Figure 18A). This fuel storage location is distinct from REC 2, and is therefore addressed as its own area here.

Round 2 Data Collection

As stated in Section 3.3, the Round 2 data collection for this area included (Figure 18):

- Installed and sampled soil from a new monitoring well boring (REC2-MW-5) located downgradient of the existing 250,000-gallon diesel above-ground storage tank (AST) immediately north of the distribution warehouse. Based on field screening information, analyzed the soil samples for diesel-/oil-range TPH and PAHs; and
- Collected a groundwater sample from well REC2-MW-5 for analysis of gasoline-range TPH, VOCs, diesel-/oil-range TPH, low-level PAHs, and TSS.

Assessment Findings

Downgradient of the diesel AST, TPH was detected at 5,030 mg/kg (predominantly oil-range) in the upper 2 feet of soil at REC2-MW-5. The underlying 2.5- to 3.5-foot and 7- to 8-foot (at water table) soil samples had no detectable petroleum (Figure 18). The surficial detection of oil at this location does not appear related to the diesel AST.

The groundwater sample from REC2-MW-5 contained detectable diesel (222 µg/L) and the PAH fluorene (0.71 µg/L) below respective groundwater screening levels, and no detectable VOCs (Table 3B).

Data Gaps and Proposed Round 3 Assessment for Diesel AST Area

Lack of data immediately adjacent to the AST and the diesel pump house is a data gap. The proposed Round 3 data collection for this area includes the following (Figure 18):

- Drill soil borings on the downgradient (west) sides of the diesel AST (DA-B-1) and diesel pump house (DA-MW-1), and, from each, collect up to three soil samples based on field screening for analysis of diesel-/oil-range TPH and PAHs; and
- Sample groundwater from wells DA-MW-1 and REC2-MW-5 for diesel-/oil-range TPH, low-level PAHs, VOCs, and TSS.

3.19 Hydraulic Barker Building

The Hydraulic Barker Building was located on the east side of the Log Pond Fill (Figure 19) from before 1947 until sometime after 1992. High pressure water was used to remove bark from logs at the building.

Data Gaps and Proposed Round 3 Assessment for Hydraulic Barker Building

General Fill borings GF-B6- and -7 have been sampled to the north and east sides of the Hydraulic Barker Building (Section 3.20), but the lack of data at the Building location itself is considered a data gap. The proposed Round 3 data collection for this area includes the following (Figure 19):

- Drill and sample four soil borings in at the Hydraulic Barker Building (HB-B-1, -2, -3, and HB-MW-1). Collect from each boring three soil samples at depths of 1 to 2 feet, 3 to 4 feet, and 6 to 7 feet, unless otherwise indicated based on field screening. Analyze each soil sample for diesel-/oil-range TPH, SVOCs, and priority pollutant metals; also analyze the 1- to 2-foot soil sample from each boring for PCBs; and
- Complete HB-MW-1 as a monitoring well, and analyze the groundwater sample collected from it for diesel-/oil-range TPH, low-level PAHs, SVOCs, VOCs, and TSS.

3.20 General Fill Soil Quality

Because of the uncertain composition and source of the fill upon which the mill facility was constructed, and the mill's long-term industrial operations, a general assessment of the fill soil quality outside of other operational areas was conducted.

Round 2 Data Collection

The Round 2 data collection for this area included (Figure 20):

- Advanced and sampled soil from 15 soil borings (GF-B-1 through -15A) in accessible locations spread across the Upland Area. Boring GF-B-15A was a

replacement boring, located a few feet from GF-B-15 which had poor soil recovery that limited soil sample collection. Twelve of the General Fill borings (GF-B-1, -2, -3, -4, -5, -6, -7, -10, -11, -13, -14, and -15A) were drilled using hollow stem auger to collect geotechnical information (blow counts) in addition to the environmental sampling; and

- From each boring, collected soil samples generally at depths of 1 to 2.5 feet and 7.5 to 9.0 feet below grade, subject to soil recovery. Where inadequate soil volume was recovered to conduct the required analyses, a second sample was collected immediately beneath the target depth interval for the additional analyses. Each soil sample was analyzed for gasoline-range TPH, diesel-/oil-range TPH, VOCs, SVOCs, priority pollutant metals, PCBs, and total organic carbon. In addition, the 1- to 2.5-foot soil sample from each boring was analyzed for dioxins/furans. At borings GF-B-1 and GF-B-2 in the northernmost portion of the Upland Area, at least 10 feet of wood waste, no soil, was present below depths of about 5 to 6 feet; therefore, the intended deeper soil sample (7.5 to 9 feet) was not collected from these borings.

Assessment Findings

The soil quality data for the General Fill borings are tabulated in Table 18, and the detected soil concentrations exceeding unrestricted soil screening levels are shown on Figure 20.

Detected concentrations of gasoline-range TPH, VOCs other than methylene chloride, SVOCs other than cPAHs, metals other than lead, and PCBs were below soil screening levels for unrestricted use. Soil concentrations of diesel-/oil-range TPH, total cPAHs methylene chloride, lead, and dioxins/furans exceeded screening levels in one or more General Fill soil samples, as described below.

Diesel- or oil-range TPH exceedances were detected in soil at two of the General Fill boring locations:

- GF-B-9: 6,520 mg/kg diesel-range TPH detected in 7.5- to 9-foot soil sample (saturated soil). The sample's total cPAH concentration (0.056 mg/kg) was below the unrestricted soil screening level. TPH was not detected in the 1- to 2.5-foot sample from the boring; and

- GF-B-14: 7,800 mg/kg oil-range TPH, and associated total cPAH (1.43 mg/kg TEQ), detected in 1- to 2.5-foot soil sample. TPH not detected in 7.5- to 9-foot sample from the boring. The oil-range TPH in shallow soil at this location is on the edge of similar contamination associated with REC 2 (Section 3.2), and is likely associated with former petroleum storage in that area.

Lower concentrations of diesel-/oil-range TPH, up to about 1,000 mg/kg and well below the unrestricted soil screening level, were detected in one or more soil samples from several General Fill borings (GF-B-4, -5, -6, -7, and -15A). No exceedances for gasoline-range TPH were detected in the samples.

In addition to the GF-B-14 sample, total cPAH concentrations above the unrestricted soil screening level were detected at General Fill borings GF-B-3 (1.6 and 0.34 mg/kg in 7.5- to 9- and 11- to 12.5-foot soil samples, respectively) and GF-B15A (0.28 mg/kg in 25- to

26.6-foot sample). No detected total cPAH concentrations exceeded the 2 mg/kg industrial soil screening level.

Methylene chloride was detected in the 7.5- to 9-foot sample from GF-B-12 at a concentration of 0.5 mg/kg, equal to the analytical reporting limit. Methylene chloride is a solvent used in analytical laboratories, and is recognized by EPA as a common laboratory contaminant (EPA, 2008). The 0.02 mg/kg unrestricted (and industrial) soil screening level applied in this assessment is the MTCA Method A soil cleanup level, which is based on leaching to protect groundwater used for drinking water. Groundwater in the fill is not a practicable drinking water source, and the most stringent groundwater screening level for methylene chloride applied in this assessment is 94 µg/L, based on vapor intrusion (Table 2), approximately 18 times higher than the 5 µg/L drinking water criterion. Methylene chloride has not been detected in Upland Area groundwater. The lone detection of methylene chloride in soil at GF-B-12 is above the soil screening level applied in this assessment, but is not a constituent of concern for the Upland Area based on the collective data to date.

Lead was detected at a concentration (659 mg/kg) above the unrestricted soil screening level, but below the industrial screening level in the 1- to 2.5-foot sample from boring GF-B-11. The deeper 7.5- to 9-foot sample from the boring contained 15 mg/kg lead.

Dioxins/furans (TCDD (TEQ)) were detected at a concentration above the 1.1×10^{-5} mg/kg unrestricted soil screening level in one of the 15 General Fill borings: 1.48×10^{-5} mg/kg at GF-B-5. The detected dioxins/furans concentrations in the General Fill borings, including the GF-B-5 exceedance, are representative of urban background soil concentrations, as discussed in Section 3.16.

Data Gaps and Proposed Round 3 Assessment for General Fill Soil

The proposed Round 3 data collection for this area includes the following (Figure 19):

- GF-B-9 area: To refine characterization of the diesel contamination observed below the water table at GF-B-9, drill and sample soil from three soil borings (GF9-B-1, GF9-B-2, and, GF9-MW-1) around GF-B-9. Collect soil samples at depths of 4 to 5 feet below grade, at the water table depth observed during drilling, and 3 to 4 feet below the water table, unless otherwise indicated by field screening during drilling. Analyze the soil samples for diesel-/oil-range TPH and PAHs. Complete GF9-MW-1 as a monitoring well, and collect a groundwater sample from it for analysis of diesel-/oil-range TPH, low-level PAHs, and TSS; and

- GF-B-11 area: To refine characterization of the lead contamination observed in shallow soil at GF-B-11, drill and sample soil from three soil borings (GF11-B-1, GF11-B-2, and, GF11-B-3) around GF-B-11. Collect soil samples at depths of 0 to 1 foot, 2 to 3 feet, and 4 to 5 feet. Analyze the soil samples for lead. A soil sample will also be collected from the 7- to 8-foot depth and archived for later analysis if warranted based on the shallower soil results.

We recommend that oil-range petroleum detected at the GF-B-14 location be addressed as part of the opportunistic interim action recommended for REC 2 (Section 3.3). Therefore, no Round 3 assessment is proposed for that location.

3.21 Groundwater Quality along Upgradient Edge of Property

Metals concentrations in groundwater along the upgradient (eastern) edge of the Upland Area were measured to assess background groundwater quality in the fill. The wells are also available for assessing background concentrations of other analytes if useful for comparison, based on data collected.

Round 2 Data Collection

The Round 2 data collection for this area included:

- Installed and collected groundwater samples from monitoring wells UG-MW-1 and UG-MW-2 along the upgradient edge of the Upland Area (Figure 1), for analyses of priority pollutant metals and TSS. The groundwater sample from well UG-MW-1 was also analyzed for total priority pollutant metals.

There was no field screening evidence of petroleum contamination during drilling of the two monitoring wells; therefore no analyses for petroleum-related constituents were conducted in accordance with the Work Plan.

Assessment Findings

Detected dissolved and total metals concentrations in the upgradient wells were below respective groundwater screening levels. Chromium, nickel and zinc were detected in the samples at maximum concentrations of 1.05 µg/L, 5.04 µg/L, and 5.03 µg/L, respectively (Table 19). Groundwater at well UG-MW-1 to the north was more oxygen-rich (dissolved oxygen [DO] of 3.9 mg/L and positive ORP) than groundwater at UG-MW-2 (0.3 mg/L DO and slightly negative ORP).

Proposed Round 3 Assessment

The proposed Round 3 data collection for this area includes the following:

- Conduct the dry-season groundwater sampling and analysis event for wells UG-MW-1 and UG-MW-2, repeating the Round 2 sampling and analyses as outlined in the Work Plan (Aspect, 2012).

4 Hydrogeologic Data Collection and Results

4.1 Data Collection

4.1.1 Site-Wide Water Level Measurements

Two sets of concurrent depth-to-water measurements were collected from Upland Area monitoring wells. A "low" tide set of groundwater measurements was collected on July 3, 2012, shortly after a lower low tide of approximately -5 feet. A "high" tide set of measurements was collected on July 6, 2012, shortly after a higher high tide of approximately 10 feet. The Upland Area wells were professionally surveyed to a common datum (NAVD88 vertical datum) by David Evans and Associates on July 6, 2012. Table 20 presents the monitoring well tops of casing elevations and two sets of manual water level measurements.

4.1.2 Tidal Study

Between July 3 and 6, 2012, a period of large tidal fluctuations (maximum of approximately 15.4 feet), a 72-hour tidal study was conducted to evaluate effects of tidal fluctuations on nearshore groundwater levels, and thus flow directions, throughout the tidal cycle. The tidal study involved collecting continuous water level measurements throughout a 72-hour period at twelve upland monitoring wells: shoreline wells REC7-MW-1, REC7-MW-2, MW-6, UST70-MW2, REC7-MW-3, and REC7-MW-4 where tidal fluctuations are greatest, and inland wells NRP-MW-4, UST69-MW-1, AP-MW-1, REC5-MW-1, UST68-MW-1, and UST-68-MW-5 where tidal fluctuations are muted. The manual water level measurements confirm only minor water level fluctuations in wells within the eastern portion of the Upland Area (Table 20)[13].

Each of the wells was equipped with a downhole pressure transducer/data logger to allow automated collection of water level data at 5-minute intervals. A data logger was also installed at a standpipe placed in the Waterway to directly record tidal fluctuations (Tidal Station TM-1, shown in Figures 21, 22, and 23). A barometric pressure data logger was also installed on site to allow the water level data to be corrected for changes in atmospheric pressure throughout the study. Manual depth-to-water measurements were collected at each monitoring well during the installation and the retrieval of the pressure transducer/data loggers. These data are used to convert the transducer readings to groundwater elevation.

The tidal data were analyzed using the method of Serfes (1991) to derive a 72- hour tidally-averaged groundwater elevation for the study period for each monitoring location. The data were used to assess the net (tidally averaged) groundwater flow direction and

[13] Well HW-MW-1 shows a large fluctuation between the low-tide and high-tide manual measurements. However, the change is attributable to the effects of prior groundwater sampling, and not representative of normal conditions. The HW-MW-1 well is screened in low permeability silt. It was sampled on July 2 and 3, 2012, to collect a suitable sample volume, and the sampling drew down the water level essentially to the well bottom. As such, the July 3 low tide groundwater elevation is biased low since the well was still recovering from prior groundwater sampling.

hydraulic gradients. The tidal study data will also be assessed for usability in estimating hydraulic conductivity by the methods of Ferris (1963).

4.2 Groundwater Flow Directions

Groundwater flow directions across the tidal cycle are depicted on the water table elevation contour maps developed for low tide, high tide, and tidal-average conditions (Figures 21, 22, and 23, respectively). Because changes in groundwater levels lag behind the tidal changes, the water table elevation contours represent "snapshots" of times when groundwater levels, not the tide, were, on average, at minimum, midpoint, or maximum levels. Flow directions in upland areas in the eastern portion of the site remain relatively constant throughout the tidal cycle, and shoreline wells exhibit short term flow direction changes and/or reversals in response to tidal extremes.

4.2.1 Low Tide Groundwater Flow Directions

At low tide (Figure 21), groundwater flows generally west towards the East Waterway, perpendicular to the long dimension of the property. Hydraulic gradients within the eastern half of the property are relatively low (0.03 to 0.009 ft/ft), and relatively higher within 200 ft of the shoreline (0.06 to 0.1 ft/ft). Two slight groundwater divides are present at low tide (1): an east-west trending divide in the central portion of the Site near the Wood Chip storage area, and (2) a second east-west trending divide in the southern portion of the property near the Acid Plant and the Boiler/Baghouse area. At extreme low tides, groundwater elevations within 50 feet of the shoreline remain 8 to 12 feet above the tide.

4.2.2 High Tide Groundwater Flow Directions

At high tide (Figure 22), the tide level in the East Waterway rises more rapidly than does the water table within the Upland Area, temporarily causing flow from the East Waterway into the nearshore portion of the fill (saline intrusion). Upgradient groundwater in the eastern portion of the Upland Area remains westward during high tide. A “trough” of stagnant groundwater is present for several hours surrounding tidal lows along the shoreline. The “trough” of stagnant groundwater is approximately 50 feet wide in the northern portion of the Site near REC7-MW-1, NRP-MW-3, MW-5, and NRP-MW-2; and becomes wider in the southern portion of the Site near MW-6, UST70-MW-1, UST70-MW-2, REC3-MW-1, UST68-MW-2, and UST68-MW-5. The slight groundwater divides present at low tide are also present at high tide. At extreme high tides, groundwater elevations within 50 feet of the shoreline remain 0.2 to 2 feet below the tide.

4.2.3 Tidal-Averaged Net Groundwater Flow Directions

Figure 23 provides the water table elevation contour map based on mean groundwater elevations calculated using data from the 72-hour tidal monitoring period (July 3 through 6, 2012). While nearshore groundwater flow directions reverse diurnally with the tide, contouring of the mean groundwater elevations from a synchronous time period provides a picture of the net groundwater flow condition. In other words, although tidal fluctuations cause short-term reversals in hydraulic gradients and thus groundwater flow directions (Figure 22), the net (tidally averaged) groundwater flow directions within the Upland Area are as depicted in Figure 23, demonstrating the expected net discharge to the East Waterway.

To prepare Figure 23, the tidally averaged groundwater elevations were calculated from the tidal monitoring station and twelve wells instrumented during the tidal study (Section 4.1.2) and, for the remaining 22 wells, were calculated by averaging their respective low tide and high tide manual water level measurements. On Figure 23, the groundwater elevation data from the instrumented wells are displayed in blue, and data from the manual measurements are display in gray. Our interpreted groundwater elevation contours relied more heavily on the instrumented well data.

The map of tidally averaged groundwater conditions confirms the general flow patterns seen at high and low tide, but without the inland flow component observed at high tide only. The northern and southern groundwater divides present at high and low tide are also present in the tidally-averaged groundwater elevation data, and the hydraulic gradients in the eastern portion of the Site are consistent with the high and low tide snapshots. Tidally averaged groundwater elevations within 50 feet of the shoreline remain approximately 1.5 to 4 feet above the tide.

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Table 1 - Groundwater Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

ANALYTE (BY GROUP)	APPLICABLE GROUNDWATER CRITERIA: Marine Surface Water Criteria: Surface Water ARAR - Aquatic Life - Marine - Ch. 173-201A WAC (ma-wac)	Surface Water ARAR - Aquatic Life - Marine - Clean Water Act §304 (ma-cwa)	Surface Water ARAR - Aquatic Life - Marine - National Toxics Rule, 40 CFR 131 (ma-ntr)	Surface Water ARAR - Human Health – Marine – Clean Water Act §304 (hh-cwa)	Surface Water ARAR - Human Health – Marine – National Toxics Rule, 40 CFR 131 (hh-ntr)	Surface Water, Method B, Most-Restrictive, Standard Formula[a,b] (sw-b)	Tier 1 Vapor Intrusion Groundwater Screening Level for Unrestricted + Method A for TPH[c] (vi-b)	State Background Groundwater Concentration (back)	Most Stringent Groundwater Screening Level[d]	
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Hydrocarbons[e] in ug/L							800		**800**	*(vi-b)*
Diesel Range Hydrocarbons in ug/L							500		**500**	*(vi-b)*
Oil Range Hydrocarbons in ug/L							500		**500**	*(vi-b)*
Total TPH[f] in ug/L							500		**500**	*(vi-b)*
Metals										
Antimony ug/L				640	4300	1000			**640**	*(hh-cwa)*
Arsenic[g] in ug/L	36	36	36	0.14	0.14	0.098		5	**5**	*(back)*
Beryllium ug/L						270			**270**	*(sw-b)*
Cadmium in ug/L	9.3	8.8	9.3			41			**8.8**	*(ma-cwa)*
Chromium (III) in ug/L						240000			**240000**	*(sw-b)*
Chromium (VI) in ug/L	50	50	50			490			**50**	*(ma-wac)*
Chromium (Total) in ug/L										
Copper in ug/L	3.1	3.1	2.4			2900			**2.4**	*(ma-ntr)*
Lead in ug/L	8.1	8.1	8.1						**8.1**	*(ma-wac)*
Mercury in ug/L		0.94			0.15		0.89		**0.15**	*(hh-ntr)*
Nickel in ug/L	8.2	8.2	8.2	4600	4600	1100			**8.2**	*(ma-wac)*
Selenium in ug/L	71	71	71	4200		2700	*		**71**	*(ma-wac)*
Silver in ug/L	1.9	1.9	1.9			26000			**1.9**	*(ma-wac)*
Thallium ug/L				0.47	6.3				**0.47**	*(hh-cwa)*
Zinc in ug/L	81	81	81	26000		17000			**81**	*(ma-wac)*
Conventional Chemistry Parameters										
Ammonia in mg/L	0.035								**0.035**	*(ma-wac)*
Formaldehyde[h] in ug/L									**1600**	*footnote h*
Sulfide in ug/L										
Volatile Organic Compounds (VOCs)										
1,1,1,2-Tetrachloroethane in ug/L							7.4		**7.4**	*(vi-b)*
1,1,1-Trichloroethane in ug/L						930000	11000		**11000**	*(vi-b)*
1,1,2 - Trichlorotrifluoroethane in ug/L							1100		**1100**	*(vi-b)*
1,1,2,2-Tetrachloroethane in ug/L				4	11	6.5	6.2		**4**	*(hh-cwa)*
1,1,2-Trichloroethane in ug/L				16	42	25	7.9		**7.9**	*(vi-b)*
1,1-Dichloroethane in ug/L							2300		**2300**	*(vi-b)*
1,1-Dichloroethene in ug/L				7100	3.2	23000	130		**3.2**	*(hh-ntr)*
1,1-Dichloropropene in ug/L										
1,2,3-Trichlorobenzene in ug/L										
1,2,3-Trichloropropane in ug/L										
1,2,4-Trichlorobenzene in ug/L				70		2	3900		**2**	*(sw-b)*
1,2,4-Trimethylbenzene in ug/L							24		**24**	*(vi-b)*
1,2-Dibromo-3-chloropropane in ug/L										

Table 1 - Groundwater Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

	APPLICABLE GROUNDWATER CRITERIA									
	Marine Surface Water Criteria									
ANALYTE (BY GROUP)	Surface Water ARAR - Aquatic Life - Marine - Ch. 173-201A WAC	Surface Water ARAR - Aquatic Life - Marine - Clean Water Act §304	Surface Water ARAR - Aquatic Life - Marine - National Toxics Rule, 40 CFR 131	Surface Water ARAR - Human Health – Marine – Clean Water Act §304	Surface Water ARAR - Human Health – Marine – National Toxics Rule, 40 CFR 131	Surface Water, Method B, Most-Restrictive, Standard Formula[a,b]	**Tier 1 Vapor Intrusion Groundwater Screening Level for Unrestricted + Method A for TPH[c]**	**State Background Groundwater Concentration**	**Most Stringent Groundwater**	
1,2-Dibromoethane (EDB) in ug/L							0.74		**0.74**	*(vi-b)*
1,2-Dichlorobenzene in ug/L				1300	17000	4200	1800		**1300**	*(hh-cwa)*
1,2-Dichloroethane (EDC) in ug/L				37	99	59	4.2		**4.2**	*(vi-b)*
1,2-Dichloropropane in ug/L				15			28		**15**	*(hh-cwa)*
1,3,5-Trimethylbenzene in ug/L							25		**25**	*(vi-b)*
1,3-Dichlorobenzene in ug/L				960	2600				**960**	*(hh-cwa)*
1,3-Dichloropropane in ug/L										
1,4-Dichloro-2-Butene in ug/L										
1,4-Dichlorobenzene in ug/L				190	2600		7900		**190**	*(hh-cwa)*
2,2-Dichloropropane in ug/L										
2-Butanone in ug/L							350000		**350000**	*(vi-b)*
2-Chloroethyl Vinyl Ether in ug/L										
2-Chlorotoluene in ug/L										
2-Hexanone in ug/L										
4-Chlorotoluene in ug/L										
4-Methyl-2-pentanone in ug/L							11000		**11000**	*(vi-b)*
Acetone in ug/L										
Acrolein in ug/L				290	780		2.9		**2.9**	*(vi-b)*
Acrylonitrile in ug/L				0.25	0.66	0.4	16		**0.25**	*(hh-cwa)*
Benzene in ug/L				51	71	23	2.4		**2.4**	*(vi-b)*
bis(2-chloroisopropyl)ether ug/L				65000	170000				**65000**	*(hh-cwa)*
Bromobenzene in ug/L										
Bromochloromethane in ug/L										
Bromodichloromethane in ug/L				17	22	28	0.09		**0.09**	*(vi-b)*
Bromoethane in ug/L										
Bromoform in ug/L				140	360	220	200		**140**	*(hh-cwa)*
Bromomethane in ug/L				1500	4000	970	13		**13**	*(vi-b)*
Carbon disulfide in ug/L							400		**400**	*(vi-b)*
Carbon tetrachloride in ug/L				1.6	4.4	4.9	0.22		**0.22**	*(vi-b)*
Chlorobenzene in ug/L				1600	21000	5000	100		**100**	*(vi-b)*
Chloroethane in ug/L							12		**12**	*(vi-b)*
Chloroform in ug/L				470	470	6900	1.2		**1.2**	*(vi-b)*
Chloromethane in ug/L							5.2		**5.2**	*(vi-b)*
cis-1,2-Dichloroethene (DCE) in ug/L							160		**160**	*(vi-b)*
cis-1,3-Dichloropropene in ug/L										
Dibromochloromethane in ug/L				13	34	21	0.22		**0.22**	*(vi-b)*
Dibromomethane in ug/L										
Dichlorodifluoromethane in ug/L							9.9		**9.9**	*(vi-b)*
Ethylbenzene in ug/L				2100	29000	6900	2800		**2100**	*(hh-cwa)*
Hexachlorobutadiene in ug/L				18	50	30	0.81		**0.81**	*(vi-b)*
Isopropylbenzene in ug/L							720		**720**	*(vi-b)*

Table 1 - Groundwater Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

	APPLICABLE GROUNDWATER CRITERIA									
	Marine Surface Water Criteria									
ANALYTE (BY GROUP)	Surface Water ARAR - Aquatic Life - Marine - Ch. 173-201A WAC	Surface Water ARAR - Aquatic Life - Marine - Clean Water Act §304	Surface Water ARAR - Aquatic Life - Marine - National Toxics Rule, 40 CFR 131	Surface Water ARAR - Human Health – Marine – Clean Water Act §304	Surface Water ARAR - Human Health – Marine – National Toxics Rule, 40 CFR 131	Surface Water, Method B, Most-Restrictive, Standard Formula[a,b]	**Tier 1 Vapor Intrusion Groundwater Screening Level for Unrestricted + Method A for TPH[c]**	**State Background Groundwater Concentration**	**Most Stringent Groundwater**	
m,p-Xylenes in ug/L							310		**310**	*(vi-b)*
o-Xylene in ug/L							440		**440**	*(vi-b)*
Xylenes (total) in ug/L							310		**310**	*(vi-b)*
Methylene chloride in ug/L				590	1600	960	94		**94**	*(vi-b)*
Methyl-Tert-Butyl Ether ug/L							610		**610**	*(vi-b)*
Methyliodide in ug/L										
n-Butylbenzene in ug/L										
n-Propylbenzene in ug/L										
p-Isopropyltoluene in ug/L										
Pyridine in ug/L										
sec-Butylbenzene in ug/L										
Styrene in ug/L							78		**78**	*(vi-b)*
tert-Butylbenzene in ug/L										
Tetrachloroethene (PCE) in ug/L				3.3	8.9	0.39	1		**0.39**	*(sw-b)*
Toluene in ug/L				15000	200000	19000	15000		**15000**	*(hh-cwa)*
trans-1,2-Dichloroethene in ug/L				10000		33000	130		**130**	*(vi-b)*
trans-1,3-Dichloropropene in ug/L										
Trichloroethene (TCE) in ug/L				30	81	6.7	0.42		**0.42**	*(vi-b)*
Trichlorofluoromethane in ug/L							120		**120**	*(vi-b)*
Vinyl acetate in ug/L							7800		**7800**	*(vi-b)*
Vinyl chloride in ug/L				2.4	530	3.7	0.35		**0.35**	*(vi-b)*
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene in ug/L				990		640			**640**	*(sw-b)*
Acenaphthylene in ug/L										
Anthracene in ug/L				40000	110000	26000			**26000**	*(sw-b)*
Benzo(g,h,i)perylene in ug/L										
Fluoranthene in ug/L				140	370	90			**90**	*(sw-b)*
Fluorene in ug/L				5300	14000	3500			**3500**	*(sw-b)*
Phenanthrene in ug/L										
Pyrene in ug/L				4000	11000	2600			**2600**	*(sw-b)*
1-Methylnaphthalene in ug/L										
2-Methylnaphthalene in ug/L										
Naphthalene in ug/L						4900	170		**170**	*(vi-b)*
Total Naphthalenes in ug/L										
Benz(a)anthracene in ug/L				0.018	0.031	0.3			**0.018**	*(hh-cwa)*
Benzo(a)pyrene in ug/L				0.018	0.031	0.03			**0.018**	*(hh-cwa)*
Benzo(b)fluoranthene in ug/L				0.018	0.031	0.3			**0.018**	*(hh-cwa)*
Benzo(k)fluoranthene in ug/L				0.018	0.031	3			**0.018**	*(hh-cwa)*
Chrysene in ug/L				0.018	0.031	30			**0.018**	*(hh-cwa)*
Dibenzo(a,h)anthracene in ug/L				0.018	0.031	0.03			**0.018**	*(hh-cwa)*
Indeno(1,2,3-cd)pyrene in ug/L				0.018	0.031	0.3			**0.018**	*(hh-cwa)*

Table 1 - Groundwater Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

ANALYTE (BY GROUP)	APPLICABLE GROUNDWATER CRITERIA: Marine Surface Water Criteria: Surface Water ARAR - Aquatic Life - Marine - Ch. 173-201A WAC	Surface Water ARAR - Aquatic Life - Marine - Clean Water Act §304	Surface Water ARAR - Aquatic Life - Marine - National Toxics Rule, 40 CFR 131	Surface Water ARAR - Human Health – Marine – Clean Water Act §304	Surface Water ARAR - Human Health – Marine – National Toxics Rule, 40 CFR 131	Surface Water, Method B, Most-Restrictive, Standard Formula[a,b]	Tier 1 Vapor Intrusion Groundwater Screening Level for Unrestricted + Method A for TPH[c]	State Background Groundwater Concentration	Most Stringent Groundwater	
Total cPAHs TEQ in ug/L				0.018	0.031	0.03			**0.018**	*(hh-cwa)*
Other Semi-Volatile Organics										
1,2,4-Trichlorobenzene in ug/L				70		2	3900		**2**	*(sw-b)*
1,2-Dichlorobenzene in ug/L				1300	17000	4200	1800		**1300**	*(hh-cwa)*
1,3-Dichlorobenzene in ug/L				960	2600				**960**	*(hh-cwa)*
1,4-Dichlorobenzene in ug/L				190	2600		7900		**190**	*(hh-cwa)*
2,3,4,6-Tetrachlorophenol ug/L										
2,4,5-Trichlorophenol in ug/L				3600					**3600**	*(hh-cwa)*
2,4,6-Trichlorophenol in ug/L				2.4	6.5	3.9			**2.4**	*(hh-cwa)*
2,4-Dichlorophenol in ug/L				290	790	190			**190**	*(sw-b)*
2,4-Dimethylphenol in ug/L				850		550			**550**	*(sw-b)*
2,6-Dichlorophenol ug/L										
2,4-Dinitrophenol in ug/L				5300	14000	3500			**3500**	*(sw-b)*
2-Chloronaphthalene in ug/L				1600		1000			**1000**	*(sw-b)*
2-Chlorophenol in ug/L						97			**97**	*(sw-b)*
2-Methylphenol in ug/L										
2-Nitroaniline in ug/L										
2-Nitrophenol in ug/L										
3,3'-Dichlorobenzidine in ug/L				0.028	0.077	0.046			**0.028**	*(hh-cwa)*
3-Nitroaniline in ug/L										
4,6-Dinitro-2-methylphenol in ug/L										
4-Bromophenyl phenyl ether in ug/L										
4-Chloro-3-methylphenol in ug/L										
4-Chloroaniline in ug/L										
4-Chlorophenyl phenyl ether in ug/L										
4-Methylphenol in ug/L										
4-Nitroaniline in ug/L										
4-Nitrophenol in ug/L										
Aniline ug/L										
Azobenzene ug/L										
Benzoic acid in ug/L										
Benzyl alcohol in ug/L										
Benzyl butyl phthalate in ug/L				1900		8.2			**8.2**	*(sw-b)*
Bis(2-chloro-1-methylethyl) ether in ug/L						37			**37**	*(sw-b)*
Bis(2-chloroethoxy)methane in ug/L										
Bis(2-chloroethyl) ether in ug/L				0.53	1.4	0.85	26		**0.53**	*(hh-cwa)*
Bis(2-ethylhexyl) phthalate in ug/L				2.2	5.9	3.6			**2.2**	*(hh-cwa)*
Carbazole in ug/L										
Dibenzofuran in ug/L										
Diethyl phthalate in ug/L				44000	120000	28000			**28000**	*(sw-b)*
Dimethyl phthalate in ug/L				1100000	2900000				**1100000**	*(hh-cwa)*

Table 1 - Groundwater Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

ANALYTE (BY GROUP)	APPLICABLE GROUNDWATER CRITERIA: Marine Surface Water Criteria: Surface Water ARAR - Aquatic Life - Marine - Ch. 173-201A WAC	Surface Water ARAR - Aquatic Life - Marine - Clean Water Act §304	Surface Water ARAR - Aquatic Life - Marine - National Toxics Rule, 40 CFR 131	Surface Water ARAR - Human Health – Marine – Clean Water Act §304	Surface Water ARAR - Human Health – Marine – National Toxics Rule, 40 CFR 131	Surface Water, Method B, Most-Restrictive, Standard Formula[a,b]	**Tier 1 Vapor Intrusion Groundwater Screening Level for Unrestricted + Method A for TPH[c]**	**State Background Groundwater Concentration**	**Most Stringent Groundwater**	
Di-n-butyl phthalate in ug/L				4500	12000	2900			**2900**	*(sw-b)*
Di-n-octyl phthalate in ug/L										
Hexachlorobenzene in ug/L				0.00029	0.00077	0.00047			**0.00029**	*(hh-cwa)*
Hexachlorobutadiene in ug/L				18	50	30	0.81		**0.81**	*(vi-b)*
Hexachlorocyclopentadiene in ug/L				1100	17000	3600			**1100**	*(hh-cwa)*
Hexachloroethane in ug/L				3.3	8.9	5.3	8.6		**3.3**	*(hh-cwa)*
Isophorone in ug/L				960	600	1600			**600**	*(hh-ntr)*
m,p-Cresol in ug/L										
Nitrobenzene in ug/L				690	1900	1800	690		**690**	*(hh-cwa)*
N-Nitroso-di-n-propylamine in ug/L				0.51		0.82			**0.51**	*(hh-cwa)*
N-Nitrosodiethanolamine ug/L										
N-Nitrosodimethylamine ug/L				3	8.1	4.9			**3**	*(hh-cwa)*
N-Nitrosodiphenylamine in ug/L				6	16	9.7			**6**	*(hh-cwa)*
Pentachlorophenol in ug/L	7.9	7.9	7.9	3	8.2	1.5			**1.5**	*(sw-b)*
Phenol in ug/L				1700000	4600000	560000			**560000**	*(sw-b)*
Retene ug/L										
trans-1,4-Dichloro-2-butene ug/L										
2,4-Dinitrotoluene in ug/L				3.4	9.1	1400			**3.4**	*(hh-cwa)*
2,6-Dinitrotoluene in ug/L										

Notes:

a) Values from Ecology's CLARC Database; except as noted.

b) Method B values are most restrictive of carcinogenic or non-carcinogenic values presented in Ecology's CLARC database.

c) Vapor intrusion screening levels from Table B-1 (Appendix B) of Ecology's Guidance for Evaluation of Soil Vapor Intrusion (Ecology, 2009). Method A values for TPH mixtures assume potable groundwater use, but are used in absence of other criteria.

d) Most stringent of values protective of marine surface water and vapor intrusion, not less than background.

e) For gasoline-range TPH, the displayed Method A value assumes benzene is present; the value is 100 mg/kg if benzene is not present and sum of BTEX

f) Total TPH = sum of diesel- and oil-range hydrocarbon concentrations, in accordance with MTCA.

g) For arsenic, the Method A groundwater cleanup level, based on state-wide background, is retained as the screening level (WAC 173-340-900 Table 720-1).

h) For formaldehyde, screening level is based on protection of aquatic life (Anchor Environmental, 2008).

i) Analytical practical quantitation limits (PQLs) are not considered in this tabulation of screening levels, but may be a factor in defining cleanup levels.

Table 2 - Soil Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

ANALYTE (BY GROUP)	*Unrestricted Land Use*			*Industrial Land Use*		
	Soil, Method A, Unrestricted Land Use, Table Value (mg/kg)	Soil, Method B, Standard Formula Value (mg/kg)	**Most Restrictive Unrestricted Soil Screening Level (mg/kg)**	Soil, Method A, Industrial Land Use, Table Value (mg/kg)	Soil, Method C, Most Restrictive Standard Formula Value (mg/kg)	**Most Restrictive Industrial Soil Screening Level (mg/kg)**
Total Petroleum Hydrocarbons (TPH)						
Gasoline Range Hydrocarbons[c]	30		**30**	30		**30**
Diesel Range Hydrocarbons	2000		**2000**	2000		**2000**
Oil Range Hydrocarbons	2000		**2000**	2000		**2000**
Total TPH[d]	2000		**2000**	2000		**2000**
Metals						
Antimony						
Arsenic[e]	20	0.67	**20**	20	88	**20**
Beryllium						
Cadmium	2		**2**	2		**2**
Chromium (III)	2000		**2000**	2000		**2000**
Chromium (VI)	19		**19**	19		**19**
Chromium (Total)						
Copper						
Lead	250		**250**	1000		**1000**
Mercury	2		**2**	2		**2**
Nickel						
Selenium						
Silver						
Thallium						
Zinc						
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane		38	**38**		5000	**5000**
1,1,1-Trichloroethane	2		**2**	2		**2**
1,1,2 - Trichlorotrifluoroethane						
1,1,2,2-Tetrachloroethane		5	**5**		660	**660**
1,1,2-Trichloroethane		18	**18**		2300	**2300**
1,1-Dichloroethane						
1,1-Dichloroethene						
1,1-Dichloropropene						
1,2,3-Trichlorobenzene						
1,2,3-Trichloropropane		0.033	**0.033**		4.4	**4.4**
1,2,4-Trichlorobenzene		35	**35**		4500	**4500**
1,2,4-Trimethylbenzene						
1,2-Dibromo-3-chloropropane		1.3	**1.3**		160	**160**
1,2-Dibromoethane (EDB)	0.005	0.5	**0.005**	0.005	66	**0.005**
1,2-Dichlorobenzene						
1,2-Dichloroethane (EDC)		11	**11**		1400	**1400**
1,2-Dichloropropane						
1,3,5-Trimethylbenzene						
1,3-Dichlorobenzene						
1,3-Dichloropropane						
1,4-Dichloro-2-Butene						
1,4-Dichlorobenzene						
2,2-Dichloropropane						
2-Butanone						
2-Chloroethyl Vinyl Ether						
2-Chlorotoluene						
2-Hexanone						
4-Chlorotoluene						
4-Methyl-2-pentanone						
Acetone						
Acrolein						

Table 2 - Soil Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

	Unrestricted Land Use			*Industrial Land Use*		
ANALYTE (BY GROUP)	Soil, Method A, Unrestricted Land Use, Table Value (mg/kg)	Soil, Method B, Standard Formula Value (mg/kg)	**Most Restrictive Unrestricted Soil Screening Level (mg/kg)**	Soil, Method A, Industrial Land Use, Table Value (mg/kg)	Soil, Method C, Most Restrictive Standard Formula Value (mg/kg)	**Most Restrictive Industrial Soil Screening Level (mg/kg)**
Acrylonitrile		1.9	**1.9**		240	**240**
Benzene	0.03	18	**0.03**	0.03	2400	**0.03**
bis(2-chloroisopropyl)ether						
Bromobenzene						
Bromochloromethane						
Bromodichloromethane		16	**16**		2100	**2100**
Bromoethane						
Bromoform		130	**130**		17000	**17000**
Bromomethane						
Carbon disulfide						
Carbon tetrachloride		14	**14**		1900	**1900**
Chlorobenzene						
Chloroethane						
Chloroform						
Chloromethane						
cis-1,2-Dichloroethene (DCE)						
cis-1,3-Dichloropropene						
Dibromochloromethane		12	**12**		1600	**1600**
Dibromomethane						
Dichlorodifluoromethane						
Ethylbenzene	6		**6**	6		**6**
Hexachlorobutadiene		13	**13**		1700	**1700**
Isopropylbenzene						
m,p-Xylenes		16000	**16000**		700000	**700000**
o-Xylene		16000	**16000**		700000	**700000**
Xylenes (total)	9		**9**	9		**9**
Methylene chloride	0.02	130	**0.02**	0.02	18000	**0.02**
Methyl-Tert-Butyl Ether	0.1		**0.1**	0.1		**0.1**
Methyliodide						
n-Butylbenzene						
n-Propylbenzene						
p-Isopropyltoluene						
Pyridine						
sec-Butylbenzene						
Styrene						
tert-Butylbenzene						
Tetrachloroethene (PCE)	0.05	1.9	**0.05**	0.05	240	**0.05**
Toluene	7		**7**	7		**7**
trans-1,2-Dichloroethene						
trans-1,3-Dichloropropene						
Trichloroethene (TCE)	0.03	11	**0.03**	0.03	1500	**0.03**
Trichlorofluoromethane						
Vinyl acetate						
Vinyl chloride		0.67	**0.67**		88	**88**
Naphthalene	5		**5**	5		**5**

Table 2 - Soil Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

ANALYTE (BY GROUP)	*Unrestricted Land Use*			*Industrial Land Use*		
	Soil, Method A, Unrestricted Land Use, Table Value (mg/kg)	Soil, Method B, Standard Formula Value (mg/kg)	**Most Restrictive Unrestricted Soil Screening Level (mg/kg)**	Soil, Method A, Industrial Land Use, Table Value (mg/kg)	Soil, Method C, Most Restrictive Standard Formula Value (mg/kg)	**Most Restrictive Industrial Soil Screening Level (mg/kg)**
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene						
Acenaphthylene						
Anthracene						
Benzo(g,h,i)perylene						
Fluoranthene						
Fluorene						
Phenanthrene						
Pyrene						
1-Methylnaphthalene		35	**35**		4500	**4500**
2-Methylnaphthalene						
Naphthalene	5		**5**	5		**5**
Total Naphthalenes						
Benz(a)anthracene		1.4	**1.4**		180	**180**
Benzo(a)pyrene[f]	0.1	0.14	**0.14**	2	18	**2**
Benzo(b)fluoranthene		1.4	**1.4**		180	**180**
Benzo(k)fluoranthene		14	**14**		1800	**1800**
Chrysene		140	**140**		18000	**18000**
Dibenzo(a,h)anthracene		0.14	**0.14**		18	**18**
Indeno(1,2,3-cd)pyrene		1.4	**1.4**		180	**180**
Total cPAHs TEQ	0.1	0.14	**0.14**	2	18	**2**
Other Semi-Volatile Organics						
1,2,4-Trichlorobenzene		35	**35**		4500	**4500**
1,2-Dichlorobenzene						
1,3-Dichlorobenzene						
1,4-Dichlorobenzene						
2,3,4,6-Tetrachlorophenol						
2,4,5-Trichlorophenol						
2,4,6-Trichlorophenol		91	**91**		12000	**12000**
2,4-Dichlorophenol						
2,4-Dimethylphenol						
2,6-Dichlorophenol						
2,4-Dinitrophenol						
2-Chloronaphthalene						
2-Chlorophenol						
2-Methylphenol						
2-Nitroaniline						
2-Nitrophenol						
3,3'-Dichlorobenzidine		2.2	**2.2**		290	**290**
3-Nitroaniline						
4,6-Dinitro-2-methylphenol						
4-Bromophenyl phenyl ether						
4-Chloro-3-methylphenol						
4-Chloroaniline		5	**5**		660	**660**
4-Chlorophenyl phenyl ether						
4-Methylphenol						
4-Nitroaniline						
4-Nitrophenol						
Aniline		180	**180**		23000	**23000**
Azobenzene		9.1	**9.1**		1200	**1200**
Benzoic acid						
Benzyl alcohol						
Benzyl butyl phthalate		530	**530**		69000	**69000**
Bis(2-chloro-1-methylethyl) ether		14	**14**		1900	**1900**

Table 2 - Soil Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

	Unrestricted Land Use			*Industrial Land Use*		
ANALYTE (BY GROUP)	Soil, Method A, Unrestricted Land Use, Table Value (mg/kg)	Soil, Method B, Standard Formula Value (mg/kg)	**Most Restrictive Unrestricted Soil Screening Level (mg/kg)**	Soil, Method A, Industrial Land Use, Table Value (mg/kg)	Soil, Method C, Most Restrictive Standard Formula Value (mg/kg)	**Most Restrictive Industrial Soil Screening Level (mg/kg)**
Bis(2-chloroethoxy)methane						
Bis(2-chloroethyl) ether		0.91	**0.91**		120	**120**
Bis(2-ethylhexyl) phthalate		71	**71**		9400	**9400**
Carbazole						
Dibenzofuran						
Diethyl phthalate						
Dimethyl phthalate						
Di-n-butyl phthalate						
Di-n-octyl phthalate						
Hexachlorobenzene		0.63	**0.63**		82	**82**
Hexachlorobutadiene		13	**13**		1700	**1700**
Hexachlorocyclopentadiene						
Hexachloroethane		71	**71**		9400	**9400**
Isophorone		1100	**1100**		140000	**140000**
m,p-Cresol						
Nitrobenzene						
N-Nitroso-di-n-propylamine		0.14	**0.14**		19	**19**
N-Nitrosodiethanolamine		0.36	**0.36**		47	**47**
N-Nitrosodimethylamine		0.02	**0.02**		2.6	**2.6**
N-Nitrosodiphenylamine		200	**200**		27000	**27000**
Pentachlorophenol		2.5	**2.5**		330	**330**
Phenol						
Retene						
trans-1,4-Dichloro-2-butene						
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Polychlorinated Biphenyls (PCBs)						
Aroclor 1016		14	**14**		1900	**1900**
Aroclor 1221						
Aroclor 1232						
Aroclor 1242						
Aroclor 1248						
Aroclor 1254		0.5	**0.5**		66	**66**
Aroclor 1260		0.5	**0.5**		66	**66**
Aroclor 1262						
Aroclor 1268						
Total PCBs	1	0.5	**0.5**	10	66	**10**

Table 2 - Soil Screening Levels for Environmental Assessment

K-C Worldwide Site Upland Area 110207

	Unrestricted Land Use			*Industrial Land Use*		
ANALYTE (BY GROUP)	Soil, Method A, Unrestricted Land Use, Table Value (mg/kg)	Soil, Method B, Standard Formula Value (mg/kg)	**Most Restrictive Unrestricted Soil Screening Level (mg/kg)**	Soil, Method A, Industrial Land Use, Table Value (mg/kg)	Soil, Method C, Most Restrictive Standard Formula Value (mg/kg)	**Most Restrictive Industrial Soil Screening Level (mg/kg)**
Dioxins/Furans						
2,3,7,8-TCDD		1.1E-05	**1.1E-05**		1.5E-03	**1.5E-03**
1,2,3,7,8-PeCDD						
1,2,3,4,7,8-HxCDD						
1,2,3,6,7,8-HxCDD						
1,2,3,7,8,9-HxCDD		1.6E-04	**1.6E-04**		2.1E-02	**2.1E-02**
1,2,3,4,6,7,8-HpCDD						
OCDD						
2,3,7,8-TCDF						
1,2,3,7,8-PeCDF						
2,3,4,7,8-PeCDF						
1,2,3,4,7,8-HxCDF						
1,2,3,6,7,8-HxCDF						
1,2,3,7,8,9-HxCDF						
2,3,4,6,7,8-HxCDF						
1,2,3,4,6,7,8-HpCDF						
1,2,3,4,7,8,9-HpCDF						
OCDF						
Total 2,3,7,8 TCDD (TEQ)		1.1E-05	**1.1E-05**		1.5E-03	**1.5E-03**

Notes:

a) Values from Ecology's CLARC Database; except as noted.

b) Method B and C values are most restrictive of carcinogenic or non-carcinogenic values presented in Ecology's CLARC database.

c) For gasoline-range TPH, the displayed Method A value assumes benzene is present; the value is 100 mg/kg if benzene is not present and sum of BTEX concentrations is less than 1% of the TPH concentration. This is an area-specific determination.

d) Total TPH = sum of diesel- and oil-range hydrocarbon concentrations, in accordance with MTCA.

e) For arsenic, the Method B cleanup level is below background concentrations, thus the Method A unrestricted soil cleanup level, based on background, is retained as the unrestricted screening level.

f) For benzo(a)pyrene, the Method A unrestricted soil cleanup level is the Method B cleanup level rounded to one significant digit. Therefore, the Method B value is retained as the unrestricted screening level.

g) Analytical practical quantitation limits (PQLs) are not considered in this tabulation of screening levels, but may be a factor in defining cleanup levels.

Table 3A - Soil Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	DP-01 2/14/2012 (2.5-3 ft.)	DP-01 2/14/2012 (5.5-6 ft.)	DP-02 2/14/2012 (1.5-2.5 ft.)	DP-02 2/14/2012 (6-7 ft.)	DP-03 2/14/2012 (4-5 ft.)	DP-03 2/14/2012 (6-7 ft.)	DP-04 2/14/2012 (1-2 ft.)	DP-04 2/14/2012 (9-10 ft.)	DP-05 2/14/2012 (7-8 ft.)	DP-05 2/14/2012 (13-14 ft.)	DP-06 2/14/2012 (3-4 ft.)	DP-06 2/14/2012 (7-8 ft.)	DP-08 2/14/2012 (6-7 ft.)	DP-08 2/14/2012 (12-13 ft.)	DP-10 2/14/2012 (3-4 ft.)	DP-10 2/14/2012 (9-10 ft.)	DP-11 2/15/2012 (8.5-9.5 ft.)
Total Petroleum Hydrocarbons																			
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	2 U	2 U	46	2 U	2 U	2 U	21	2 U	2 U	2 U	2 U	7	2 U	2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	7,400	50 U	50 U	50 U	21,000	50 U	50 U	50 U	250	50 U	50 U	50 U	78	50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	9,000	250 U	250 U	250 U	10,000	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	16,400	ND	ND	ND	31,000	ND	ND	ND	375	ND	ND	ND	203	ND	ND	ND	ND
Metals																			
Lead in mg/kg	250	1,000					2.37												
Polycyclic Aromatic Hydrocarbons (PAHs)																			
Acenaphthene in mg/kg			3.1	0.01 U			7	0.01 U											
Acenaphthylene in mg/kg			2 U	0.01 U			2 U	0.01 U											
Anthracene in mg/kg			5.2	0.01 U			8.7	0.01 U											
Benzo(g,h,i)perylene in mg/kg			3.2	0.01 U			2.2	0.01 U											
Fluoranthene in mg/kg			3.1	0.01 U			2.7	0.01 U											
Fluorene in mg/kg			4.3	0.01 U			8.5	0.01 U											
Phenanthrene in mg/kg			13	0.035			32	0.01 U											
Pyrene in mg/kg			23	0.02			17	0.01 U											
Naphthalene in mg/kg	5	5	2 U	0.01 U			2 U	0.01 U											
Benz(a)anthracene in mg/kg	1.4	180	8.6	0.012			8.8	0.01 U											
Benzo(a)pyrene in mg/kg	0.14	0.14	5.7	0.01 U			4.7	0.01 U											
Benzo(b)fluoranthene in mg/kg	1.4	180	2	0.01 U			2 U	0.01 U											
Benzo(k)fluoranthene in mg/kg	14	1,800	2 U	0.01 U			2 U	0.01 U											
Chrysene in mg/kg	140	18,000	17	0.022			14	0.01 U											
Dibenzo(a,h)anthracene in mg/kg	0.14	18	2 U	0.01 U			2 U	0.01 U											
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	2 U	0.01 U			2 U	0.01 U											
Total cPAHs TEQ in mg/kg	0.14	2	7.23	0.00842			6.12	ND											
Volatile Organic Compounds																			
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005					0.05 U												
1,2-Dichloroethane (EDC) in mg/kg	11	1,400					0.05 U												
Benzene in mg/kg	0.03	0.03	0.02 U	0.02 U	0.02 U	0.02 U	0.055	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Diisopropyl ether (DIPE) in mg/kg							0.05 U												
Ethanol in mg/kg							50 U												
Ethyl t-butyl ether (ETBE) in mg/kg							0.05 U												
Ethylbenzene in mg/kg	6	6	0.02 U	0.02 U	0.02 U	0.02 U	0.52	0.02 U	0.02 U	0.02 U	0.11	0.02 U	0.02 U	0.02 U	0.02 U	0.084	0.02 U	0.02 U	0.02 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1					0.05 U												
t-Amyl methyl ether (TAME) in mg/kg							0.05 U												
t-Butyl alcohol (TBA) in mg/kg							2.5 U												
Toluene in mg/kg	7	7	0.02 U	0.02 U	0.02 U	0.02 U	0.1	0.02 U	0.02 U	0.02 U	0.03	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Xylenes (total) in mg/kg	9	9	0.06 U	0.06 U	0.06 U	0.06 U	1.5	0.06 U	0.06 U	0.06 U	0.26	0.06 U	0.06 U	0.06 U	0.06 U	0.072	0.06 U	0.06 U	0.06 U

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 3A - Soil Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	DP-11 2/15/2012 (14-15 ft.)	DP-12 2/15/2012 (6.5-7.5 ft.)	DP-12 2/15/2012 (9-10 ft.)	DP-13 2/15/2012 (3-4 ft.)	DP-13 2/15/2012 (12-13 ft.)	MW-01 2/15/2012 (3-4 ft.)	MW-01 2/15/2012 (6.5-7.5 ft.)	MW-02 2/15/2012 (3-4 ft.)	MW-02 2/15/2012 (9-10 ft.)	MW-03 2/15/2012 (7.5-8.5 ft.)	MW-03 2/15/2012 (13-14 ft.)	MW-04 2/14/2012 (4-5 ft.)	MW-04 2/14/2012 (7-8 ft.)	REC2-B-01 6/28/2012 (3.5-4.5 ft.)	REC2-B-01 6/28/2012 (5.5-6.5 ft.)	REC2-B-01 6/28/2012 (7.5-8.5 ft.)	REC2-B-02 6/28/2012 (3-4 ft.)
Total Petroleum Hydrocarbons																			
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	4.9	2 U	2 U				
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 U	67	50 U	120	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	192	ND	245	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																			
Lead in mg/kg	250	1,000																	
Polycyclic Aromatic Hydrocarbons (PAHs)																			
Acenaphthene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthylene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Anthracene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Fluorene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Pyrene in mg/kg																0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene in mg/kg	5	5														0.01 U	0.01 U	0.01 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180														0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14														0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180														0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800														0.01 U	0.01 U	0.01 U	0.01 U
Chrysene in mg/kg	140	18,000														0.01 U	0.01 U	0.01 U	0.01 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18														0.01 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180														0.01 U	0.01 U	0.01 U	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2														ND	ND	ND	ND
Volatile Organic Compounds																			
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005																	
1,2-Dichloroethane (EDC) in mg/kg	11	1,400																	
Benzene in mg/kg	0.03	0.03	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U				
Diisopropyl ether (DIPE) in mg/kg																			
Ethanol in mg/kg																			
Ethyl t-butyl ether (ETBE) in mg/kg																			
Ethylbenzene in mg/kg	6	6	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.042	0.02 U	0.02 U				
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1																	
t-Amyl methyl ether (TAME) in mg/kg																			
t-Butyl alcohol (TBA) in mg/kg																			
Toluene in mg/kg	7	7	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U				
Xylenes (total) in mg/kg	9	9	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U				

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 3A - Soil Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC2-B-02 6/28/2012 (4.5-5.5 ft.)	REC2-B-02 6/28/2012 (6.5-7.5 ft.)	REC2-B-03 6/28/2012 (4-5 ft.)	REC2-B-03 6/28/2012 (5.5-6.5 ft.)	REC2-B-03 6/28/2012 (7.5-8.5 ft.)	REC2-B-04 5/23/2012 (1.5-2.5 ft.)	REC2-B-04 5/23/2012 (4-5 ft.)	REC2-B-04 5/23/2012 (6.5-7.5 ft.)	REC2-B-05 5/24/2012 (2-3 ft.)	REC2-B-05 5/24/2012 (7-8 ft.)	REC2-B-06 6/28/2012 (4.5-5.5 ft.)	REC2-B-06 6/28/2012 (6.5-7.5 ft.)	REC2-B-06 6/28/2012 (8.5-9.5 ft.)	REC2-B-07 5/23/2012 (4-5 ft.)	REC2-B-07 5/23/2012 (6.5-7.5 ft.)	REC2-B-08 5/23/2012 (4-5 ft.)	REC2-B-08 5/23/2012 (10-11 ft.)
Total Petroleum Hydrocarbons																			
Gasoline Range Hydrocarbons in mg/kg	100	100																	
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 U	50 U	50 U	2,900	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2,300	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	5,700	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	3,100	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	ND	ND	8,600	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,400	ND
Metals																			
Lead in mg/kg	250	1,000																	
Polycyclic Aromatic Hydrocarbons (PAHs)																			
Acenaphthene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.63	0.01
Acenaphthylene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.33	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U
Anthracene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.73	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.86	0.01 U
Benzo(g,h,i)perylene in mg/kg			0.01 U	0.01 U	0.016	0.01 U	0.01 U	0.59	0.01 U	0.01 U	0.45	0.01 U	0.01 U	0.01 U	0.023	0.01 U	0.01 U	0.58	0.01 U
Fluoranthene in mg/kg			0.01 U	0.01 U	0.036	0.01 U	0.01 U	0.55	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.049	0.01 U	0.01 U	0.59	0.01 U
Fluorene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.73	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.93	0.01 U
Phenanthrene in mg/kg			0.01 U	0.01 U	0.019	0.01 U	0.01 U	1.1	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	3.5	0.01 U
Pyrene in mg/kg			0.01 U	0.01 U	0.039	0.01 U	0.01 U	2.9	0.01	0.01 U	0.18	0.01 U	0.01 U	0.016	0.1	0.01 U	0.01 U	4	0.01 U
Naphthalene in mg/kg	5	5	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180	0.01 U	0.01 U	0.02	0.01 U	0.01 U	0.74	0.01 U	0.01 U	0.22	0.01 U	0.01 U	0.012	0.061	0.01 U	0.01 U	2.1	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01 U	0.01 U	0.02	0.01 U	0.01 U	0.65	0.01 U	0.01 U	0.62	0.01 U	0.01 U	0.01 U	0.044	0.01 U	0.01 U	1.1	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01 U	0.01 U	0.026	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.55	0.01 U	0.01 U	0.01	0.049	0.01 U	0.01 U	0.45	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.16	0.01 U	0.01 U	0.01 U	0.014	0.01 U	0.01 U	0.076	0.01 U
Chrysene in mg/kg	140	18,000	0.01 U	0.01 U	0.02	0.01 U	0.01 U	1.4	0.01 U	0.01 U	0.41	0.01 U	0.01 U	0.013	0.087	0.01 U	0.01 U	2.5	0.01 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.13	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01 U	0.01 U	0.018	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.42	0.01 U	0.01 U	0.01 U	0.024	0.01 U	0.01 U	0.24	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2	ND	ND	0.0276	ND	ND	0.838	ND	ND	0.772	ND	ND	0.00883	0.0602	ND	ND	1.41	ND
Volatile Organic Compounds																			
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005																	
1,2-Dichloroethane (EDC) in mg/kg	11	1,400																	
Benzene in mg/kg	0.03	0.03																	
Diisopropyl ether (DIPE) in mg/kg																			
Ethanol in mg/kg																			
Ethyl t-butyl ether (ETBE) in mg/kg																			
Ethylbenzene in mg/kg	6	6																	
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1																	
t-Amyl methyl ether (TAME) in mg/kg																			
t-Butyl alcohol (TBA) in mg/kg																			
Toluene in mg/kg	7	7																	
Xylenes (total) in mg/kg	9	9																	

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 3A - Soil Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC2-B-09 5/24/2012 (2-6 ft.)	REC2-B-09 5/24/2012 (6-7 ft.)	REC2-B-09 5/24/2012 (7.5-8.5 ft.)	REC2-B-10 6/28/2012 (3.5-4.5 ft.)	REC2-B-10 6/28/2012 (5.5-6.5 ft.)	REC2-B-10 FD 6/28/2012 (5.5-6.5 f	REC2-B-10 6/28/2012 (8.5-9.5 ft.)	REC2-B-11 5/24/2012 (3-4 ft.)	REC2-B-11 5/24/2012 (7.5-8.5 ft.)	REC2-B-11 5/24/2012 (11-12 ft.)	REC2-B-12 5/23/2012 (5-6 ft.)	REC2-B-12 5/23/2012 (8-9 ft.)	REC2-B-12 5/23/2012 (17-18 ft.)	REC2-MW-05 5/29/2012 (0-2 ft.)	REC2-MW-05 5/29/2012 (2.5-3.5 ft	REC2-MW-05 5/29/2012 (7-8 ft.)
Total Petroleum Hydrocarbons																		
Gasoline Range Hydrocarbons in mg/kg	100	100																
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	12,000	1,200	50 U	10,000	990	540	50 U	110	290	50 U	2,500	24,000	50 U	930	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	6,800	1,300	250 U	19,000	3,100	1,800	250 U	250 U	250 U	250 U	2,800	15,000	250 U	4,100	250 U	250 U
Total TPH in mg/kg	2,000	2,000	18,800	2,500	ND	29,000	4,090	2,340	ND	235	415	ND	5,300	39,000	ND	5,030	ND	ND
Metals																		
Lead in mg/kg	250	1,000																
Polycyclic Aromatic Hydrocarbons (PAHs)																		
Acenaphthene in mg/kg			15	0.13	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.59	0.01 U	0.01 U	0.57	9.6	0.01 U	0.042	0.01 U	0.022
Acenaphthylene in mg/kg			0.5 U	0.05 U	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.1 U	0.01 U	0.01 U	0.05 U	1 U	0.01 U	0.44	0.01 U	0.01 U
Anthracene in mg/kg			10	0.05 U	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.44	0.01 U	0.01 U	0.67	12	0.01 U	0.39	0.01 U	0.01 U
Benzo(g,h,i)perylene in mg/kg			3	0.068	0.01 U	0.81 J	0.54	0.41 J	0.01 U	0.55	0.01 U	0.01 U	0.32	2.4	0.01 U	1.7 J	0.01 U	0.01 U
Fluoranthene in mg/kg			4.6	0.19	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	1.7	0.01 U	0.01 U	0.23	2.8	0.01 U	0.43	0.01 U	0.01 U
Fluorene in mg/kg			17	0.076	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.97	0.013	0.01 U	0.8	13	0.01 U	0.058	0.01 U	0.01 U
Phenanthrene in mg/kg			61	0.12	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	3.5	0.01 U	0.01 U	2	43	0.024	0.29	0.01 U	0.01 U
Pyrene in mg/kg			23	0.29	0.01 U	3.0 J	0.14	0.27 J	0.01 U	2.4	0.01 U	0.01 U	1.5	18	0.012	1.3	0.01 U	0.01 U
Naphthalene in mg/kg	5	5	6.8	0.05 U	0.01 U	0.5 U	0.1 U	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U	0.05 U	1 U	0.01 U	0.18	0.01 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180	16	0.11	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.86	0.01 U	0.01 U	0.8	9.6	0.01 U	0.29	0.01 U	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14	7.2	0.075	0.01 U	1.0 J	0.26	0.26 J	0.01 U	0.79	0.01 U	0.01 U	0.41	4.5	0.01 U	1.3	0.01 U	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180	3.1	0.078	0.01 U	0.55 J	0.1 U	0.11 J	0.01 U	0.77	0.01 U	0.01 U	0.17	1.6	0.01 U	1.3	0.01 U	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.43	0.05 U	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.23	0.01 U	0.01 U	0.05 U	1 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene in mg/kg	140	18,000	18	0.18	0.01 U	1.2 J	0.31	0.21 J	0.01 U	1.3	0.01 U	0.01 U	1.1	13	0.01 U	0.55	0.01 U	0.01 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	1.3	0.05 U	0.01 U	0.5 UJ	0.1 U	0.1 UJ	0.01 U	0.15	0.01 U	0.01 U	0.05 U	1 U	0.01 U	0.32	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	1	0.06	0.01 U	0.5 UJ	0.25	0.20 J	0.01 U	0.48	0.01 U	0.01 U	0.13	1 U	0.01 U	1.8 J	0.01 U	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2	9.56	0.107	ND	1.17 J	0.308	0.308 J	ND	1.05	ND	ND	0.536	5.9	ND	1.68	ND	ND
Volatile Organic Compounds																		
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005																
1,2-Dichloroethane (EDC) in mg/kg	11	1,400																
Benzene in mg/kg	0.03	0.03																
Diisopropyl ether (DIPE) in mg/kg																		
Ethanol in mg/kg																		
Ethyl t-butyl ether (ETBE) in mg/kg																		
Ethylbenzene in mg/kg	6	6																
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1																
t-Amyl methyl ether (TAME) in mg/kg																		
t-Butyl alcohol (TBA) in mg/kg																		
Toluene in mg/kg	7	7																
Xylenes (total) in mg/kg	9	9																

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 3B - Groundwater Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-01 2/17/2012	MW-01 6/6/2012	MW-02 2/17/2012	MW-02 6/6/2012	MW-03 2/17/2012	MW-03 6/5/2012	MW-04 2/17/2012	MW-04 6/8/2012	MW-04 FD 6/8/2012	REC2-MW-05 6/8/2012
Total Petroleum Hydrocarbons											
Gasoline Range Hydrocarbons in ug/L	1000	100 U	100 U	100 U	100 U	350	960	100 U	100 U	100 U	100 U
Diesel Range Hydrocarbons in ug/L	500	50 U	50 U	50 U	50 U	80	500	130	150	89	97
Oil Range Hydrocarbons in ug/L	500	250 U	250 UJ	250 U	250 UJ	250 U	250 U	250 U	250 UJ	250 UJ	250 UJ
Total TPHs in ug/L	500	ND	ND	ND	ND	205	625	255	275	214	222
Dissolved Metals											
Dissolved Antimony in ug/L	640		1 U		0.69 J						
Dissolved Arsenic in ug/L	5		0.95		1.35						
Dissolved Beryllium in ug/L	270		0.02 U		0.0023 J						
Dissolved Cadmium in ug/L	8.8		0.096		0.077						
Dissolved Chromium (Total) in ug/L			0.34		1.13						
Dissolved Copper in ug/L	2.4		2.56		1.36						
Dissolved Lead in ug/L	8.1	5 U	0.097	1 U	6.42	1 U		26.8	14.3 J	5.56 J	
Dissolved Mercury in ug/L	0.15		0.1 U		0.1 U						
Dissolved Nickel in ug/L	8.2		2.65		12.3						
Dissolved Selenium in ug/L	71		1 U		1 U						
Dissolved Silver in ug/L	1.9		0.009 J		0.013 J						
Dissolved Thallium in ug/L	0.47		0.005 J		0.005 J						
Dissolved Zinc in ug/L	81		8.84		2.31						
Total Metals											
Total Antimony in ug/L	640				0.57 J						
Total Arsenic in ug/L	5				1.33						
Total Beryllium in ug/L	270				0.0005 J						
Total Cadmium in ug/L	8.8				0.035						
Total Chromium (Total) in ug/L					0.38						
Total Copper in ug/L	2.4				0.718						
Total Lead in ug/L	8.1				0.198				23.1	24.3	
Total Mercury in ug/L	0.15				0.1 U						
Total Nickel in ug/L	8.2				13.1						
Total Selenium in ug/L	71				1 U						
Total Silver in ug/L	1.9				0.02 U						
Total Thallium in ug/L	0.47				0.004 J						
Total Zinc in ug/L	81				1.7						
Conventional Chemistry Parameters											
Total Ammonia as Nitrogen in mg/L	0.035		0.05 U		0.118						
Total Dissolved Solids in mg/L		22,632		4,771		297		2,132			
Dissolved Sulfide in mg/L			0.05 U		0.05 U						
Total Suspended Solids in mg/L		10 U	12	20	10 U	10 U	10 U	170	10 U	12	15
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene in ug/L	640	0.1 U	0.05 U	0.1 U	0.05 U	1.7	2.7 J	4.3	1	0.97	9.9
Acenaphthylene in ug/L		0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Anthracene in ug/L	26,000	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.38	0.1 U	0.05 U	0.05 U	0.05 U
Benzo(g,h,i)perylene in ug/L		0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U
Fluoranthene in ug/L	90	0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.47	0.1	0.05 U	0.05 U	0.05 U
Fluorene in ug/L	3,500	0.1 U	0.05 U	0.1 U	0.05 U	2.1	3.6 J	2.7	0.35	0.28	0.71
Phenanthrene in ug/L		0.1 U	0.05 U	0.1 U	0.05 U	0.2	0.47	2.1	0.15	0.13	0.05 U
Pyrene in ug/L	2,600	0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.27	0.18	0.061	0.06	0.05 U
Naphthalene in ug/L	170	0.1 U	0.05 U	0.1 U	0.05 U	0.92	0.05 U	8	23	19	0.05 U
Benz(a)anthracene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.011	0.011	0.01 U
Benzo(a)pyrene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.017	0.019	0.01 U
Benzo(b)fluoranthene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Chrysene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.032	0.035	0.01 U
Dibenzo(a,h)anthracene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U
Total cPAHs TEQ in ug/L	0.018	ND	ND	ND	ND	ND	ND	ND	0.0204	0.0225	ND
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane in ug/L	7.4		1 U		1 U		1 U		1 U	1 U	1 U
1,1,1-Trichloroethane in ug/L	11,000		1 U		1 U		1 U		1 U	1 U	1 U
1,1,2,2-Tetrachloroethane in ug/L	4		1 U		1 U		1 U		1 U	1 U	1 U
1,1,2-Trichloroethane in ug/L	7.9		1 U		1 U		1 U		1 U	1 U	1 U
1,1-Dichloroethane in ug/L	2,300		1 U		1 U		1 U		1 U	1 U	1 U
1,1-Dichloroethene in ug/L	3.2		1 U		1 U		1 U		1 U	1 U	1 U
1,1-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
1,2,3-Trichlorobenzene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
1,2,3-Trichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
1,2,4-Trichlorobenzene in ug/L	2		1 U		1 U		1 U		1 U	1 U	1 U
1,2,4-Trimethylbenzene in ug/L	24		1 U		1 U		1 U		1 U	1 U	1 U
1,2-Dibromo-3-chloropropane in ug/L			10 U		10 U		10 U		10 U	10 U	10 U
1,2-Dibromoethane (EDB) in ug/L	0.74		1 U		1 U	0.01 U	1 U	0.01 U	1 U	1 U	1 U
1,2-Dichlorobenzene in ug/L	1,300		1 U		1 U		1 U		1 U	1 U	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane in ug/L	15		1 U		1 U		1 U		1 U	1 U	1 U
1,3,5-Trimethylbenzene in ug/L	25		1 U		1 U		1 U		1 U	1 U	1 U
1,3-Dichlorobenzene in ug/L	960		1 U		1 U		1 U		1 U	1 U	1 U
1,3-Dichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
1,4-Dichlorobenzene in ug/L	190		1 U		1 U		1 U		1 U	1 U	1 U
2,2-Dichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
2-Butanone in ug/L	350,000		10 U		10 U		10 U		10 U	10 U	10 U
2-Chlorotoluene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
2-Hexanone in ug/L			10 U		10 U		10 U		10 U	10 U	10 U
4-Chlorotoluene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
4-Methyl-2-pentanone in ug/L	11,000		10 U		10 U		10 U		10 U	10 U	10 U
Acetone in ug/L			10 U		10 U		10 U		10 U	10 U	10 U
Benzene in ug/L	2.4	1 U	0.35 U	1 U	0.35 U	1 U	0.35 U	1 U	0.35 U	0.35 U	0.35 U
Bromobenzene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
Bromodichloromethane in ug/L	0.09		1 U		1 U		1 U		1 U	1 U	1 U
Bromoform in ug/L	140		1 UJ		1 UJ		1 UJ		1 UJ	1 UJ	1 U
Bromomethane in ug/L	13		1 U		1 U		1 U		1 U	1 U	1 U
Carbon tetrachloride in ug/L	0.22		1 U		1 U		1 U		1 U	1 U	1 U
Chlorobenzene in ug/L	100		1 U		1 U		1 U		1 U	1 U	1 U
Chloroethane in ug/L	12		1 U		1 U		1 U		1 U	1 U	1 U
Chloroform in ug/L	1.2		1 U		1 U		1 U		1 U	1 U	1 U
Chloromethane in ug/L	5.2		10 U		10 U		10 U		10 U	10 U	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160		1 U		1 U		1 U		1 U	1 U	1 U
cis-1,3-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
Dibromochloromethane in ug/L	0.22		1 U		1 U		1 U		1 U	1 U	1 U
Dibromomethane in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
Dichlorodifluoromethane in ug/L	9.9		1 U		1 U		1 UJ		1 U	1 U	1 U
Ethylbenzene in ug/L	2,100	1 U	1 U	1 U	1 U	1.4	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene in ug/L	0.81		1 U		1 U		1 U		1 U	1 U	1 U
Isopropylbenzene in ug/L	720		1 U		1 U		7.6		1 U	1 U	1 U
Methylene chloride in ug/L	94		5 UJ		5 UJ		5 U		5 U	5 U	5 U
Methyl-Tert-Butyl Ether in ug/L	610		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene in ug/L			1 U		1 U		19		1 U	1 U	1 U
p-Isopropyltoluene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
sec-Butylbenzene in ug/L			1 U		1 U		6.5		1 U	1 U	1 U
Styrene in ug/L	78		1 U		1 U		1 U		1 U	1 U	1 U
tert-Butylbenzene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
Tetrachloroethene (PCE) in ug/L	0.39		1 U		1 U		1 U		1 U	1 U	1 U
Toluene in ug/L	15,000	1 U	1 U	1 U	1 U	6.8	1 U	1 U	1 U	1 U	1 U

Table 3B - Groundwater Quality Data for REC 2 - Former Oil House and Fuel ASTs

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-01 2/17/2012	MW-01 6/6/2012	MW-02 2/17/2012	MW-02 6/6/2012	MW-03 2/17/2012	MW-03 6/5/2012	MW-04 2/17/2012	MW-04 6/8/2012	MW-04 FD 6/8/2012	REC2-MW-05 6/8/2012
trans-1,2-Dichloroethene in ug/L	130		1 U		1 U		1 U		1 U	1 U	1 U
trans-1,3-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U	1 U
Trichloroethene (TCE) in ug/L	0.42		1 U		1 U		1 U		1 U	1 U	1 U
Trichlorofluoromethane in ug/L	120		1 U		1 U		1 U		1 U	1 U	1 U
Vinyl chloride in ug/L	0.35		0.2 U		0.2 U		0.2 U		0.2 U	0.2 U	0.2 U
m,p-Xylenes in ug/L	310		2 U		2 U		2 U		2 U	2 U	2 U
o-Xylene in ug/L	440		1 U		1 U		1 U		1 U	1 U	1 U
Xylenes (total) in ug/L	310	3 U	ND	3 U	ND	3.2	ND	3 U	ND	ND	ND
Semi-Volatile Organics											
1,2,4-Trichlorobenzene in ug/L	2		1 U		1 U						
1,2-Dichlorobenzene in ug/L	1,300		1 U		1 U						
1,3-Dichlorobenzene in ug/L	960		1 U		1 U						
1,4-Dichlorobenzene in ug/L	190		1 U		1 U						
2,4,5-Trichlorophenol in ug/L	3,600		10 U		10 U						
2,4,6-Trichlorophenol in ug/L	2.4		10 U		10 U						
2,4-Dichlorophenol in ug/L	190		10 U		10 U						
2,4-Dimethylphenol in ug/L	550		10 U		10 U						
2,4-Dinitrophenol in ug/L	3,500		30 U		30 U						
2-Chloronaphthalene in ug/L	1,000		1 U		1 U						
2-Chlorophenol in ug/L	97		10 U		10 U						
2-Methylphenol in ug/L			10 U		10 U						
2-Nitroaniline in ug/L			3 U		3 U						
2-Nitrophenol in ug/L			10 U		10 U						
3 & 4 Methylphenol in ug/L			20 U		20 U						
3-Nitroaniline in ug/L			3 U		3 U						
4,6-Dinitro-2-methylphenol in ug/L			30 U		30 U						
4-Bromophenyl phenyl ether in ug/L			1 U		1 U						
4-Chloro-3-methylphenol in ug/L			10 U		10 U						
4-Chloroaniline in ug/L			3 U		3 U						
4-Chlorophenyl phenyl ether in ug/L			1 U		1 U						
4-Nitroaniline in ug/L			10 U		10 U						
4-Nitrophenol in ug/L			10 U		10 U						
Acenaphthene in ug/L	640		1 U								
Acenaphthylene in ug/L			1 U								
Anthracene in ug/L	26,000		1 U								
Benzo(g,h,i)perylene in ug/L			1 U								
Benzoic acid in ug/L			50 U		50 U						
Benzyl alcohol in ug/L			10 U		10 U						
Benzyl butyl phthalate in ug/L	8.2		1 U		1 U						
Bis(2-chloro-1-methylethyl) ether in ug/L	37		10 U		10 U						
Bis(2-chloroethoxy)methane in ug/L			1 U		1 U						
Bis(2-chloroethyl) ether in ug/L	0.53		10 U		10 U						
Bis(2-ethylhexyl) phthalate in ug/L	2.2		10 U		10 U						
Carbazole in ug/L			1 U		1 U						
Dibenzofuran in ug/L			1 U		1 U						
Diethyl phthalate in ug/L	28,000		1 U		1 U						
Dimethyl phthalate in ug/L	1,100,000		1 U		1 U						
Di-n-butyl phthalate in ug/L	2,900		1 U		1 U						
Di-n-octyl phthalate in ug/L			1 U		1 U						
Fluoranthene in ug/L	90		1 U								
Fluorene in ug/L	3,500		1 U								
Hexachlorobenzene in ug/L	0.00029		1 U		1 U						
Hexachlorobutadiene in ug/L	0.81		1 U		1 U						
Hexachlorocyclopentadiene in ug/L	1,100		3 U		3 U						
Hexachloroethane in ug/L	3.3		1 U		1 U						
Isophorone in ug/L	600		1 U		1 U						
Nitrobenzene in ug/L	690		1 U		1 U						
N-Nitroso-di-n-propylamine in ug/L	0.51		10 U		10 U						
N-Nitrosodiphenylamine in ug/L	6		1 U		1 U						
Pentachlorophenol in ug/L	1.5		10 U		10 U						
Phenanthrene in ug/L			1 U								
Phenol in ug/L	560,000		10 U		10 U						
Pyrene in ug/L	2,600		1 U								
Benz(a)anthracene in ug/L	0.018		1 U								
Benzo(a)pyrene in ug/L	0.018		1 U								
Benzo(b)fluoranthene in ug/L	0.018		1 U								
Benzo(k)fluoranthene in ug/L	0.018		1 U								
Chrysene in ug/L	0.018		1 U								
Dibenzo(a,h)anthracene in ug/L	0.018		1 U								
Indeno(1,2,3-cd)pyrene in ug/L	0.018		1 U								
2,4-Dinitrotoluene in ug/L	3.4		1 U		1 U						
2,6-Dinitrotoluene in ug/L			1 U		1 U						
2-Methylnaphthalene in ug/L			1 U		1 U						
Field Parameters											
Dissolved Oxygen in mg/L		6.31	6.99	6.6	1.44	0.22	0.26	1.4	0.23		0.18
Eh (ORP) in mVolts		118	114.1	-102	87.5	-070	-69.1	-302	-54.8		-145.7
pH in pH Units		7.43	7.61	8.85	8.04	7.07	6.52	10.5	10.65		7.02
Specific Conductance in us/cm		36,646	19,290	9,109	19,510	6,263	454	2,587	3,635		265.7
Temperature in deg C		8.3	14.57	10.4	14.67	10.9	13.75	10.9	14.83		13.6
Turbidity in NTU		4.7	2.47	79.4	2.01	3.9	1.45	123	42		13.8

Notes

Concentrations in shaded cells exceed groundwater screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 4A - Soil Quality Data for REC 3 - Heavy Duty Shop Sump

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC3-MW-01 6/5/2012 (8.5-9.5 ft.	
Total Petroleum Hydrocarbons				
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50	U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250	U
Total TPH in mg/kg	2,000	2,000	ND	
Metals				
Lead in mg/kg	250	1,000	14.9	
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene in mg/kg			0.01	U
Acenaphthylene in mg/kg			0.01	U
Anthracene in mg/kg			0.01	U
Benzo(g,h,i)perylene in mg/kg			0.01	U
Fluoranthene in mg/kg			0.01	U
Fluorene in mg/kg			0.01	U
Phenanthrene in mg/kg			0.01	U
Pyrene in mg/kg			0.01	U
Naphthalene in mg/kg	5	5	0.01	U
Benz(a)anthracene in mg/kg	1.4	180	0.01	U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01	U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01	U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01	U
Chrysene in mg/kg	140	18,000	0.01	U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01	U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01	U
Total cPAHs TEQ in mg/kg	0.14	2	ND	
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05	U
1,1,1-Trichloroethane in mg/kg	2	2	0.05	U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05	U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05	U
1,1-Dichloroethane in mg/kg			0.05	U
1,1-Dichloroethene in mg/kg			0.05	U
1,1-Dichloropropene in mg/kg			0.05	U
1,2,3-Trichlorobenzene in mg/kg			0.25	U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05	U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25	U
1,2,4-Trimethylbenzene in mg/kg			0.05	U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5	U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05	U
1,2-Dichlorobenzene in mg/kg			0.05	U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05	U
1,2-Dichloropropane in mg/kg			0.05	U
1,3,5-Trimethylbenzene in mg/kg			0.05	U
1,3-Dichlorobenzene in mg/kg			0.05	U
1,3-Dichloropropane in mg/kg			0.05	U
1,4-Dichlorobenzene in mg/kg			0.05	U
2,2-Dichloropropane in mg/kg			0.05	U
2-Butanone in mg/kg			0.5	U
2-Chlorotoluene in mg/kg			0.05	U
2-Hexanone in mg/kg			0.5	U
4-Chlorotoluene in mg/kg			0.05	U
4-Methyl-2-pentanone in mg/kg			0.5	U
Acetone in mg/kg			0.5	U
Benzene in mg/kg	0.03	0.03	0.03	U
Bromobenzene in mg/kg			0.05	U
Bromodichloromethane in mg/kg	16	2,100	0.05	U
Bromoform in mg/kg	130	17,000	0.05	U
Bromomethane in mg/kg			0.5	U
Carbon tetrachloride in mg/kg	14	1,900	0.05	U
Chlorobenzene in mg/kg			0.05	U
Chloroethane in mg/kg			0.5	U
Chloroform in mg/kg			0.05	U
Chloromethane in mg/kg			0.5	U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05	U
cis-1,3-Dichloropropene in mg/kg			0.05	U
Dibromochloromethane in mg/kg	12	1,600	0.05	U
Dibromomethane in mg/kg			0.05	U
Dichlorodifluoromethane in mg/kg			0.5	UJ
Ethylbenzene in mg/kg	6	6	0.05	U
Hexachlorobutadiene in mg/kg	13	1,700	0.25	U
Isopropylbenzene in mg/kg			0.05	U
Methylene chloride in mg/kg	0.02	0.02	0.5	U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05	U
n-Propylbenzene in mg/kg			0.05	U
p-Isopropyltoluene in mg/kg			0.05	U
sec-Butylbenzene in mg/kg			0.05	U
Styrene in mg/kg			0.05	U
tert-Butylbenzene in mg/kg			0.05	U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025	U
Toluene in mg/kg	7	7	0.05	U
trans-1,2-Dichloroethene in mg/kg			0.05	U
trans-1,3-Dichloropropene in mg/kg			0.05	U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03	U
Trichlorofluoromethane in mg/kg			0.5	U
Vinyl chloride in mg/kg	0.67	88	0.05	U
m,p-Xylenes in mg/kg	16,000	700,000	0.1	U
o-Xylene in mg/kg	16,000		0.05	U
Xylenes (total) in mg/kg	9	9	ND	
Polychlorinated Biphenyls (PCBs)				
Aroclor 1016 in mg/kg	14	1,900	0.1	U
Aroclor 1221 in mg/kg			0.1	U
Aroclor 1232 in mg/kg			0.1	U
Aroclor 1242 in mg/kg			0.1	U
Aroclor 1248 in mg/kg			0.1	U
Aroclor 1254 in mg/kg	0.5	66	0.1	U
Aroclor 1260 in mg/kg	0.5	66	0.1	U
Total PCBs in mg/kg	1	10	ND	

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 4B - Groundwater Quality Data for REC 3 - Heavy Duty Shop Sump

K-CWorldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC3-MW-01 6/7/2012
Total Petroleum Hydrocarbons		
Diesel Range Hydrocarbons in ug/L	500	50 U
Oil Range Hydrocarbons in ug/L	500	250 UJ
Total TPHs in ug/L	500	ND
Dissolved Metals		
Dissolved Antimony in ug/L	640	1.2
Dissolved Arsenic in ug/L	5	2.22
Dissolved Beryllium in ug/L	270	0.0012 J
Dissolved Cadmium in ug/L	8.8	0.776
Dissolved Chromium (Total) in ug/L		0.09 J
Dissolved Copper in ug/L	2.4	0.568
Dissolved Lead in ug/L	8.1	0.022
Dissolved Mercury in ug/L	0.15	0.1 U
Dissolved Nickel in ug/L	8.2	4.95
Dissolved Selenium in ug/L	71	1 U
Dissolved Silver in ug/L	1.9	0.02 U
Dissolved Thallium in ug/L	0.47	0.007 J
Dissolved Zinc in ug/L	81	2.4
Conventional Chemistry Parameters		
Total Ammonia as Nitrogen in mg/L	0.035	0.041 J
Dissolved Sulfide in mg/L		0.05 U
Total Suspended Solids in mg/L		17
Polycyclic Aromatic Hydrocarbons (PAHs)		
Acenaphthene in ug/L	640	0.05 U
Acenaphthylene in ug/L		0.05 U
Anthracene in ug/L	26,000	0.05 U
Benzo(g,h,i)perylene in ug/L		0.05 UJ
Fluoranthene in ug/L	90	0.05 UJ
Fluorene in ug/L	3,500	0.05 U
Phenanthrene in ug/L		0.05 U
Pyrene in ug/L	2,600	0.05 UJ
Naphthalene in ug/L	170	0.05 U
Benz(a)anthracene in ug/L	0.018	0.01 UJ
Benzo(a)pyrene in ug/L	0.018	0.01 UJ
Benzo(b)fluoranthene in ug/L	0.018	0.01 UJ
Benzo(k)fluoranthene in ug/L	0.018	0.01 UJ
Chrysene in ug/L	0.018	0.01 UJ
Dibenzo(a,h)anthracene in ug/L	0.018	0.01 UJ
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.01 UJ
Total cPAHs TEQ in ug/L	0.018	ND
Volatile Organic Compounds		
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U
1,1-Dichloroethane in ug/L	2,300	1 U
1,1-Dichloroethene in ug/L	3.2	1 U
1,1-Dichloropropene in ug/L		1 U
1,2,3-Trichlorobenzene in ug/L		1 U
1,2,3-Trichloropropane in ug/L		1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2,4-Trimethylbenzene in ug/L	24	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U
1,2-Dichloropropane in ug/L	15	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,3-Dichloropropane in ug/L		1 U

Table 4B - Groundwater Quality Data for REC 3 - Heavy Duty Shop Sump

K-CWorldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC3-MW-01 6/7/2012
1,4-Dichlorobenzene in ug/L	190	1 U
2,2-Dichloropropane in ug/L		1 U
2-Butanone in ug/L	350,000	10 U
2-Chlorotoluene in ug/L		1 U
2-Hexanone in ug/L		10 U
4-Chlorotoluene in ug/L		1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U
Acetone in ug/L		10 U
Benzene in ug/L	2.4	0.35 U
Bromobenzene in ug/L		1 U
Bromodichloromethane in ug/L	0.09	1 U
Bromoform in ug/L	140	1 UJ
Bromomethane in ug/L	13	1 U
Carbon tetrachloride in ug/L	0.22	1 U
Chlorobenzene in ug/L	100	1 U
Chloroethane in ug/L	12	1 U
Chloroform in ug/L	1.2	1 U
Chloromethane in ug/L	5.2	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U
cis-1,3-Dichloropropene in ug/L		1 U
Dibromochloromethane in ug/L	0.22	1 U
Dibromomethane in ug/L		1 U
Dichlorodifluoromethane in ug/L	9.9	1 U
Ethylbenzene in ug/L	2,100	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Isopropylbenzene in ug/L	720	1 U
Methylene chloride in ug/L	94	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U
n-Propylbenzene in ug/L		1 U
p-Isopropyltoluene in ug/L		1 U
sec-Butylbenzene in ug/L		1 U
Styrene in ug/L	78	1 U
tert-Butylbenzene in ug/L		1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U
Toluene in ug/L	15,000	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U
trans-1,3-Dichloropropene in ug/L		1 U
Trichloroethene (TCE) in ug/L	0.42	1 U
Trichlorofluoromethane in ug/L	120	1 U
Vinyl chloride in ug/L	0.35	0.2 U
m,p-Xylenes in ug/L	310	2 U
o-Xylene in ug/L	440	1 U
Xylenes (total) in ug/L	310	ND
Semi-Volatile Organics		
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,4,5-Trichlorophenol in ug/L	3,600	10 U
2,4,6-Trichlorophenol in ug/L	2.4	10 U
2,4-Dichlorophenol in ug/L	190	10 U
2,4-Dimethylphenol in ug/L	550	10 U
2,4-Dinitrophenol in ug/L	3,500	30 U
2-Chloronaphthalene in ug/L	1,000	1 U
2-Chlorophenol in ug/L	97	10 U
2-Methylphenol in ug/L		10 U
2-Nitroaniline in ug/L		3 U
2-Nitrophenol in ug/L		10 U
3 & 4 Methylphenol in ug/L		20 U
3-Nitroaniline in ug/L		3 U

Table 4B - Groundwater Quality Data for REC 3 - Heavy Duty Shop Sump

K-CWorldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC3-MW-01 6/7/2012
4,6-Dinitro-2-methylphenol in ug/L		30 U
4-Bromophenyl phenyl ether in ug/L		1 U
4-Chloro-3-methylphenol in ug/L		10 U
4-Chloroaniline in ug/L		3 U
4-Chlorophenyl phenyl ether in ug/L		1 U
4-Nitroaniline in ug/L		10 U
4-Nitrophenol in ug/L		10 U
Benzoic acid in ug/L		50 U
Benzyl alcohol in ug/L		10 U
Benzyl butyl phthalate in ug/L	8.2	1 U
Bis(2-chloro-1-methylethyl) ether in ug/L	37	10 U
Bis(2-chloroethoxy)methane in ug/L		1 U
Bis(2-chloroethyl) ether in ug/L	0.53	10 U
Bis(2-ethylhexyl) phthalate in ug/L	2.2	10 U
Carbazole in ug/L		1 U
Dibenzofuran in ug/L		1 U
Diethyl phthalate in ug/L	28,000	1 U
Dimethyl phthalate in ug/L	1,100,000	1 U
Di-n-butyl phthalate in ug/L	2,900	1 U
Di-n-octyl phthalate in ug/L		1 U
Hexachlorobenzene in ug/L	0.00029	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Hexachlorocyclopentadiene in ug/L	1,100	3 U
Hexachloroethane in ug/L	3.3	1 U
Isophorone in ug/L	600	1 U
Nitrobenzene in ug/L	690	1 U
N-Nitroso-di-n-propylamine in ug/L	0.51	10 U
N-Nitrosodiphenylamine in ug/L	6	1 U
Pentachlorophenol in ug/L	1.5	10 U
Phenol in ug/L	560,000	10 U
2,4-Dinitrotoluene in ug/L	3.4	1 U
2,6-Dinitrotoluene in ug/L		1 U
2-Methylnaphthalene in ug/L		1 U
Field Parameters		
Dissolved Oxygen in mg/L		0.29
Eh (ORP) in mVolts		22.7
pH in pH Units		7.8
Specific Conductance in us/cm		17.829
Temperature in deg C		13.1
Turbidity in NTU		7.03

Notes

Concentrations in shaded cells exceed groundwater screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 5A - Soil Quality Data for REC 5 - Dutch Ovens 1-5

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC5-MW-01 6/5/2012 (6.5-7.5 ft.	
Metals				
Antimony in mg/kg			1	U
Arsenic in mg/kg	20	20	18.1	
Beryllium in mg/kg			1	U
Cadmium in mg/kg	2	2	1	U
Chromium (Total) in mg/kg			20.5	
Copper in mg/kg			28.8	
Lead in mg/kg	250	1,000	5.28	
Mercury in mg/kg	2	2	0.1	U
Nickel in mg/kg			41.1	
Selenium in mg/kg			1	U
Silver in mg/kg			1	U
Thallium in mg/kg			1	U
Zinc in mg/kg			37	
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05	U
1,1,1-Trichloroethane in mg/kg	2	2	0.05	U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05	U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05	U
1,1-Dichloroethane in mg/kg			0.05	U
1,1-Dichloroethene in mg/kg			0.05	U
1,1-Dichloropropene in mg/kg			0.05	U
1,2,3-Trichlorobenzene in mg/kg			0.25	U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05	U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25	U
1,2,4-Trimethylbenzene in mg/kg			0.05	U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5	U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05	U
1,2-Dichlorobenzene in mg/kg			0.05	U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05	U
1,2-Dichloropropane in mg/kg			0.05	U
1,3,5-Trimethylbenzene in mg/kg			0.05	U
1,3-Dichlorobenzene in mg/kg			0.05	U
1,3-Dichloropropane in mg/kg			0.05	U
1,4-Dichlorobenzene in mg/kg			0.05	U
2,2-Dichloropropane in mg/kg			0.05	U
2-Butanone in mg/kg			0.5	U
2-Chlorotoluene in mg/kg			0.05	U
2-Hexanone in mg/kg			0.5	U
4-Chlorotoluene in mg/kg			0.05	U
4-Methyl-2-pentanone in mg/kg			0.5	U
Acetone in mg/kg			0.5	U
Benzene in mg/kg	0.03	0.03	0.03	U
Bromobenzene in mg/kg			0.05	U
Bromodichloromethane in mg/kg	16	2,100	0.05	U
Bromoform in mg/kg	130	17,000	0.05	U
Bromomethane in mg/kg			0.5	U
Carbon tetrachloride in mg/kg	14	1,900	0.05	U
Chlorobenzene in mg/kg			0.05	U
Chloroethane in mg/kg			0.5	U
Chloroform in mg/kg			0.05	U
Chloromethane in mg/kg			0.5	U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05	U
cis-1,3-Dichloropropene in mg/kg			0.05	U
Dibromochloromethane in mg/kg	12	1,600	0.05	U
Dibromomethane in mg/kg			0.05	U
Dichlorodifluoromethane in mg/kg			0.5	UJ
Ethylbenzene in mg/kg	6	6	0.05	U
Hexachlorobutadiene in mg/kg	13	1,700	0.25	U

Table 5A - Soil Quality Data for REC 5 - Dutch Ovens 1-5

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC5-MW-01 6/5/2012 (6.5-7.5 ft.	
Isopropylbenzene in mg/kg			0.05	U
Methylene chloride in mg/kg	0.02	0.02	0.5	U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05	U
n-Propylbenzene in mg/kg			0.05	U
p-Isopropyltoluene in mg/kg			0.05	U
sec-Butylbenzene in mg/kg			0.05	U
Styrene in mg/kg			0.05	U
tert-Butylbenzene in mg/kg			0.05	U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025	U
Toluene in mg/kg	7	7	0.05	U
trans-1,2-Dichloroethene in mg/kg			0.05	U
trans-1,3-Dichloropropene in mg/kg			0.05	U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03	U
Trichlorofluoromethane in mg/kg			0.5	U
Vinyl chloride in mg/kg	0.67	88	0.05	U
m,p-Xylenes in mg/kg	16,000	700,000	0.1	U
o-Xylene in mg/kg	16,000	700,000	0.05	U
Xylenes (total) in mg/kg	9	9	ND	
Naphthalene in mg/kg	5	5	0.05	U

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 5B - Groundwater Quality Data for REC 5 - Dutch Ovens 1-5

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC5-MW-01 6/8/2012	REC5-MW-01 FD 6/8/2012
Dissolved Metals			
Dissolved Antimony in ug/L	640	3.96	8.95
Dissolved Arsenic in ug/L	5	201	235
Dissolved Beryllium in ug/L	270	1 U	1 U
Dissolved Cadmium in ug/L	8.8	1 U	3.87
Dissolved Chromium (Total) in ug/L		52	72.7
Dissolved Copper in ug/L	2.4	44.9 J	167 J
Dissolved Lead in ug/L	8.1	37.3 J	174 J
Dissolved Mercury in ug/L	0.15	0.12 J	0.41 J
Dissolved Nickel in ug/L	8.2	3.37	10.8
Dissolved Selenium in ug/L	71	1 U	1.11
Dissolved Silver in ug/L	1.9	1 U	1 U
Dissolved Thallium in ug/L	0.47	1 U	1 U
Dissolved Zinc in ug/L	81	42.3 J	203 J
Total Metals			
Total Antimony in ug/L	640	9.02	9.86
Total Arsenic in ug/L	5	218	236
Total Beryllium in ug/L	270	1 U	1 U
Total Cadmium in ug/L	8.8	5.22	5.26
Total Chromium (Total) in ug/L		83.8	84.8
Total Copper in ug/L	2.4	226	225
Total Lead in ug/L	8.1	234	242
Total Mercury in ug/L	0.15	0.57	0.55
Total Nickel in ug/L	8.2	14.8	14.7
Total Selenium in ug/L	71	1.51	1.68
Total Silver in ug/L	1.9	1 U	1 U
Total Thallium in ug/L	0.47	1 U	1 U
Total Zinc in ug/L	81	274	274
Conventional Chemistry Parameters			
Total Suspended Solids in mg/L		50	
Volatile Organic Compounds			
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U	
1,1,1-Trichloroethane in ug/L	11,000	1 U	
1,1,2,2-Tetrachloroethane in ug/L	4	1 U	
1,1,2-Trichloroethane in ug/L	7.9	1 U	
1,1-Dichloroethane in ug/L	2,300	1 U	
1,1-Dichloroethene in ug/L	3.2	1 U	
1,1-Dichloropropene in ug/L		1 U	
1,2,3-Trichlorobenzene in ug/L		1 U	
1,2,3-Trichloropropane in ug/L		1 U	
1,2,4-Trichlorobenzene in ug/L	2	1 U	
1,2,4-Trimethylbenzene in ug/L	24	1 U	
1,2-Dibromo-3-chloropropane in ug/L		10 U	
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U	
1,2-Dichlorobenzene in ug/L	1,300	1 U	
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U	
1,2-Dichloropropane in ug/L	15	1 U	
1,3,5-Trimethylbenzene in ug/L	25	1 U	
1,3-Dichlorobenzene in ug/L	960	1 U	
1,3-Dichloropropane in ug/L		1 U	
1,4-Dichlorobenzene in ug/L	190	1 U	
2,2-Dichloropropane in ug/L		1 U	
2-Butanone in ug/L	350,000	10 U	
2-Chlorotoluene in ug/L		1 U	
2-Hexanone in ug/L		10 U	
4-Chlorotoluene in ug/L		1 U	
4-Methyl-2-pentanone in ug/L	11,000	10 U	
Acetone in ug/L		10 U	
Benzene in ug/L	2.4	0.35 U	
Bromobenzene in ug/L		1 U	

Table 5B - Groundwater Quality Data for REC 5 - Dutch Ovens 1-5

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC5-MW-01 6/8/2012	REC5-MW-01 FD 6/8/2012
Bromodichloromethane in ug/L	0.09	1 U	
Bromoform in ug/L	140	1 UJ	
Bromomethane in ug/L	13	1 U	
Carbon tetrachloride in ug/L	0.22	1 U	
Chlorobenzene in ug/L	100	1 U	
Chloroethane in ug/L	12	1 U	
Chloroform in ug/L	1.2	1 U	
Chloromethane in ug/L	5.2	10 U	
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U	
cis-1,3-Dichloropropene in ug/L		1 U	
Dibromochloromethane in ug/L	0.22	1 U	
Dibromomethane in ug/L		1 U	
Dichlorodifluoromethane in ug/L	9.9	1 U	
Ethylbenzene in ug/L	2,100	1 U	
Hexachlorobutadiene in ug/L	0.81	1 U	
Isopropylbenzene in ug/L	720	1 U	
Methylene chloride in ug/L	94	5 U	
Methyl-Tert-Butyl Ether in ug/L	610	1 U	
n-Propylbenzene in ug/L		1 U	
p-Isopropyltoluene in ug/L		1 U	
sec-Butylbenzene in ug/L		1 U	
Styrene in ug/L	78	1 U	
tert-Butylbenzene in ug/L		1 U	
Tetrachloroethene (PCE) in ug/L	0.39	1 U	
Toluene in ug/L	15,000	1 U	
trans-1,2-Dichloroethene in ug/L	130	1 U	
trans-1,3-Dichloropropene in ug/L		1 U	
Trichloroethene (TCE) in ug/L	0.42	1 U	
Trichlorofluoromethane in ug/L	120	1 U	
Vinyl chloride in ug/L	0.35	0.2 U	
m,p-Xylenes in ug/L	310	2 U	
o-Xylene in ug/L	440	1 U	
Xylenes (total) in ug/L	310	ND	
Naphthalene in ug/L	170	1 U	
Field Parameters			
Dissolved Oxygen in mg/L		0.05	
Eh (ORP) in mVolts		-113.7	
pH in pH Units		8.51	
Specific Conductance in us/cm		384	
Temperature in deg C		23.16	
Turbidity in NTU		97.3	

Notes

Concentrations in shaded cells exceed groundwater screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 6A - Soil Quality Data for REC 6 (Latex Spill) + USTs 29, 67, 69

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	REC6-MW-01 6/28/2012 (6 ft.)	REC6-MW-01 FD 6/27/2012 (6 ft.)	UST29-MW-01 6/27/2012 (7-8 ft.)	UST29-MW-01 FD 6/27/2012 (7-8 ft	UST29-MW-01 6/27/2012 (8-9 ft.)	UST29-MW-01 FD 6/27/2012 (8-9 ft	UST69-MW-01 5/25/2012 (6-7 ft.)	UST69-MW-01 FD 5/25/2012 (6-7 ft
Total Petroleum Hydrocarbons										
Gasoline Range Hydrocarbons in mg/kg	100	100	9,700	7,900	150				2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000			1,700	1,500				
Oil Range Hydrocarbons in mg/kg	2,000	2,000			920	990				
Total TPH in mg/kg	2,000	2,000			2,620	2,490				
Metals										
Lead in mg/kg	250	1,000							2.91	2.1
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene in mg/kg							10 U	10 U		
Acenaphthylene in mg/kg							10 U	10 U		
Anthracene in mg/kg							10 U	12		
Benzo(g,h,i)perylene in mg/kg							10 U	12		
Fluoranthene in mg/kg							37	58		
Fluorene in mg/kg							10 U	10 U		
Phenanthrene in mg/kg							25	37		
Pyrene in mg/kg							32	49		
Naphthalene in mg/kg	5	5					10 U	10 U		
Benz(a)anthracene in mg/kg	1.4	180					18	30		
Benzo(a)pyrene in mg/kg	0.14	0.14					12	24		
Benzo(b)fluoranthene in mg/kg	1.4	180					15	30		
Benzo(k)fluoranthene in mg/kg	14	1,800					10 U	12		
Chrysene in mg/kg	140	18,000					20	34		
Dibenzo(a,h)anthracene in mg/kg	0.14	18					10 U	10 U		
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180					10 U	15		
Total cPAHs TEQ in mg/kg	0.14	2					17.0	33.5		
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U			0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U			0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			9.3	9.5	0.05 U	0.05 U			0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.4	0.42	0.05 U	0.05 U			0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			5.1	4.6	0.05 U	0.05 U			0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
1,4-Dioxane in mg/kg			0.5 U	0.5 U						
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 UJ	0.5 UJ
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	630	660	0.056	0.05 U			0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U			0.25 U	0.25 U
Isopropylbenzene in mg/kg			9.6	7.9	1.1	1			0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
n-Propylbenzene in mg/kg			7.6	6.9	0.83	0.76			0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.33	0.29	0.05 U	0.05 U			0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.27	0.22	0.05 U	0.05 U			0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U			0.025 U	0.025 U
Toluene in mg/kg	7	7	1.6	2.2	0.05 U	0.05 U			0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U			0.5 U	0.5 U
Vinyl acetate in mg/kg			0.5 U	0.5 U						
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U			0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	1,800	2,300	0.18	0.12			0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	450	500	0.05 U	0.05 U			0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	2,250	2,800	0.205	0.145			ND	ND
Naphthalene in mg/kg	5	5	0.9	1.3	0.2	0.19			0.05 U	0.05 U

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 6B - Groundwater Quality Data for REC 6 (Latex Spill) + USTs 29, 67, 69

K-C Worldwide Site Upland Area 110207

		REC 6 + USTs 29, 67					UST 69	
Chemical Name	Groundwater Screening Level	REC6-MW-01 7/2-6/2012	REC6-MW-01 FD 7/2-6/2012	REC6-MW-02 6/5/2012	UST29-MW-01 7/2/2012	UST29-MW-01 FD 7/2/2012	UST69-MW-01 6/8/2012	UST69-MW-01 FD 6/8/2012
Total Petroleum Hydrocarbons								
Gasoline Range Hydrocarbons in ug/L	1000	24,000	25,000	100 U	350		100 U	100 U
Diesel Range Hydrocarbons in ug/L	500				100 U	100 U		
Oil Range Hydrocarbons in ug/L	500				500 U	500 U		
Total TPHs in ug/L	500				ND	ND		
Dissolved Metals								
Dissolved Antimony in ug/L	640			1 U				
Dissolved Arsenic in ug/L	5			3.44				
Dissolved Beryllium in ug/L	270			1 U				
Dissolved Cadmium in ug/L	8.8			1 U				
Dissolved Chromium (Total) in ug/L				4.03				
Dissolved Copper in ug/L	2.4			2.56	0.18	0.19		
Dissolved Lead in ug/L	8.1			1 U	0.05 U	0.05 U	1 U	
Dissolved Mercury in ug/L	0.15			0.1 U	0.059	0.065		
Dissolved Nickel in ug/L	8.2			4.08	0.05 U	0.05 U		
Dissolved Selenium in ug/L	71			4.54 J	0.19	0.22		
Dissolved Silver in ug/L	1.9			1 U	0.085	0.09		
Dissolved Thallium in ug/L	0.47			1 U	0.29	0.31		
Dissolved Zinc in ug/L	81			1 U	0.16	0.18		
Total Metals								
Total Lead in ug/L	8.1						1 U	
Conventional Chemistry Parameters								
Formaldehyde in ug/L	1600	30 J	29 J	100 U				
Total Ammonia as Nitrogen in mg/L	0.035			8.27				
Dissolved Sulfide in mg/L				21.5				
Total Suspended Solids in mg/L		20 U	20 U	10 U	10 U	10 U	10 U	10 U
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene in ug/L	640				0.18	0.19		
Acenaphthylene in ug/L					0.05 U	0.05 U		
Anthracene in ug/L	26,000				0.059	0.065		
Benzo(g,h,i)perylene in ug/L					0.05 U	0.05 U		
Fluoranthene in ug/L	90				0.19	0.22		
Fluorene in ug/L	3,500				0.085	0.09		
Phenanthrene in ug/L					0.29	0.31		
Pyrene in ug/L	2,600				0.16	0.18		
Naphthalene in ug/L	170				0.064	0.065		
Benz(a)anthracene in ug/L	0.018				0.036	0.042		
Benzo(a)pyrene in ug/L	0.018				0.018	0.023		
Benzo(b)fluoranthene in ug/L	0.018				0.026	0.033		
Benzo(k)fluoranthene in ug/L	0.018				0.01 U	0.011		
Chrysene in ug/L	0.018				0.037	0.041		
Dibenzo(a,h)anthracene in ug/L	0.018				0.01 U	0.01 U		
Indeno(1,2,3-cd)pyrene in ug/L	0.018				0.01 U	0.011		
Total cPAHs TEQ in ug/L	0.018				0.0261	0.0336		
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U	1 U	1 U	1 U		1 U	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U	1 U	1 U	1 U		1 U	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U	1 U	1 U	1 U		1 U	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U	1 U	1 U	1 U		1 U	1 U
1,1-Dichloroethane in ug/L	2,300	1 U	1 U	1 U	1 U		1 U	1 U
1,1-Dichloroethene in ug/L	3.2	1 U	1 U	1 U	1 U		1 U	1 U
1,1-Dichloropropene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
1,2,3-Trichlorobenzene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
1,2,3-Trichloropropane in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U	1 U	1 U	1 U		1 U	1 U
1,2,4-Trimethylbenzene in ug/L	24	9.3	8.9	1 U	1 U		1 U	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U	10 U	10 U	10 U		10 U	10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U	1 U	1 U	1 U		10 U	10 U
1,2-Dichlorobenzene in ug/L	1,300	1 U	1 U	1 U	1 U		1 U	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U	1 U	1 U	1 U		1 U	1 U
1,2-Dichloropropane in ug/L	15	1 U	1 U	1 U	1 U		1 U	1 U
1,3,5-Trimethylbenzene in ug/L	25	4.3	4.2	1 U	1 U		1 U	1 U
1,3-Dichlorobenzene in ug/L	960	1 U	1 U	1 U	1 U		1 U	1 U
1,3-Dichloropropane in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
1,4-Dichlorobenzene in ug/L	190	1 U	1 U	1 U	1 U		1 U	1 U
1,4-Dioxane in ug/L		10 U	10 U					
2,2-Dichloropropane in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
2-Butanone in ug/L	350,000	10 U	10 U	10 U	10 U		10 U	10 U
2-Chlorotoluene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
2-Hexanone in ug/L		10 U	10 U	10 U	10 U		10 U	10 U
4-Chlorotoluene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U	10 U	10 U	10 U		10 U	10 U
Acetone in ug/L		14	14	10 U	11		10 U	10 U
Benzene in ug/L	2.4	0.35 U	0.35 U	0.35 U	0.35 U		0.35 U	0.35 U
Bromobenzene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
Bromodichloromethane in ug/L	0.09	1 U	1 U	1 U	1 U		1 U	1 U
Bromoform in ug/L	140	1 U	1 U	1 UJ	1 U		1 U	1 U
Bromomethane in ug/L	13	1 U	1 U	1 U	1 U		1 U	1 U
Carbon tetrachloride in ug/L	0.22	1 U	1 U	1 U	1 U		1 U	1 U
Chlorobenzene in ug/L	100	1 U	1 U	1 U	1 U		1 U	1 U
Chloroethane in ug/L	12	1 U	1 U	1 U	1 U		1 U	1 U
Chloroform in ug/L	1.2	1 U	1 U	1 U	1 U		1 U	1 U
Chloromethane in ug/L	5.2	10 U	10 U	10 U	10 U		10 U	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U	1 U	1 U	1 U		1 U	1 U
cis-1,3-Dichloropropene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
Dibromochloromethane in ug/L	0.22	1 U	1 U	1 U	1 U		1 U	1 U
Dibromomethane in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
Dichlorodifluoromethane in ug/L	9.9	1 U	1 U	1 UJ	1 U		1 U	1 U
Ethylbenzene in ug/L	2,100	2,000	2,000	1 U	10		1 U	1 U
Hexachlorobutadiene in ug/L	0.81	1 U	1 U	1 U	1 U		1 U	1 U
Isopropylbenzene in ug/L	720	14	13	1 U	1.2		1 U	1 U
Methylene chloride in ug/L	94	5 U	5 U	5 U	5 U		5 U	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U	1 U	1 U	1 U		1 U	1 U
n-Propylbenzene in ug/L		7.7	7.4	1 U	1 U		1 U	1 U
p-Isopropyltoluene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
sec-Butylbenzene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
Styrene in ug/L	78	1 U	1 U	1 U	1 U		1 U	1 U
tert-Butylbenzene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U

Table 6B - Groundwater Quality Data for REC 6 (Latex Spill) + USTs 29, 67, 69

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	REC6-MW-01 7/2-6/2012	REC6-MW-01 FD 7/2-6/2012	REC6-MW-02 6/5/2012	UST29-MW-01 7/2/2012	UST29-MW-01 FD 7/2/2012	UST69-MW-01 6/8/2012	UST69-MW-01 FD 6/8/2012
Tetrachloroethene (PCE) in ug/L	0.39	1 U	1 U	1 U	1 U		1 U	1 U
Toluene in ug/L	15,000	18	17	1 U	1 U		1 U	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U	1 U	1 U	1 U		1 U	1 U
trans-1,3-Dichloropropene in ug/L		1 U	1 U	1 U	1 U		1 U	1 U
Trichloroethene (TCE) in ug/L	0.42	1 U	1 U	1 U	1 U		1 U	1 U
Trichlorofluoromethane in ug/L	120	1 U	1 U	1 U	1 U		1 U	1 U
Vinyl acetate in ug/L	7,800	10 U	10 U					
Vinyl chloride in ug/L	0.35	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U
m,p-Xylenes in ug/L	310	6,900	6,900	2 U	53		2 U	2 U
o-Xylene in ug/L	440	1,600	1,600	1 U	19		1 U	1 U
Xylenes (total) in ug/L	310	8,500	8,500	ND	72.0		ND	ND
Naphthalene in ug/L	170	1.7	1.4				1 U	1 U
Semi-Volatile Organics								
1,2,4-Trichlorobenzene in ug/L	2			1 U				
1,2-Dichlorobenzene in ug/L	1,300			1 U				
1,3-Dichlorobenzene in ug/L	960			1 U				
1,4-Dichlorobenzene in ug/L	190			1 U				
2,4,5-Trichlorophenol in ug/L	3,600			10 U				
2,4,6-Trichlorophenol in ug/L	2.4			10 U				
2,4-Dichlorophenol in ug/L	190			10 U				
2,4-Dimethylphenol in ug/L	550			10 U				
2,4-Dinitrophenol in ug/L	3,500			30 U				
2-Chloronaphthalene in ug/L	1,000			1 U				
2-Chlorophenol in ug/L	97			10 U				
2-Methylphenol in ug/L				10 U				
2-Nitroaniline in ug/L				3 U				
2-Nitrophenol in ug/L				10 U				
3 & 4 Methylphenol in ug/L				20 U				
3-Nitroaniline in ug/L				3 U				
4,6-Dinitro-2-methylphenol in ug/L				30 U				
4-Bromophenyl phenyl ether in ug/L				1 U				
4-Chloro-3-methylphenol in ug/L				10 U				
4-Chloroaniline in ug/L				3 U				
4-Chlorophenyl phenyl ether in ug/L				1 U				
4-Nitroaniline in ug/L				10 U				
4-Nitrophenol in ug/L				10 U				
Acenaphthene in ug/L	640			1 U				
Acenaphthylene in ug/L				1 U				
Anthracene in ug/L	26,000			1 U				
Benzo(g,h,i)perylene in ug/L				1 U				
Benzoic acid in ug/L				50 U				
Benzyl alcohol in ug/L				10 U				
Benzyl butyl phthalate in ug/L	8.2			1 U				
Bis(2-chloro-1-methylethyl) ether in ug/L	37			10 U				
Bis(2-chloroethoxy)methane in ug/L				1 U				
Bis(2-chloroethyl) ether in ug/L	0.53			10 U				
Bis(2-ethylhexyl) phthalate in ug/L	2.2			10 U				
Carbazole in ug/L				1 U				
Dibenzofuran in ug/L				1 U				
Diethyl phthalate in ug/L	28,000			1 U				
Dimethyl phthalate in ug/L	1,100,000			1 U				
Di-n-butyl phthalate in ug/L	2,900			1 U				
Di-n-octyl phthalate in ug/L				1 U				
Fluoranthene in ug/L	90			1 U				
Fluorene in ug/L	3,500			1 U				
Hexachlorobenzene in ug/L	0.00029			1 U				
Hexachlorobutadiene in ug/L	0.81			1 U				
Hexachlorocyclopentadiene in ug/L	1,100			3 U				
Hexachloroethane in ug/L	3.3			1 U				
Isophorone in ug/L	600			1 U				
Nitrobenzene in ug/L	690			1 U				
N-Nitroso-di-n-propylamine in ug/L	0.51			10 U				
N-Nitrosodiphenylamine in ug/L	6			1 U				
Pentachlorophenol in ug/L	1.5			10 U				
Phenanthrene in ug/L				1 U				
Phenol in ug/L	560,000			10 U				
Pyrene in ug/L	2,600			1 U				
Benz(a)anthracene in ug/L	0.018			1 U				
Benzo(a)pyrene in ug/L	0.018			1 U				
Benzo(b)fluoranthene in ug/L	0.018			1 U				
Benzo(k)fluoranthene in ug/L	0.018			1 U				
Chrysene in ug/L	0.018			1 U				
Dibenzo(a,h)anthracene in ug/L	0.018			1 U				
Indeno(1,2,3-cd)pyrene in ug/L	0.018			1 U				
2,4-Dinitrotoluene in ug/L	3.4			1 U				
2,6-Dinitrotoluene in ug/L				1 U				
2-Methylnaphthalene in ug/L				1 U				
Naphthalene in ug/L	170			1 U				
Field Parameters								
Dissolved Oxygen in mg/L		1.39		0.02	0.25		0.24	
Eh (ORP) in mVolts		7.6		-233	-46.9		-104.6	
pH in pH Units		6.46		6.97	6.52		7.12	
Specific Conductance in us/cm		232		1,935	264.7		292	
Temperature in deg C		16.5		14.85	17		15.9	
Turbidity in NTU		11.7		5.38	19.4		4.58	

Notes

Concentrations in shaded cells exceed groundwater screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 7 - Groundwater Quality Data for REC 7 (East Waterway Shoreline)

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-01 02/17/12	MW-01 06/06/12	MW-02 02/17/12	MW-02 06/06/12	MW-05 02/17/12	MW-05 06/05/12	MW-06 02/17/12	MW-06 06/07/12	NRP-MW-02 06/05/12	NRP-MW-03 06/05/12 FD	NRP-MW-03 06/05/12	OMS-MW-01 06/06/12	REC3-MW-01 06/07/12	REC6-MW-02 06/05/12	REC7-MW-01 06/05/12	REC7-MW-02 06/05/12	REC7-MW-03 06/06/12	REC7-MW-04 06/06/12	UST70-MW-02 06/07/12
Total Petroleum Hydrocarbons																				
Gasoline Range Hydrocarbons in ug/L	1000	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U		100 U	100 U		100 U					
Diesel Range Hydrocarbons in ug/L	500	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U		50 U	50 U	50 U						50 U
Oil Range Hydrocarbons in ug/L	500	250 U	250 UJ	250 U	250 UJ	250 U	250 U	250 U	250 UJ	250 U		250 U	250 UJ	250 UJ						250 UJ
Total TPHs in ug/L	500	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND						ND
Dissolved Metals																				
Dissolved Antimony in ug/L	640		1 U		0.69 J		1 U		1 U	1 U		1 U	1.1	1.2	1 U	1 U	1 U	0.93 J	1.8	2.27
Dissolved Arsenic in ug/L	5		0.95		1.35	4.68	3.92	5.2	6.38	1 U		2.11	0.76	2.22	3.44	2.52	1 U	1.9	2.64	5.23
Dissolved Beryllium in ug/L	270		0.02 U		0.0023 J		1 U		1 U	1 U		1 U	0.0012 J	0.0012 J	1 U	1 U	1 U	0.0009 J	0.009 J	0.0014 J
Dissolved Cadmium in ug/L	8.8		0.096		0.077	1 U	1 U	1 U	1 U	1 U		1 U	0.079	0.776	1 U	1 U	1 U	0.094	0.118	0.135
Dissolved Chromium (Total) in ug/L			0.34		1.13	1.92	1.58	4.28	5.26	1 U		5.48	0.35	0.09 J	4.03	1.74	1.02	0.31	0.15 J	0.18 J
Dissolved Copper in ug/L	2.4		2.56		1.36	7.09	5.21	4.14	3.29	1 U		1.84	1.07	0.568	2.56	4.41	1 U	1.48	0.311	1.09
Dissolved Lead in ug/L	8.1	5 U	0.097	1 U	6.42	1 U	1 U	1 U	1 U	1 U		1 U	0.056	0.022	1 U	1 U	1 U	0.045	1.49	0.125
Dissolved Mercury in ug/L	0.15		0.1 U		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dissolved Nickel in ug/L	8.2		2.65		12.3	3.48	3.38	5.95	7.81	2.12		2.31	6.75	4.95	4.08	4.55	2.97	0.73	6.22	2.01
Dissolved Selenium in ug/L	71		1 U		1 U	15.3	13.8 J	12.4	16.3	1.11 J		4.49 J	0.8 J	1 U	4.54 J	8.59 J	1 U	1 U	1 U	1 U
Dissolved Silver in ug/L	1.9		0.009 J		0.013 J	1 U	1 U	1 U	1 U	1 U		1 U	0.005 J	0.02 U	1 U	1 U	1 U	0.013 J	0.03	0.02 U
Dissolved Thallium in ug/L	0.47		0.005 J		0.005 J		1 U		1 U	1 U		1 U	0.026	0.007 J	1 U	1 U	1 U	0.006 J	0.012 J	0.014 J
Dissolved Zinc in ug/L	81		8.84		2.31	1.61	1 U	1.49	13	4.44		3.57	3.99	2.4	1 U	17	1 U	2.58	8.3	116
Total Metals																				
Total Antimony in ug/L	640				0.57 J				1 U								1 U		2.06	
Total Arsenic in ug/L	5				1.33				5.88								1 U		2.66	
Total Beryllium in ug/L	270				0.0005 J				1 U								1 U		0.0005 J	
Total Cadmium in ug/L	8.8				0.035				1 U								1 U		0.105	
Total Chromium (Total) in ug/L					0.38				6.62								1.06		0.08 J	
Total Copper in ug/L	2.4				0.718				3.85								1 U		0.212	
Total Lead in ug/L	8.1				0.198				1 U								1 U		0.421	
Total Mercury in ug/L	0.15				0.1 U				0.1 U								0.1 U		0.1 U	
Total Nickel in ug/L	8.2				13.1				7.82								2.62		6.25	
Total Selenium in ug/L	71				1 U				14.6								1 U		1 U	
Total Silver in ug/L	1.9				0.02 U				1 U								1 U		0.004 J	
Total Thallium in ug/L	0.47				0.004 J				1 U								1 U		0.008 J	
Total Zinc in ug/L	81				1.7				3.96								1 U		7.58	
Conventional Chemistry Parameters																				
Formaldehyde in ug/L															100 U					
Total Ammonia as Nitrogen in mg/L	0.035		0.05 U		0.118		0.662		15.5	0.383		11.3	0.023 J	0.041 J	8.27	1.9	1.21	0.05 U	0.05 U	0.575
Total Dissolved Solids in mg/L		22,632		4,771		2,775		2,726												
Total Sulfide in mg/L			0.05 U		0.05 U		3.01		0.05 U	0.506		0.2 U	0.05 U	0.05 U	21.5	0.429	0.14	0.05 U	0.05 U	0.05 U
Total Suspended Solids in mg/L		10 U	12	20	10 U	100	10 U	41	13	10 U		19	17	17	10 U	10 U	14	10 U	10 U	10 U
Polycyclic Aromatic Hydrocarbons (PAHs)																				
Acenaphthene in ug/L	640	0.1 U	0.05 U	0.1 U	0.05 U	0.28	0.22	0.1 U	0.05 U	0.05 U		0.6	0.05 U	0.05 U						0.15
Acenaphthylene in ug/L		0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U						0.05 U
Anthracene in ug/L	26,000	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U						0.05 U
Benzo(g,h,i)perylene in ug/L		0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.05 U	0.05 UJ	0.05 UJ						0.05 UJ
Fluoranthene in ug/L	90	0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.075	0.05 UJ	0.05 UJ						0.05 UJ
Fluorene in ug/L	3,500	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.12	0.05 U	0.05 U						0.05 U
Phenanthrene in ug/L		0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.2	0.05 U	0.05 U						0.05 U
Pyrene in ug/L	2,600	0.1 U	0.05 UJ	0.1 U	0.05 UJ	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.067	0.05 UJ	0.05 UJ						0.05 UJ
Naphthalene in ug/L	170	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U						0.19
Benz(a)anthracene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.014	0.01 UJ	0.01 UJ						0.01 UJ
Benzo(a)pyrene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.01 U	0.01 UJ	0.01 UJ						0.01 UJ
Benzo(b)fluoranthene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.01 U	0.01 UJ	0.01 UJ						0.01 UJ
Benzo(k)fluoranthene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.01 U	0.01 UJ	0.01 UJ						0.01 UJ
Chrysene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.011	0.01 UJ	0.01 UJ						0.01 UJ
Dibenzo(a,h)anthracene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.01 U	0.01 UJ	0.01 UJ						0.01 UJ
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.1 U	0.01 UJ	0.1 U	0.01 UJ	0.1 U	0.01 U	0.1 U	0.01 U	0.01 U		0.01 U	0.01 UJ	0.01 UJ						0.01 UJ
Total cPAHs TEQ in ug/L	0.018	ND	ND	ND	ND	ND	ND	ND	ND	ND		0.00851	ND	ND						ND
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane in ug/L	7.4		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane in ug/L	11,000		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane in ug/L	4		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane in ug/L	7.9		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane in ug/L	2,300		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene in ug/L	3.2		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene in ug/L	2		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene in ug/L	24		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 7 - Groundwater Quality Data for REC 7 (East Waterway Shoreline)

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-01 02/17/12	MW-01 06/06/12	MW-02 02/17/12	MW-02 06/06/12	MW-05 02/17/12	MW-05 06/05/12	MW-06 02/17/12	MW-06 06/07/12	NRP-MW-02 06/05/12	NRP-MW-03 06/05/12 FD	NRP-MW-03 06/05/12	OMS-MW-01 06/06/12	REC3-MW-01 06/07/12	REC6-MW-02 06/05/12	REC7-MW-01 06/05/12	REC7-MW-02 06/05/12	REC7-MW-03 06/06/12	REC7-MW-04 06/06/12	UST70-MW-02 06/07/12
1,2-Dibromo-3-chloropropane in ug/L			10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U
1,2-Dibromoethane (EDB) in ug/L	0.74		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene in ug/L	1,300		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane in ug/L	15		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene in ug/L	25		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene in ug/L	960		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene in ug/L	190		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-Dichloropropane in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone in ug/L	350,000		10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorotoluene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone in ug/L			10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorotoluene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone in ug/L	11,000		10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone in ug/L			10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene in ug/L	2.4	1 U	0.35 U	1 U	0.35 U	1 U	0.35 U	1 U	0.35 U	0.35 U		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Bromobenzene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane in ug/L	0.09		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform in ug/L	140		1 UJ		1 UJ		1 UJ		1 U	1 UJ		1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane in ug/L	13		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride in ug/L	0.22		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene in ug/L	100		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane in ug/L	12		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform in ug/L	1.2		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane in ug/L	5.2		10 U		10 U		10 U		10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane in ug/L	0.22		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U
Dibromomethane in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane in ug/L	9.9		1 U		1 U		1 UJ		1 U	1 UJ		1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U
Ethylbenzene in ug/L	2,100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene in ug/L	0.81		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene in ug/L	720		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride in ug/L	94		5 UJ		5 UJ		5 U		5 U	5 U		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl-Tert-Butyl Ether in ug/L	610		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene in ug/L	78		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE) in ug/L	0.39		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene in ug/L	15,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene in ug/L	130		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene in ug/L			1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE) in ug/L	0.42		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane in ug/L	120		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride in ug/L	0.35		0.2 U		0.2 U		0.2 U		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
m,p-Xylenes in ug/L	310		2 U		2 U		2 U		2 U	2 U		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
o-Xylene in ug/L	440		1 U		1 U		1 U		1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (total) in ug/L	310	3 U	ND	3 U	ND	3 U	ND	3 U	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organics																				
1,2,4-Trichlorobenzene in ug/L	2		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene in ug/L	1,300		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene in ug/L	960		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene in ug/L	190		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,4,5-Trichlorophenol in ug/L	3,600		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol in ug/L	2.4		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol in ug/L	190		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol in ug/L	550		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol in ug/L	3,500		30 U		30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
2-Chloronaphthalene in ug/L	1,000		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Chlorophenol in ug/L	97		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline in ug/L			3 U		3 U	1 U	3 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2-Nitrophenol in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3 & 4 Methylphenol in ug/L			20 U		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
3-Nitroaniline in ug/L			3 U		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4,6-Dinitro-2-methylphenol in ug/L			30 U		30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Table 7 - Groundwater Quality Data for REC 7 (East Waterway Shoreline)

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-01 02/17/12	MW-01 06/06/12	MW-02 02/17/12	MW-02 06/06/12	MW-05 02/17/12	MW-05 06/05/12	MW-06 02/17/12	MW-06 06/07/12	NRP-MW-02 06/05/12	NRP-MW-03 06/05/12 FD	NRP-MW-03 06/05/12	OMS-MW-01 06/06/12	REC3-MW-01 06/07/12	REC6-MW-02 06/05/12	REC7-MW-01 06/05/12	REC7-MW-02 06/05/12	REC7-MW-03 06/06/12	REC7-MW-04 06/06/12	UST70-MW-02 06/07/12
4-Bromophenyl phenyl ether in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Chloro-3-methylphenol in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline in ug/L			3 U		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Chlorophenyl phenyl ether in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Nitroaniline in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene in ug/L	640		1 U								1 U				1 U	2.7	1 U	1 U	1 U	
Acenaphthylene in ug/L			1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Anthracene in ug/L	26,000		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benzo(g,h,i)perylene in ug/L			1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benzoic acid in ug/L			50 U		50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzyl alcohol in ug/L			10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl butyl phthalate in ug/L	8.2		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bis(2-chloro-1-methylethyl) ether in ug/L	37		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bis(2-chloroethyl) ether in ug/L	0.53		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl) phthalate in ug/L	2.2		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibenzofuran in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl phthalate in ug/L	28,000		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dimethyl phthalate in ug/L	1,100,000		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate in ug/L	2,900		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-octyl phthalate in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene in ug/L	90		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Fluorene in ug/L	3,500		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Hexachlorobenzene in ug/L	0.00029		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene in ug/L	0.81		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene in ug/L	1,100		3 U		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Hexachloroethane in ug/L	3.3		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isophorone in ug/L	600		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nitrobenzene in ug/L	690		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
N-Nitroso-di-n-propylamine in ug/L	0.51		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine in ug/L	6		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol in ug/L	1.5		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene in ug/L			1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Phenol in ug/L	560,000		10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene in ug/L	2,600		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benz(a)anthracene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benzo(a)pyrene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benzo(b)fluoranthene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Benzo(k)fluoranthene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Chrysene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Dibenzo(a,h)anthracene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
Indeno(1,2,3-cd)pyrene in ug/L	0.018		1 U								1 U				1 U	1 U	1 U	1 U	1 U	
2,4-Dinitrotoluene in ug/L	3.4		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2,6-Dinitrotoluene in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Methylnaphthalene in ug/L			1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene in ug/L	170										1 U				1 U	1 U	1 U	1 U	1 U	
Field Parameters																				
Conductivity in us/cm		36,646		9,109		5,773		3,809												
Dissolved Oxygen in mg/L		6.31	6.99	6.6	1.44	1.53	0.07	4.96	0.23	0.35		2.01	4.69	0.29	0.02	0.39	1.04	6.92	0.19	0.47
Eh (ORP) in mVolts		118	114.1	-102	87.5	-222	-78.1	-141	-39.9	-1.3		-98.9	115.1	22.7	-233	-88.8	-128.1	100.6	-154.7	-62.3
pH in pH Units		7.43	7.61	8.85	8.04	6.67	5.8	7.39	7.34	6.13		6.51	7.16	7.8	6.97	0.61	6.91	7.76	8.11	7.28
Specific Conductance in us/cm			19,290		19,510		3,554		3,347	770		1,410	19,300	17,829	1,935	3,340	872	21,420	21,882	8,768
Temperature in deg C		8.3	14.57	10.4	14.67	11	12.94	17.2	17.73	13.37		12.6	14.5	13.1	14.85	12.6	14	13.75	13.2	23.2
Turbidity in NTU		4.7	2.47	79.4	2.01	70	0.73	25.8	22.1	1.9		37.4	15.8	7.03	5.38	0.58	1.21	1.39	2.49	1.47

Notes

Concentrations in shaded cells indicate value exceeds Preliminary Groundwater Screening Level for Unrestricted Land Use

J - Analyte was positively identified. The reported result is an estimate.
U - Analyte was not detected at or above the reported result.
UJ - Analyte was not detected at or above the reported estimate

Table 8A - Soil Quality Data for USTs 68, 68R

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	UST68-MW-01 5/25/2012 (7-8 ft.)	UST68-MW-02 5/30/2012 (10-11 ft.	UST68-MW-02 FD 5/30/2012 (10-11	UST68-MW-04 5/24/2012 (11-12 ft.	UST68-MW-04 FD 5/24/2012 (11-12	UST68-MW-05 5/24/2012 (7-8 ft.)	UST68-MW-05 5/24/2012 (12-13 ft.
Total Petroleum Hydrocarbons									
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	4.9	2 U	2 U	2 U	2 U	2 U
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND	ND
Naphthalene in mg/kg	5	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 8B - Groundwater Quality Data for USTs 68, 68R

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	UST68-MW-01 6/6/2012	UST68-MW-02 6/6/2012	UST68-MW-04 6/6/2012	UST68-MW-05 6/6/2012
Total Petroleum Hydrocarbons					
Gasoline Range Hydrocarbons in ug/L	1000	100 U	100 U	100 U	100 U
Conventional Chemistry Parameters					
Total Suspended Solids in mg/L		10 U	10 U	10 U	10 U
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U	1 U	1 U	1 U
1,1-Dichloroethane in ug/L	2,300	1 U	1 U	1 U	1 U
1,1-Dichloroethene in ug/L	3.2	1 U	1 U	1 U	1 U
1,1-Dichloropropene in ug/L		1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene in ug/L		1 U	1 U	1 U	1 U
1,2,3-Trichloropropane in ug/L		1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene in ug/L	24	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 UJ	10 UJ	10 UJ	10 UJ
1,2-Dibromoethane (EDB) in ug/L	0.74	0.01 U	0.01 U	0.01 U	0.01 U
1,2-Dichlorobenzene in ug/L	1,300	1 U	1 U	1 U	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U	1 U	1 U	1 U
1,2-Dichloropropane in ug/L	15	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene in ug/L	960	1 U	1 U	1 U	1 U
1,3-Dichloropropane in ug/L		1 U	1 U	1 U	1 U
1,4-Dichlorobenzene in ug/L	190	1 U	1 U	1 U	1 U
2,2-Dichloropropane in ug/L		1 U	1 U	1 U	1 U
2-Butanone in ug/L	350,000	10 U	10 U	10 U	10 U
2-Chlorotoluene in ug/L		1 U	1 U	1 U	1 U
2-Hexanone in ug/L		10 U	10 U	10 U	10 U
4-Chlorotoluene in ug/L		1 U	1 U	1 U	1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U	10 U	10 U	10 U
Acetone in ug/L		10 U	10 U	10 U	10 U
Benzene in ug/L	2.4	0.35 U	0.35 U	0.35 U	0.35 U
Bromobenzene in ug/L		1 U	1 U	1 U	1 U
Bromodichloromethane in ug/L	0.09	1 U	1 U	1 U	1 U
Bromoform in ug/L	140	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane in ug/L	13	1 U	1 U	1 U	1 U
Carbon tetrachloride in ug/L	0.22	1 U	1 U	1 U	1 U
Chlorobenzene in ug/L	100	1 U	1 U	1 U	1 U
Chloroethane in ug/L	12	1 U	1 U	1 U	1 U
Chloroform in ug/L	1.2	1 U	1 U	1 U	1 U
Chloromethane in ug/L	5.2	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene in ug/L		1 U	1 U	1 U	1 U
Dibromochloromethane in ug/L	0.22	1 UJ	1 UJ	1 UJ	1 UJ
Dibromomethane in ug/L		1 U	1 U	1 U	1 U
Dichlorodifluoromethane in ug/L	9.9	1 U	1 U	1 U	1 U
Ethylbenzene in ug/L	2,100	1 U	1 U	1 U	1 U
Hexachlorobutadiene in ug/L	0.81	1 U	1 U	1 U	1 U
Isopropylbenzene in ug/L	720	1 U	1 U	1 U	1 U
Methylene chloride in ug/L	94	5 U	5 U	5 U	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U	1 U	1 U	1 U
n-Propylbenzene in ug/L		1 U	1 U	1 U	1 U
p-Isopropyltoluene in ug/L		1 U	1 U	1 U	1 U
sec-Butylbenzene in ug/L		1 U	1 U	1 U	1 U
Styrene in ug/L	78	1 U	1 U	1 U	1 U
tert-Butylbenzene in ug/L		1 U	1 U	1 U	1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U	1 U	1 U	1 U
Toluene in ug/L	15,000	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene in ug/L		1 U	1 U	1 U	1 U
Trichloroethene (TCE) in ug/L	0.42	1 U	1 U	1 U	1 U
Trichlorofluoromethane in ug/L	120	1 U	1 U	1 U	1 U
Vinyl chloride in ug/L	0.35	0.2 U	0.2 U	0.2 U	0.2 U
m,p-Xylenes in ug/L	310	2 U	2 U	2 U	2 U
o-Xylene in ug/L	440	1 U	1 U	1 U	1 U
Xylenes (total) in ug/L	310	ND	ND	ND	ND
Naphthalene in ug/L	170	1 U	1 U	1 U	1 U
Field Parameters					
Dissolved Oxygen in mg/L		0.37	1.09	0.61	0.28
Eh (ORP) in mVolts		-19.2	-12.9	-124.1	-77.3
pH in pH Units		7.3	6.78	6.74	7.24
Specific Conductance in us/cm		433.5	228.6	409	20,253
Temperature in deg C		14.8	15	14.4	15.9
Turbidity in NTU		4.12	2.33	10.1	2.39

Notes

Concentrations in shaded cells exceed groundwater screening level

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 9A - Soil Quality Data for USTs 70, 70R

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	UST70-B-01 5/31/2012 (3-4 ft.)	UST70-B-01 FD 5/31/2012 (3-4 ft.)	UST70-B-01 5/31/2012 (13.5-14.5	UST70-B-02 5/31/2012 (9-10 ft.)	UST70-B-03 5/31/2012 (8-9 ft.)	UST70-B-04 5/31/2012 (0-1 ft.)	UST70-B-04 5/31/2012 (4.5-5.5 ft	UST70-MW-02 6/5/2012 (8-9 ft.)
Total Petroleum Hydrocarbons										
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	12,000 J	8,300 J	50 U	120 J	50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	330	250 U	250 U	450	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	12,300	8,420 J	ND	570	ND	ND	ND	ND
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene in mg/kg			0.18 J	0.40 J	0.01 U	0.082	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthylene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Anthracene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene in mg/kg			0.01 U	0.01 U	0.01 U	0.052	0.02	0.012	0.01 U	0.01 U
Fluoranthene in mg/kg			0.037 J	0.01 UJ	0.01 U	0.018	0.01 U	0.025	0.01 U	0.01 U
Fluorene in mg/kg			0.33 J	0.18 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene in mg/kg			0.47 J	0.31 J	0.01 U	0.016	0.01 U	0.012	0.01 U	0.01 U
Pyrene in mg/kg			0.047 J	0.085 J	0.01 U	0.026	0.01 U	0.025	0.01	0.01 U
Naphthalene in mg/kg	5	5	0.083 J	0.18 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.012	0.01 U	0.014	0.01 U	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01 U	0.01 U	0.01 U	0.017	0.01 U	0.016	0.01 U	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.019	0.01 U	0.023	0.011	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene in mg/kg	140	18,000	0.017	0.033	0.01 U	0.02	0.01 U	0.017	0.01 U	0.01 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.017	0.01 U	0.013	0.01 U	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2	0.00767	0.00783	ND	0.023	ND	0.0222	0.00815	ND
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.076	0.088	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.06	0.067	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.14	0.16	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.13	0.14	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.058	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	0.188	ND	ND

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 9B - Groundwater Quality Data for USTs 70, 70R

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	UST70-MW-01 6/7/2012	UST70-MW-02 6/7/2012
Total Petroleum Hydrocarbons			
Diesel Range Hydrocarbons in ug/L	500	54	50 U
Oil Range Hydrocarbons in ug/L	500	250 UJ	250 UJ
Total TPHs in ug/L	500	179	ND
Dissolved Metals			
Dissolved Antimony in ug/L	640		2.27
Dissolved Arsenic in ug/L	5		5.23
Dissolved Beryllium in ug/L	270		0.0014 J
Dissolved Cadmium in ug/L	8.8		0.135
Dissolved Chromium (Total) in ug/L			0.18 J
Dissolved Copper in ug/L	2.4		1.09
Dissolved Lead in ug/L	8.1		0.125
Dissolved Mercury in ug/L	0.15		0.1 U
Dissolved Nickel in ug/L	8.2		2.01
Dissolved Selenium in ug/L	71		1 U
Dissolved Silver in ug/L	1.9		0.02 U
Dissolved Thallium in ug/L	0.47		0.014 J
Dissolved Zinc in ug/L	81		116
Conventional Chemistry Parameters			
Total Ammonia as Nitrogen in mg/L	0.035		0.575
Dissolved Sulfide in mg/L			0.05 U
Total Suspended Solids in mg/L		10 U	10 U
Polycyclic Aromatic Hydrocarbons (PAHs)			
Acenaphthene in ug/L	640	0.49	0.15
Acenaphthylene in ug/L		0.05 U	0.05 U
Anthracene in ug/L	26,000	0.026	0.05 U
Benzo(g,h,i)perylene in ug/L		0.05 U	0.05 UJ
Fluoranthene in ug/L	90	0.18	0.05 UJ
Fluorene in ug/L	3,500	0.12	0.05 U
Phenanthrene in ug/L		0.061	0.05 U
Pyrene in ug/L	2,600	0.15	0.05 UJ
Naphthalene in ug/L	170	0.34	0.19
Benz(a)anthracene in ug/L	0.018	0.015	0.01 UJ
Benzo(a)pyrene in ug/L	0.018	0.01 U	0.01 UJ
Benzo(b)fluoranthene in ug/L	0.018	0.01 U	0.01 UJ
Benzo(k)fluoranthene in ug/L	0.018	0.01 U	0.01 UJ
Chrysene in ug/L	0.018	0.016	0.01 UJ
Dibenzo(a,h)anthracene in ug/L	0.018	0.01 U	0.01 UJ
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.01 U	0.01 UJ
Total cPAHs TEQ in ug/L	0.018	0.00866	ND
Volatile Organic Compounds			
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U	1 U
1,1-Dichloroethane in ug/L	2,300	1 U	1 U
1,1-Dichloroethene in ug/L	3.2	1 U	1 U
1,1-Dichloropropene in ug/L		1 U	1 U
1,2,3-Trichlorobenzene in ug/L		1 U	1 U
1,2,3-Trichloropropane in ug/L		1 U	1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U	1 U
1,2,4-Trimethylbenzene in ug/L	24	1 U	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U	10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U	1 U
1,2-Dichloropropane in ug/L	15	1 U	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U	1 U
1,3-Dichlorobenzene in ug/L	960	1 U	1 U
1,3-Dichloropropane in ug/L		1 U	1 U
1,4-Dichlorobenzene in ug/L	190	1 U	1 U
2,2-Dichloropropane in ug/L		1 U	1 U
2-Butanone in ug/L	350,000	10 U	10 U
2-Chlorotoluene in ug/L		1 U	1 U
2-Hexanone in ug/L		10 U	10 U
4-Chlorotoluene in ug/L		1 U	1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U	10 U
Acetone in ug/L		25	10 U
Benzene in ug/L	2.4	0.35 U	0.35 U
Bromobenzene in ug/L		1 U	1 U
Bromodichloromethane in ug/L	0.09	1 U	1 U
Bromoform in ug/L	140	1 U	1 UJ
Bromomethane in ug/L	13	1 U	1 U
Carbon tetrachloride in ug/L	0.22	1 U	1 U
Chlorobenzene in ug/L	100	1 U	1 U
Chloroethane in ug/L	12	1 U	1 U
Chloroform in ug/L	1.2	1 U	1 U
Chloromethane in ug/L	5.2	10 U	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	2.2	1 U
cis-1,3-Dichloropropene in ug/L		1 U	1 U
Dibromochloromethane in ug/L	0.22	1 U	1 U
Dibromomethane in ug/L		1 U	1 U
Dichlorodifluoromethane in ug/L	9.9	1 U	1 U
Ethylbenzene in ug/L	2,100	1.2	1 U
Hexachlorobutadiene in ug/L	0.81	1 U	1 U
Isopropylbenzene in ug/L	720	1 U	1 U
Methylene chloride in ug/L	94	5 U	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U	1 U
n-Propylbenzene in ug/L		1 U	1 U
p-Isopropyltoluene in ug/L		1 U	1 U
sec-Butylbenzene in ug/L		1 U	1 U
Styrene in ug/L	78	1 U	1 U
tert-Butylbenzene in ug/L		1 U	1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U	1 U
Toluene in ug/L	15,000	1 U	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U	1 U
trans-1,3-Dichloropropene in ug/L		1 U	1 U
Trichloroethene (TCE) in ug/L	0.42	1 U	1 U
Trichlorofluoromethane in ug/L	120	1 U	1 U
Vinyl chloride in ug/L	0.35	0.2 U	0.2 U

Table 9B - Groundwater Quality Data for USTs 70, 70R

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	UST70-MW-01 6/7/2012	UST70-MW-02 6/7/2012
m,p-Xylenes in ug/L	310	2 U	2 U
o-Xylene in ug/L	440	1 U	1 U
Xylenes (total) in ug/L	310	ND	ND
Semi-Volatile Organics			
1,2,4-Trichlorobenzene in ug/L	2		1 U
1,2-Dichlorobenzene in ug/L	1,300		1 U
1,3-Dichlorobenzene in ug/L	960		1 U
1,4-Dichlorobenzene in ug/L	190		1 U
2,4,5-Trichlorophenol in ug/L	3,600		10 U
2,4,6-Trichlorophenol in ug/L	2.4		10 U
2,4-Dichlorophenol in ug/L	190		10 U
2,4-Dimethylphenol in ug/L	550		10 U
2,4-Dinitrophenol in ug/L	3,500		30 U
2-Chloronaphthalene in ug/L	1,000		1 U
2-Chlorophenol in ug/L	97		10 U
2-Methylphenol in ug/L			10 U
2-Nitroaniline in ug/L			3 U
2-Nitrophenol in ug/L			10 U
3 & 4 Methylphenol in ug/L			20 U
3-Nitroaniline in ug/L			3 U
4,6-Dinitro-2-methylphenol in ug/L			30 U
4-Bromophenyl phenyl ether in ug/L			1 U
4-Chloro-3-methylphenol in ug/L			10 U
4-Chloroaniline in ug/L			3 U
4-Chlorophenyl phenyl ether in ug/L			1 U
4-Nitroaniline in ug/L			10 U
4-Nitrophenol in ug/L			10 U
Benzoic acid in ug/L			50 U
Benzyl alcohol in ug/L			10 U
Benzyl butyl phthalate in ug/L	8.2		1 U
Bis(2-chloro-1-methylethyl) ether in ug/L	37		10 U
Bis(2-chloroethoxy)methane in ug/L			1 U
Bis(2-chloroethyl) ether in ug/L	0.53		10 U
Bis(2-ethylhexyl) phthalate in ug/L	2.2		10 U
Carbazole in ug/L			1 U
Dibenzofuran in ug/L			1 U
Diethyl phthalate in ug/L	28,000		1 U
Dimethyl phthalate in ug/L	1,100,000		1 U
Di-n-butyl phthalate in ug/L	2,900		1 U
Di-n-octyl phthalate in ug/L			1 U
Hexachlorobenzene in ug/L	0.00029		1 U
Hexachlorobutadiene in ug/L	0.81		1 U
Hexachlorocyclopentadiene in ug/L	1,100		3 U
Hexachloroethane in ug/L	3.3		1 U
Isophorone in ug/L	600		1 U
Nitrobenzene in ug/L	690		1 U
N-Nitroso-di-n-propylamine in ug/L	0.51		10 U
N-Nitrosodiphenylamine in ug/L	6		1 U
Pentachlorophenol in ug/L	1.5		10 U
Phenol in ug/L	560,000		10 U
2,4-Dinitrotoluene in ug/L	3.4		1 U
2,6-Dinitrotoluene in ug/L			1 U
2-Methylnaphthalene in ug/L			1 U
Field Parameters			
Dissolved Oxygen in mg/L		0.26	0.47
Eh (ORP) in mVolts		-216.3	-62.3
pH in pH Units		7.48	7.28
Specific Conductance in us/cm		1,403	8,768
Temperature in deg C		36.4	23.2
Turbidity in NTU		6.19	1.47

Notes

Concentrations in shaded cells exceed groundwater screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 10A - Soil Quality Data for USTs 71, 72, 73

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	UST71-B-01 5/31/2012 (12-13 ft.)	UST71-B-02 5/31/2012 (13-14 ft.)	UST71-B-03 5/31/2012 (18-19 ft.)	UST71-B-03 5/31/2012 (19-20 ft.)	UST71-B-04 5/31/2012 (12.5-13.5	UST71-B-04 5/31/2012 (28-29 ft.)
Total Petroleum Hydrocarbons								
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	18,000 J	17,000 J	50 U	16,000 J	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	20,000 J	19,000 J	250 U	16,000 J	250 U
Total TPH in mg/kg	2,000	2,000	ND	38,000 J	36,000 J	ND	32,000 J	ND
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene in mg/kg			0.012	7.5	8	0.039	0.95	0.01 U
Acenaphthylene in mg/kg			0.01 U	0.5 U	0.5 U	0.01 U	0.5 U	0.01 U
Anthracene in mg/kg			0.01 U	6.8	11	0.066	1.2	0.01 U
Benzo(g,h,i)perylene in mg/kg			0.015	2.6	2.2	0.013	0.5 U	0.01 U
Fluoranthene in mg/kg			0.01 U	4	3.3	0.019	0.5 U	0.014
Fluorene in mg/kg			0.01 U	9.5	6.2	0.021	1.1	0.01 U
Phenanthrene in mg/kg			0.01 U	32	22	0.083	4.4	0.031
Pyrene in mg/kg			0.021	21	20	0.13	2.2	0.028
Naphthalene in mg/kg	5	5	0.01 U	7.7	1.1	0.01 U	0.5 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180	0.012	8.5	9.2	0.055	0.85	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01 U	4.8	4.5	0.026	0.5 U	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01 U	2.6	1.6	0.01 U	0.5 U	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01 U	0.5 U	0.5 U	0.01 U	0.5 U	0.01 U
Chrysene in mg/kg	140	18,000	0.015	9.7	12	0.083	1.3	0.012
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.78	0.5 U	0.01 U	0.5 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01 U	1.3	0.97	0.01 U	0.5 U	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2	0.00835	6.24	5.85	0.0343	0.448	0.00762
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.72	0.056	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.19	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	0.05 U	0.19	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 UJ	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.12	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.2	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.5	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.4	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	0.9	ND	ND	ND	ND

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 10B - Groundwater Quality Data for USTs 71, 72, 73

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	UST71-MW-01 6/7/2012
Total Petroleum Hydrocarbons		
Diesel Range Hydrocarbons in ug/L	500	900
Oil Range Hydrocarbons in ug/L	500	280 J
Total TPHs in ug/L	500	1,180
Conventional Chemistry Parameters		
Total Suspended Solids in mg/L		110
Polycyclic Aromatic Hydrocarbons (PAHs)		
Acenaphthene in ug/L	640	4.1
Acenaphthylene in ug/L		0.05 U
Anthracene in ug/L	26,000	2.5
Benzo(g,h,i)perylene in ug/L		0.15
Fluoranthene in ug/L	90	0.66
Fluorene in ug/L	3,500	4.4
Phenanthrene in ug/L		10
Pyrene in ug/L	2,600	5
Naphthalene in ug/L	170	1.9
Benz(a)anthracene in ug/L	0.018	0.71
Benzo(a)pyrene in ug/L	0.018	0.33
Benzo(b)fluoranthene in ug/L	0.018	0.12
Benzo(k)fluoranthene in ug/L	0.018	0.018
Chrysene in ug/L	0.018	1.3
Dibenzo(a,h)anthracene in ug/L	0.018	0.033
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.052
Total cPAHs TEQ in ug/L	0.018	0.436
Volatile Organic Compounds		
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U
1,1-Dichloroethane in ug/L	2,300	1 U
1,1-Dichloroethene in ug/L	3.2	1 U
1,1-Dichloropropene in ug/L		1 U
1,2,3-Trichlorobenzene in ug/L		1 U
1,2,3-Trichloropropane in ug/L		1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2,4-Trimethylbenzene in ug/L	24	3.4
1,2-Dibromo-3-chloropropane in ug/L		10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U
1,2-Dichloropropane in ug/L	15	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,3-Dichloropropane in ug/L		1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,2-Dichloropropane in ug/L		1 U
2-Butanone in ug/L	350,000	10 U
2-Chlorotoluene in ug/L		1 U
2-Hexanone in ug/L		10 U
4-Chlorotoluene in ug/L		1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U
Acetone in ug/L		10 U
Benzene in ug/L	2.4	0.35 U
Bromobenzene in ug/L		1 U
Bromodichloromethane in ug/L	0.09	1 U
Bromoform in ug/L	140	1 UJ
Bromomethane in ug/L	13	1 U
Carbon tetrachloride in ug/L	0.22	1 U
Chlorobenzene in ug/L	100	1 U
Chloroethane in ug/L	12	1 U
Chloroform in ug/L	1.2	1 U
Chloromethane in ug/L	5.2	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U
cis-1,3-Dichloropropene in ug/L		1 U
Dibromochloromethane in ug/L	0.22	1 U
Dibromomethane in ug/L		1 U
Dichlorodifluoromethane in ug/L	9.9	1 U
Ethylbenzene in ug/L	2,100	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Isopropylbenzene in ug/L	720	1 U
Methylene chloride in ug/L	94	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U
n-Propylbenzene in ug/L		1 U
p-Isopropyltoluene in ug/L		1 U
sec-Butylbenzene in ug/L		1 U
Styrene in ug/L	78	1 U
tert-Butylbenzene in ug/L		1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U
Toluene in ug/L	15,000	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U
trans-1,3-Dichloropropene in ug/L		1 U
Trichloroethene (TCE) in ug/L	0.42	1 U
Trichlorofluoromethane in ug/L	120	1 U
Vinyl chloride in ug/L	0.35	0.2 U
m,p-Xylenes in ug/L	310	2 U
o-Xylene in ug/L	440	1.6
Xylenes (total) in ug/L	310	2.6
Field Parameters		
Dissolved Oxygen in mg/L		0.08
Eh (ORP) in mVolts		-22.1
pH in pH Units		6.85
Specific Conductance in us/cm		1,913
Temperature in deg C		37.7
Turbidity in NTU		208

Notes

Concentrations in shaded cells exceed groundwater screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

			Former USTs Area														
Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	MW-05 2/16/2012 (6-7 ft.)	NRP-B-01 6/1/2012 (9-12 ft.)	NRP-B-02 6/1/2012 (8-10 ft.)	NRP-B-02 FD 6/1/2012 (8-10 ft.)	NRP-B-02 6/1/2012 (14-15 ft.)	NRP-B-03 6/1/2012 (8.5-9.5 ft.)	NRP-B-04 6/1/2012 (13.5-14.5 ft.)	NRP-B-05 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (19-20 ft.)	NRP-B-08 6/1/2012 (8.5-9.5 ft.)	NRP-B-08 6/1/2012 (11-12 ft.)	NRP-MW-02 5/29/2012 (7.5-8.5 ft.)	NRP-MW-03 5/29/2012 (6.5-7.5 ft.)
Total Petroleum Hydrocarbons																	
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	4,400 J	220 J	2 U	2 U	4.1	23	120	2 U	2 U	2 U	2 U	2 U	
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	780	920	50 U	50 U	240	430	1,000	50 U	50 U	50 U	50 U	50 U	
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 UJ	1,600 UJ	1,900 UJ	250 UJ	250 UJ	250 UJ	250 U	540	250 U	250 U	250 U	250 U	250 U	
Total TPH in mg/kg	2,000	2,000	ND	ND	1580	1870	ND	ND	365	555	1,540	ND	ND	ND	ND	ND	
Metals																	
Antimony in mg/kg				1 U	1 U	1 U	1 U	1.95	2.13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Arsenic in mg/kg	20	20	8.47	4.18	4.14	5.07	4.01	11.8	14	7.75	5.96	4.42	6.02	4.26	5.72	3.48	
Beryllium in mg/kg				1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Chromium (Total) in mg/kg			16.7	14.1	13	12.9	11.3	21	13.7	14.3	14.8	12.4	17.6	13.1	20.7	10.2	
Copper in mg/kg			24.3	13.2	11.4	12.6	10.1	30.1	28.3	25.3	15.8	11.6	19.4	13.7	24.8	10	
Lead in mg/kg	250	1,000	15.6	3.98	3.95	2.56	1.8	28.3	27.9	15	5.24	2.21	4.75	2.66	3.74	1.78	
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Nickel in mg/kg			21.9	20.7	23.3	26	17.8	29.7	22.5	23.7	20.8	18.3	24.1	19.6	23.3	16.2	
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Thallium in mg/kg				1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Zinc in mg/kg			63.2	40.6	37.6	39.2	33.3	117	125	66.2	42.4	36.3	50.6	39.1	36.9	19.7	
Polycyclic Aromatic Hydrocarbons (PAHs)																	
Acenaphthene in mg/kg				0.43	0.045	0.048	0.18	0.13	0.097	0.37	16	0.49	0.12	0.022	0.01 U	0.38	
Acenaphthylene in mg/kg				0.012	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	1 U	0.012	0.01 U	0.01 U	0.01 U	0.01 U	
Anthracene in mg/kg				0.4	0.01 U	0.01 U	0.01 U	0.064	0.1	0.16	13	0.16	0.09	0.012	0.014	0.011	
Benzo(g,h,i)perylene in mg/kg				0.03	0.01 U	0.01 U	0.01 U	0.14	0.032	0.034	3.9	0.049	0.015	0.01 U	0.01 U	0.02	
Fluoranthene in mg/kg				0.84	0.042	0.035 J	0.01 U	0.54	0.21	0.12	76	0.77	0.12	0.06	0.04	0.049	
Fluorene in mg/kg				0.46	0.038	0.034	0.086	0.078	0.066	0.42	17	0.33	0.16	0.023	0.01 U	0.15	
Phenanthrene in mg/kg				2.3	0.044	0.039	0.05	0.23	0.062	0.92	82	1	0.17	0.039	0.026	0.054	
Pyrene in mg/kg				0.9	0.042	0.039 J	0.01 U	0.59	0.3	0.34	73	0.83	0.18	0.062	0.036	0.049	
Naphthalene in mg/kg	5	5		0.35	0.043	0.052	0.024	0.11	0.084	0.081	4.8	1.7	0.058	0.05	0.033	0.64 J	
Benz(a)anthracene in mg/kg	1.4	180		0.13	0.01 U	0.01 U	0.01 U	0.21	0.11	0.13	20	0.22	0.064	0.018	0.017	0.023	
Benzo(a)pyrene in mg/kg	0.14	0.14		0.064	0.01 U	0.01 U	0.01 U	0.25	0.061	0.061	12	0.13	0.028	0.012	0.01 U	0.028	
Benzo(b)fluoranthene in mg/kg	1.4	180		0.079	0.01 U	0.01 U	0.01 U	0.3	0.062	0.048	18	0.21	0.026	0.018	0.012	0.035	
Benzo(k)fluoranthene in mg/kg	14	1,800		0.028	0.01 U	0.01 U	0.01 U	0.096	0.018	0.014	6	0.071	0.01 U	0.01 U	0.01 U	0.013	
Chrysene in mg/kg	140	18,000		0.13	0.011	0.012 J	0.01 U	0.24	0.13	0.15	19	0.19	0.091	0.016	0.035	0.029	
Dibenzo(a,h)anthracene in mg/kg	0.14	18		0.01 U	0.01 U	0.01 U	0.01 U	0.035	0.01	0.011	1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180		0.029	0.01 U	0.011 J	0.01 U	0.17	0.025	0.022	4.3	0.049	0.011	0.01 U	0.01 U	0.021	
Total cPAHs TEQ in mg/kg	0.14	2		0.0924	0.00761	0.00822 J	ND	0.334	0.0848	0.085	17.1	0.187	0.04	0.0173	0.00975	0.038	
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,1,1-Trichloroethane in mg/kg	2	2		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	
1,1,2,2-Tetrachloroethane in mg/kg	5	660		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,1,2-Trichloroethane in mg/kg	18	2,300		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,1-Dichloroethane in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	
1,1-Dichloroethene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	
1,1-Dichloropropene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	
1,2,3-Trichlorobenzene in mg/kg				0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ	
1,2,3-Trichloropropane in mg/kg	0.033	4.4		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,2,4-Trichlorobenzene in mg/kg	35	4,500		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ	
1,2,4-Trimethylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.11	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,2-Dichlorobenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,2-Dichloroethane (EDC) in mg/kg	11	1,400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,2-Dichloropropane in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,3,5-Trimethylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,3-Dichlorobenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,3-Dichloropropane in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1,4-Dichlorobenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
2,2-Dichloropropane in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	
2-Butanone in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
2-Chlorotoluene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
2-Hexanone in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	Former USTs Area														
			MW-05 2/16/2012 (6-7 ft.)	NRP-B-01 6/1/2012 (9-12 ft.)	NRP-B-02 6/1/2012 (8-10 ft.)	NRP-B-02 FD 6/1/2012 (8-10 ft.)	NRP-B-02 6/1/2012 (14-15 ft.)	NRP-B-03 6/1/2012 (8.5-9.5 ft.)	NRP-B-04 6/1/2012 (13.5-14.5 ft.)	NRP-B-05 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (19-20 ft.)	NRP-B-08 6/1/2012 (8.5-9.5 ft.)	NRP-B-08 6/1/2012 (11-12 ft.)	NRP-MW-02 5/29/2012 (7.5-8.5 ft.)	NRP-MW-03 5/29/2012 (6.5-7.5 ft.)
4-Chlorotoluene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 UJ
Bromobenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
Carbon tetrachloride in mg/kg	14	1,900		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
Chlorobenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
Chloroform in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
Chloromethane in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ
cis-1,2-Dichloroethene (DCE) in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg				0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	0.02 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.093	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Isopropylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.13	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.063	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.051	0.092	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.059	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05		0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 UJ
Toluene in mg/kg	7	7	0.02 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
trans-1,3-Dichloropropene in mg/kg				0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03		0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 UJ
Trichlorofluoromethane in mg/kg				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Vinyl chloride in mg/kg	0.67	88		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
m,p-Xylenes in mg/kg	16,000	700,000		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	0.06 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organics																
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U													
1,2-Dichlorobenzene in mg/kg			0.03 U													
1,3-Dichlorobenzene in mg/kg			0.03 U													
1,4-Dichlorobenzene in mg/kg			0.03 U													
2,4,5-Trichlorophenol in mg/kg			0.3 U													
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U													
2,4-Dichlorophenol in mg/kg			0.3 U													
2,4-Dimethylphenol in mg/kg			0.3 U													
2,4-Dinitrophenol in mg/kg			0.9 U													
2-Chloronaphthalene in mg/kg			0.03 U													
2-Chlorophenol in mg/kg			0.3 U													
2-Methylphenol in mg/kg			0.3 U													
2-Nitroaniline in mg/kg			0.03 U													
2-Nitrophenol in mg/kg			0.3 U													
3 & 4 Methylphenol in mg/kg			0.6 U													
3-Nitroaniline in mg/kg			3 U													
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U													
4-Bromophenyl phenyl ether in mg/kg			0.03 U													
4-Chloro-3-methylphenol in mg/kg			0.3 U													
4-Chloroaniline in mg/kg	5	660	3 U													
4-Chlorophenyl phenyl ether in mg/kg			0.03 U													
4-Nitroaniline in mg/kg			3 U													
4-Nitrophenol in mg/kg			0.9 U													

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

			Former USTs Area														
Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	MW-05 2/16/2012 (6-7 ft.)	NRP-B-01 6/1/2012 (9-12 ft.)	NRP-B-02 6/1/2012 (8-10 ft.)	NRP-B-02 FD 6/1/2012 (8-10 ft.)	NRP-B-02 6/1/2012 (14-15 ft.)	NRP-B-03 6/1/2012 (8.5-9.5 ft.)	NRP-B-04 6/1/2012 (13.5-14.5 ft.)	NRP-B-05 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (9-10 ft.)	NRP-B-07 6/1/2012 (19-20 ft.)	NRP-B-08 6/1/2012 (8.5-9.5 ft.)	NRP-B-08 6/1/2012 (11-12 ft.)	NRP-MW-02 5/29/2012 (7.5-8.5 ft.)	NRP-MW-03 5/29/2012 (6.5-7.5 ft.)
Acenaphthene in mg/kg			0.17													
Acenaphthylene in mg/kg			0.03 U													
Anthracene in mg/kg			0.036													
Benzo(g,h,i)perylene in mg/kg			0.14													
Benzoic acid in mg/kg			1.5 U													
Benzyl alcohol in mg/kg			0.3 U													
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U													
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U													
Bis(2-chloroethoxy)methane in mg/kg			0.03 U													
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U													
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.3 U													
Carbazole in mg/kg			0.03 U													
Dibenzofuran in mg/kg			0.03 U													
Diethyl phthalate in mg/kg			0.03 U													
Dimethyl phthalate in mg/kg			0.03 U													
Di-n-butyl phthalate in mg/kg			0.03 U													
Di-n-octyl phthalate in mg/kg			0.03 U													
Fluoranthene in mg/kg			0.33													
Fluorene in mg/kg			0.087													
Hexachlorobenzene in mg/kg	0.63	82	0.03 U													
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U													
Hexachlorocyclopentadiene in mg/kg			0.09 U													
Hexachloroethane in mg/kg	71	9,400	0.03 U													
Isophorone in mg/kg	1,100	140,000	0.03 U													
Nitrobenzene in mg/kg			0.03 U													
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U													
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U													
Pentachlorophenol in mg/kg	2.5	330	0.3 U													
Phenanthrene in mg/kg			0.093													
Phenol in mg/kg			0.3 U													
Pyrene in mg/kg			0.33													
Benz(a)anthracene in mg/kg	1.4	180	0.14													
Benzo(a)pyrene in mg/kg	0.14	0.14	0.19													
Benzo(b)fluoranthene in mg/kg	1.4	180	0.19													
Benzo(k)fluoranthene in mg/kg	14	1,800	0.076													
Chrysene in mg/kg	140	18,000	0.16													
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.037													
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.12													
2,4-Dinitrotoluene in mg/kg			0.03 U													
2,6-Dinitrotoluene in mg/kg			0.03 U													
2-Methylnaphthalene in mg/kg			0.03 U													
Naphthalene in mg/kg	5	5	0.057													
Total cPAH (TEQ) in mg/kg	0.14	2	0.25													
Polychlorinated Biphenyls (PCBs)																
Aroclor 1016 in mg/kg	14	1,900	0.1 U													
Aroclor 1221 in mg/kg			0.1 U													
Aroclor 1232 in mg/kg			0.1 U													
Aroclor 1242 in mg/kg			0.1 U													
Aroclor 1248 in mg/kg			0.1 U													
Aroclor 1254 in mg/kg	0.5	66	0.1 U													
Aroclor 1260 in mg/kg	0.5	66	0.1 U													
Total PCBs in mg/kg	1	10	ND													

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	Former Shooting Range Area															
			NRP-B-09 6/27/2012 (0-1 ft.)	NRP-B-09 6/27/2012 (3-4 ft.)	NRP-B-10 6/27/2012 (0-1 ft.)	NRP-B-10 6/27/2012 (3-4 ft.)	NRP-B-11 6/6/2012 (0-1 ft.)	NRP-B-11 6/6/2012 (3-4 ft.)	NRP-B-12 6/6/2012 (0-1 ft.)	NRP-B-12 6/6/2012 (3-4 ft.)	NRP-B-13 6/6/2012 (0-1 ft.)	NRP-B-13 6/6/2012 (3-4 ft.)	NRP-B-14 6/27/2012 (0-1 ft.)	NRP-B-14 6/27/2012 (3-4 ft.)	NRP-B-15 6/6/2012 (0-1 ft.)	NRP-B-15 6/6/2012 (3-4 ft.)	NRP-B-16 6/27/2012 (0-1 ft.)	NRP-B-16 6/27/2012 (3-4 ft.)
Total Petroleum Hydrocarbons																		
Gasoline Range Hydrocarbons in mg/kg	100	100																
Diesel Range Hydrocarbons in mg/kg	2,000	2,000																
Oil Range Hydrocarbons in mg/kg	2,000	2,000																
Total TPH in mg/kg	2,000	2,000																
Metals																		
Antimony in mg/kg			2.43	1 U	7.36	1 U	1.03	1 U	3.34	1 U	1 U	1 U	1 U	1 U	2.21	1 U	1.36	1 U
Arsenic in mg/kg	20	20	12.9	6.14	35.3	12.7	5.62	9.72	18	5.42	12.3	8.16	1.56	8.74	22.2	6.12	7.33	3.57
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			18.3	16	12.6	28.9	17	32.3	10.6	15.6	9.05	30.8	17.7	34.5	7.81	18.4	18.6	20.1
Copper in mg/kg			32.1	14.8	38.4	38	22.4	45.7	24.6	19.1	19.9	38.5	16.6	35.6	50.3	21.8	21.9	18.1
Lead in mg/kg	250	1,000	52	18.5	74.1	7.68	14.5	9.26	28.3	3.76	6.03	7.82	2.52	6.24	15.3	3.94	10.3	2.52
Mercury in mg/kg	2	2	0.1	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.31	0.1 U	0.1 U	0.1 U	0.1 U
Nickel in mg/kg			36.5	21.8	25.6	30.5	32.8	35.2	21.1	20.5	12.1	33.5	44.7	32.5	9.04	18.6	28.3	23.7
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			123	45.8	345	59.6	60.6	57.9	138	31.9	42.6	56.6	27.4	55.4	92	32	86.1	35.6
Polycyclic Aromatic Hydrocarbons (PAHs)																		
Acenaphthene in mg/kg																		
Acenaphthylene in mg/kg																		
Anthracene in mg/kg																		
Benzo(g,h,i)perylene in mg/kg																		
Fluoranthene in mg/kg																		
Fluorene in mg/kg																		
Phenanthrene in mg/kg																		
Pyrene in mg/kg																		
Naphthalene in mg/kg	5	5																
Benz(a)anthracene in mg/kg	1.4	180																
Benzo(a)pyrene in mg/kg	0.14	0.14																
Benzo(b)fluoranthene in mg/kg	1.4	180																
Benzo(k)fluoranthene in mg/kg	14	1,800																
Chrysene in mg/kg	140	18,000																
Dibenzo(a,h)anthracene in mg/kg	0.14	18																
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180																
Total cPAHs TEQ in mg/kg	0.14	2																
Volatile Organic Compounds																		
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000																
1,1,1-Trichloroethane in mg/kg	2	2																
1,1,2,2-Tetrachloroethane in mg/kg	5	660																
1,1,2-Trichloroethane in mg/kg	18	2,300																
1,1-Dichloroethane in mg/kg																		
1,1-Dichloroethene in mg/kg																		
1,1-Dichloropropene in mg/kg																		
1,2,3-Trichlorobenzene in mg/kg																		
1,2,3-Trichloropropane in mg/kg	0.033	4.4																
1,2,4-Trichlorobenzene in mg/kg	35	4,500																
1,2,4-Trimethylbenzene in mg/kg																		
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160																
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005																
1,2-Dichlorobenzene in mg/kg																		
1,2-Dichloroethane (EDC) in mg/kg	11	1,400																
1,2-Dichloropropane in mg/kg																		
1,3,5-Trimethylbenzene in mg/kg																		
1,3-Dichlorobenzene in mg/kg																		
1,3-Dichloropropane in mg/kg																		
1,4-Dichlorobenzene in mg/kg																		
2,2-Dichloropropane in mg/kg																		
2-Butanone in mg/kg																		
2-Chlorotoluene in mg/kg																		
2-Hexanone in mg/kg																		

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

			Former Shooting Range Area															
Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	NRP-B-09 6/27/2012 (0-1 ft.)	NRP-B-09 6/27/2012 (3-4 ft.)	NRP-B-10 6/27/2012 (0-1 ft.)	NRP-B-10 6/27/2012 (3-4 ft.)	NRP-B-11 6/6/2012 (0-1 ft.)	NRP-B-11 6/6/2012 (3-4 ft.)	NRP-B-12 6/6/2012 (0-1 ft.)	NRP-B-12 6/6/2012 (3-4 ft.)	NRP-B-13 6/6/2012 (0-1 ft.)	NRP-B-13 6/6/2012 (3-4 ft.)	NRP-B-14 6/27/2012 (0-1 ft.)	NRP-B-14 6/27/2012 (3-4 ft.)	NRP-B-15 6/6/2012 (0-1 ft.)	NRP-B-15 6/6/2012 (3-4 ft.)	NRP-B-16 6/27/2012 (0-1 ft.)	NRP-B-16 6/27/2012 (3-4 ft.)
4-Chlorotoluene in mg/kg																		
4-Methyl-2-pentanone in mg/kg																		
Acetone in mg/kg																		
Benzene in mg/kg	0.03	0.03																
Bromobenzene in mg/kg																		
Bromodichloromethane in mg/kg	16	2,100																
Bromoform in mg/kg	130	17,000																
Bromomethane in mg/kg																		
Carbon tetrachloride in mg/kg	14	1,900																
Chlorobenzene in mg/kg																		
Chloroethane in mg/kg																		
Chloroform in mg/kg																		
Chloromethane in mg/kg																		
cis-1,2-Dichloroethene (DCE) in mg/kg																		
cis-1,3-Dichloropropene in mg/kg																		
Dibromochloromethane in mg/kg	12	1,600																
Dibromomethane in mg/kg																		
Dichlorodifluoromethane in mg/kg																		
Ethylbenzene in mg/kg	6	6																
Hexachlorobutadiene in mg/kg	13	1,700																
Isopropylbenzene in mg/kg																		
Methylene chloride in mg/kg	0.02	0.02																
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1																
n-Propylbenzene in mg/kg																		
p-Isopropyltoluene in mg/kg																		
sec-Butylbenzene in mg/kg																		
Styrene in mg/kg																		
tert-Butylbenzene in mg/kg																		
Tetrachloroethene (PCE) in mg/kg	0.05	0.05																
Toluene in mg/kg	7	7																
trans-1,2-Dichloroethene in mg/kg																		
trans-1,3-Dichloropropene in mg/kg																		
Trichloroethene (TCE) in mg/kg	0.03	0.03																
Trichlorofluoromethane in mg/kg																		
Vinyl chloride in mg/kg	0.67	88																
m,p-Xylenes in mg/kg	16,000	700,000																
o-Xylene in mg/kg	16,000	700,000																
Xylenes (total) in mg/kg	9	9																
Semi-Volatile Organics																		
1,2,4-Trichlorobenzene in mg/kg	35	4,500																
1,2-Dichlorobenzene in mg/kg																		
1,3-Dichlorobenzene in mg/kg																		
1,4-Dichlorobenzene in mg/kg																		
2,4,5-Trichlorophenol in mg/kg																		
2,4,6-Trichlorophenol in mg/kg	91	12,000																
2,4-Dichlorophenol in mg/kg																		
2,4-Dimethylphenol in mg/kg																		
2,4-Dinitrophenol in mg/kg																		
2-Chloronaphthalene in mg/kg																		
2-Chlorophenol in mg/kg																		
2-Methylphenol in mg/kg																		
2-Nitroaniline in mg/kg																		
2-Nitrophenol in mg/kg																		
3 & 4 Methylphenol in mg/kg																		
3-Nitroaniline in mg/kg																		
4,6-Dinitro-2-methylphenol in mg/kg																		
4-Bromophenyl phenyl ether in mg/kg																		
4-Chloro-3-methylphenol in mg/kg																		
4-Chloroaniline in mg/kg	5	660																
4-Chlorophenyl phenyl ether in mg/kg																		
4-Nitroaniline in mg/kg																		
4-Nitrophenol in mg/kg																		

Table 11A - Soil Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

			Former Shooting Range Area															
Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	NRP-B-09 6/27/2012 (0-1 ft.)	NRP-B-09 6/27/2012 (3-4 ft.)	NRP-B-10 6/27/2012 (0-1 ft.)	NRP-B-10 6/27/2012 (3-4 ft.)	NRP-B-11 6/6/2012 (0-1 ft.)	NRP-B-11 6/6/2012 (3-4 ft.)	NRP-B-12 6/6/2012 (0-1 ft.)	NRP-B-12 6/6/2012 (3-4 ft.)	NRP-B-13 6/6/2012 (0-1 ft.)	NRP-B-13 6/6/2012 (3-4 ft.)	NRP-B-14 6/27/2012 (0-1 ft.)	NRP-B-14 6/27/2012 (3-4 ft.)	NRP-B-15 6/6/2012 (0-1 ft.)	NRP-B-15 6/6/2012 (3-4 ft.)	NRP-B-16 6/27/2012 (0-1 ft.)	NRP-B-16 6/27/2012 (3-4 ft.)
Acenaphthene in mg/kg																		
Acenaphthylene in mg/kg																		
Anthracene in mg/kg																		
Benzo(g,h,i)perylene in mg/kg																		
Benzoic acid in mg/kg																		
Benzyl alcohol in mg/kg																		
Benzyl butyl phthalate in mg/kg	530	69,000																
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900																
Bis(2-chloroethoxy)methane in mg/kg																		
Bis(2-chloroethyl) ether in mg/kg	0.91	120																
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400																
Carbazole in mg/kg																		
Dibenzofuran in mg/kg																		
Diethyl phthalate in mg/kg																		
Dimethyl phthalate in mg/kg																		
Di-n-butyl phthalate in mg/kg																		
Di-n-octyl phthalate in mg/kg																		
Fluoranthene in mg/kg																		
Fluorene in mg/kg																		
Hexachlorobenzene in mg/kg	0.63	82																
Hexachlorobutadiene in mg/kg	13	1,700																
Hexachlorocyclopentadiene in mg/kg																		
Hexachloroethane in mg/kg	71	9,400																
Isophorone in mg/kg	1,100	140,000																
Nitrobenzene in mg/kg																		
N-Nitroso-di-n-propylamine in mg/kg	0.14	19																
N-Nitrosodiphenylamine in mg/kg	200	27,000																
Pentachlorophenol in mg/kg	2.5	330																
Phenanthrene in mg/kg																		
Phenol in mg/kg																		
Pyrene in mg/kg																		
Benz(a)anthracene in mg/kg	1.4	180																
Benzo(a)pyrene in mg/kg	0.14	0.14																
Benzo(b)fluoranthene in mg/kg	1.4	180																
Benzo(k)fluoranthene in mg/kg	14	1,800																
Chrysene in mg/kg	140	18,000																
Dibenzo(a,h)anthracene in mg/kg	0.14	18																
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180																
2,4-Dinitrotoluene in mg/kg																		
2,6-Dinitrotoluene in mg/kg																		
2-Methylnaphthalene in mg/kg																		
Naphthalene in mg/kg	5	5																
Total cPAH (TEQ) in mg/kg	0.14	2																
Polychlorinated Biphenyls (PCBs)																		
Aroclor 1016 in mg/kg	14	1,900																
Aroclor 1221 in mg/kg																		
Aroclor 1232 in mg/kg																		
Aroclor 1242 in mg/kg																		
Aroclor 1248 in mg/kg																		
Aroclor 1254 in mg/kg	0.5	66																
Aroclor 1260 in mg/kg	0.5	66																
Total PCBs in mg/kg	1	10																

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 11B - Groundwater Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

		Former USTs Area							Former Shooting Range Area	
Chemical Name	Groundwater Screening Level	MW-05 2/17/2012	MW-05 6/5/2012	NRP-MW-01 6/8/2012	NRP-MW-01 FD 6/8/2012	NRP-MW-02 6/5/2012	NRP-MW-03 6/5/2012	NRP-MW-03 FD 6/5/2012	NRP-MW-04 7/3/2012	NRP-MW-05 7/3/2012
Total Petroleum Hydrocarbons										
Gasoline Range Hydrocarbons in ug/L	1000	100 U	100 U	100		100 U	100 U			
Diesel Range Hydrocarbons in ug/L	500	50 U	50 U	50 U	50 U	50 U	50 U			
Oil Range Hydrocarbons in ug/L	500	250 U	250 U	250 UJ	250 UJ	250 U	250 U			
Total TPHs in ug/L	500	ND	ND	ND	ND	ND	ND			
Dissolved Metals										
Dissolved Antimony in ug/L	640		1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Arsenic in ug/L	5	4.68	3.92	1.6	1.51	1 U	2.11		1 U	1 U
Dissolved Beryllium in ug/L	270		1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Cadmium in ug/L	8.8	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Chromium (Total) in ug/L		1.92	1.58	1.13	1.04	1 U	5.48		1 U	1 U
Dissolved Copper in ug/L	2.4	7.09	5.21	1 U	1.92	1 U	1.84		1.09	1 U
Dissolved Lead in ug/L	8.1	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Mercury in ug/L	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.1 U
Dissolved Nickel in ug/L	8.2	3.48	3.38	3.2	2.94	2.12	2.31		2.69	3.65
Dissolved Selenium in ug/L	71	15.3	13.8 J	3.61	3.12	1.11 J	4.49 J		1 U	1 U
Dissolved Silver in ug/L	1.9	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Thallium in ug/L	0.47		1 U	1 U	1 U	1 U	1 U		1 U	1 U
Dissolved Zinc in ug/L	81	1.61	1 U	2.01	1 U	4.44	3.57		3.54	2.77
Total Metals										
Total Antimony in ug/L	640								1 U	1 U
Total Arsenic in ug/L	5								1 U	1 U
Total Beryllium in ug/L	270								1 U	1 U
Total Cadmium in ug/L	8.8								1 U	1 U
Total Chromium (Total) in ug/L									1 U	1 U
Total Copper in ug/L	2.4								9.2	1 U
Total Lead in ug/L	8.1								1 U	1 U
Total Mercury in ug/L	0.15								0.1 U	0.1 U
Total Nickel in ug/L	8.2								3.64	3.28
Total Selenium in ug/L	71								1 U	1 U
Total Silver in ug/L	1.9								1 U	1 U
Total Thallium in ug/L	0.47								1 U	1 U
Total Zinc in ug/L	81								6.16	2.34
Conventional Chemistry Parameters										
Total Ammonia as Nitrogen in mg/L	0.035		0.662	3.26	3.26	0.383	11.3			
Total Dissolved Solids in mg/L		2,775								
Dissolved Sulfide in mg/L			3.01	0.05 U	0.05 U	0.506	0.2 U			
Total Suspended Solids in mg/L		100	10 U	10 U		10 U	19		10 U	10 U
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene in ug/L	640	0.28	0.22	0.2	0.19	0.05 U	0.6			
Acenaphthylene in ug/L		0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U			
Anthracene in ug/L	26,000	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U			
Benzo(g,h,i)perylene in ug/L		0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U			
Fluoranthene in ug/L	90	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.075			
Fluorene in ug/L	3,500	0.1 U	0.05 U	0.089	0.084	0.05 U	0.12			
Phenanthrene in ug/L		0.1 U	0.05 U	0.17	0.17	0.05 U	0.2			
Pyrene in ug/L	2,600	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.067			
Naphthalene in ug/L	170	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U			
Benz(a)anthracene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.014			
Benzo(a)pyrene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Benzo(b)fluoranthene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Benzo(k)fluoranthene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Chrysene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.011			
Dibenzo(a,h)anthracene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Total cPAHs TEQ in ug/L	0.018	ND	ND	ND	ND	ND	0.00851			
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane in ug/L	7.4		1 U	1 U		1 U	1 U			
1,1,1-Trichloroethane in ug/L	11,000		1 U	1 U		1 U	1 U			
1,1,2,2-Tetrachloroethane in ug/L	4		1 U	1 U		1 U	1 U			
1,1,2-Trichloroethane in ug/L	7.9		1 U	1 U		1 U	1 U			
1,1-Dichloroethane in ug/L	2,300		1 U	1 U		1 U	1 U			
1,1-Dichloroethene in ug/L	3.2		1 U	1 U		1 U	1 U			
1,1-Dichloropropene in ug/L			1 U	1 U		1 U	1 U			
1,2,3-Trichlorobenzene in ug/L			1 U	1 U		1 U	1 U			
1,2,3-Trichloropropane in ug/L			1 U	1 U		1 U	1 U			
1,2,4-Trichlorobenzene in ug/L	2		1 U	1 U		1 U	1 U			
1,2,4-Trimethylbenzene in ug/L	24		1 U	1 U		1 U	1 U			
1,2-Dibromo-3-chloropropane in ug/L			10 U	10 U		10 U	10 U			
1,2-Dibromoethane (EDB) in ug/L	0.74		1 U	1 U		1 U	1 U			
1,2-Dichlorobenzene in ug/L	1,300		1 U	1 U		1 U	1 U			
1,2-Dichloroethane (EDC) in ug/L	4.2		1 U	1 U		1 U	1 U			
1,2-Dichloropropane in ug/L	15		1 U	1 U		1 U	1 U			
1,3,5-Trimethylbenzene in ug/L	25		1 U	1 U		1 U	1 U			
1,3-Dichlorobenzene in ug/L	960		1 U	1 U		1 U	1 U			
1,3-Dichloropropane in ug/L			1 U	1 U		1 U	1 U			
1,4-Dichlorobenzene in ug/L	190		1 U	1 U		1 U	1 U			
2,2-Dichloropropane in ug/L			1 U	1 U		1 U	1 U			
2-Butanone in ug/L	350,000		10 U	10 U		10 U	10 U			
2-Chlorotoluene in ug/L			1 U	1 U		1 U	1 U			
2-Hexanone in ug/L			10 U	10 U		10 U	10 U			
4-Chlorotoluene in ug/L			1 U	1 U		1 U	1 U			
4-Methyl-2-pentanone in ug/L	11,000		10 U	10 U		10 U	10 U			
Acetone in ug/L			10 U	10 U		10 U	10 U			
Benzene in ug/L	2.4	1 U	0.35 U	0.35 U		0.35 U	0.35 U			
Bromobenzene in ug/L			1 U	1 U		1 U	1 U			
Bromodichloromethane in ug/L	0.09		1 U	1 U		1 U	1 U			
Bromoform in ug/L	140		1 UJ	1 U		1 UJ	1 UJ			
Bromomethane in ug/L	13		1 U	1 U		1 U	1 U			
Carbon tetrachloride in ug/L	0.22		1 U	1 U		1 U	1 U			
Chlorobenzene in ug/L	100		1 U	1 U		1 U	1 U			
Chloroethane in ug/L	12		1 U	1 U		1 U	1 U			
Chloroform in ug/L	1.2		1 U	1 U		1 U	1 U			
Chloromethane in ug/L	5.2		10 U	10 U		10 U	10 U			
cis-1,2-Dichloroethene (DCE) in ug/L	160		1 U	1 U		1 U	1 U			
cis-1,3-Dichloropropene in ug/L			1 U	1 U		1 U	1 U			
Dibromochloromethane in ug/L	0.22		1 U	1 U		1 U	1 U			
Dibromomethane in ug/L			1 U	1 U		1 U	1 U			
Dichlorodifluoromethane in ug/L	9.9		1 UJ	1 U		1 UJ	1 UJ			
Ethylbenzene in ug/L	2,100	1 U	1 U	1 U		1 U	1 U			

Table 11B - Groundwater Quality Data for HREC 2 - Naval Reserve Parcel

K-C Worldwide Site Upland Area 110207

		Former USTs Area							Former Shooting Range Area	
Chemical Name	Groundwater Screening Level	MW-05 2/17/2012	MW-05 6/5/2012	NRP-MW-01 6/8/2012	NRP-MW-01 FD 6/8/2012	NRP-MW-02 6/5/2012	NRP-MW-03 6/5/2012	NRP-MW-03 FD 6/5/2012	NRP-MW-04 7/3/2012	NRP-MW-05 7/3/2012
Hexachlorobutadiene in ug/L	0.81		1 U	1 U		1 U	1 U			
Isopropylbenzene in ug/L	720		1 U	1 U		1 U	1 U			
Methylene chloride in ug/L	94		5 U	5 U		5 U	5 U			
Methyl-Tert-Butyl Ether in ug/L	610		1 U	1 U		1 U	1 U			
n-Propylbenzene in ug/L			1 U	1 U		1 U	1 U			
p-Isopropyltoluene in ug/L			1 U	1 U		1 U	1 U			
sec-Butylbenzene in ug/L			1 U	1 U		1 U	1 U			
Styrene in ug/L	78		1 U	1 U		1 U	1 U			
tert-Butylbenzene in ug/L			1 U	1 U		1 U	1 U			
Tetrachloroethene (PCE) in ug/L	0.39		1 U	1 U		1 U	1 U			
Toluene in ug/L	15,000	1 U	1 U	1 U		1 U	1 U			
trans-1,2-Dichloroethene in ug/L	130		1 U	1 U		1 U	1 U			
trans-1,3-Dichloropropene in ug/L			1 U	1 U		1 U	1 U			
Trichloroethene (TCE) in ug/L	0.42		1 U	1 U		1 U	1 U			
Trichlorofluoromethane in ug/L	120		1 U	1 U		1 U	1 U			
Vinyl chloride in ug/L	0.35		0.2 U	0.2 U		0.2 U	0.2 U			
m,p-Xylenes in ug/L	310		2 U	2 U		2 U	2 U			
o-Xylene in ug/L	440		1 U	1 U		1 U	1 U			
Xylenes (total) in ug/L	310	3 U	ND	ND		ND	ND			
Semi-Volatile Organics										
1,2,4-Trichlorobenzene in ug/L	2	1 U	1 U			1 U	1 U	1 U		
1,2-Dichlorobenzene in ug/L	1,300	1 U	1 U			1 U	1 U	1 U		
1,3-Dichlorobenzene in ug/L	960	1 U	1 U			1 U	1 U	1 U		
1,4-Dichlorobenzene in ug/L	190	1 U	1 U			1 U	1 U	1 U		
2,4,5-Trichlorophenol in ug/L	3,600	10 U	10 U			10 U	10 U	10 U		
2,4,6-Trichlorophenol in ug/L	2.4	10 U	10 U			10 U	10 U	10 U		
2,4-Dichlorophenol in ug/L	190	10 U	10 U			10 U	10 U	10 U		
2,4-Dimethylphenol in ug/L	550	10 U	10 U			10 U	10 U	10 U		
2,4-Dinitrophenol in ug/L	3,500	30 U	30 U			30 U	30 U	30 U		
2-Chloronaphthalene in ug/L	1,000	1 U	1 U			1 U	1 U	1 U		
2-Chlorophenol in ug/L	97	10 U	10 U			10 U	10 U	10 U		
2-Methylphenol in ug/L		10 U	10 U			10 U	10 U	10 U		
2-Nitroaniline in ug/L		1 U	3 U			3 U	3 U	3 U		
2-Nitrophenol in ug/L		10 U	10 U			10 U	10 U	10 U		
3 & 4 Methylphenol in ug/L		20 U	20 U			20 U	20 U	20 U		
3-Nitroaniline in ug/L		3 U	3 U			3 U	3 U	3 U		
4,6-Dinitro-2-methylphenol in ug/L		30 U	30 U			30 U	30 U	30 U		
4-Bromophenyl phenyl ether in ug/L		1 U	1 U			1 U	1 U	1 U		
4-Chloro-3-methylphenol in ug/L		10 U	10 U			10 U	10 U	10 U		
4-Chloroaniline in ug/L		3 U	3 U			3 U	3 U	3 U		
4-Chlorophenyl phenyl ether in ug/L		1 U	1 U			1 U	1 U	1 U		
4-Nitroaniline in ug/L		10 U	10 U			10 U	10 U	10 U		
4-Nitrophenol in ug/L		10 U	10 U			10 U	10 U	10 U		
Acenaphthene in ug/L	640							1 U		
Acenaphthylene in ug/L								1 U		
Anthracene in ug/L	26,000							1 U		
Benzo(g,h,i)perylene in ug/L								1 U		
Benzoic acid in ug/L		50 U	50 U			50 U	50 U	50 U		
Benzyl alcohol in ug/L		10 U	10 U			10 U	10 U	10 U		
Benzyl butyl phthalate in ug/L	8.2	1 U	1 U			1 U	1 U	1 U		
Bis(2-chloro-1-methylethyl) ether in ug/L	37	10 U	10 U			10 U	10 U	10 U		
Bis(2-chloroethoxy)methane in ug/L		1 U	1 U			1 U	1 U	1 U		
Bis(2-chloroethyl) ether in ug/L	0.53	10 U	10 U			10 U	10 U	10 U		
Bis(2-ethylhexyl) phthalate in ug/L	2.2	10 U	10 U			10 U	10 U	10 U		
Carbazole in ug/L		1 U	1 U			1 U	1 U	1 U		
Dibenzofuran in ug/L		1 U	1 U			1 U	1 U	1 U		
Diethyl phthalate in ug/L	28,000	1 U	1 U			1 U	1 U	1 U		
Dimethyl phthalate in ug/L	1,100,000	1 U	1 U			1 U	1 U	1 U		
Di-n-butyl phthalate in ug/L	2,900	1 U	1 U			1 U	1 U	1 U		
Di-n-octyl phthalate in ug/L		1 U	1 U			1 U	1 U	1 U		
Fluoranthene in ug/L	90							1 U		
Fluorene in ug/L	3,500							1 U		
Hexachlorobenzene in ug/L	0.00029	1 U	1 U			1 U	1 U	1 U		
Hexachlorobutadiene in ug/L	0.81	1 U	1 U			1 U	1 U	1 U		
Hexachlorocyclopentadiene in ug/L	1,100	3 U	3 U			3 U	3 U	3 U		
Hexachloroethane in ug/L	3.3	1 U	1 U			1 U	1 U	1 U		
Isophorone in ug/L	600	1 U	1 U			1 U	1 U	1 U		
Nitrobenzene in ug/L	690	1 U	1 U			1 U	1 U	1 U		
N-Nitroso-di-n-propylamine in ug/L	0.51	10 U	10 U			10 U	10 U	10 U		
N-Nitrosodiphenylamine in ug/L	6	1 U	1 U			1 U	1 U	1 U		
Pentachlorophenol in ug/L	1.5	10 U	10 U			10 U	10 U	10 U		
Phenanthrene in ug/L								1 U		
Phenol in ug/L	560,000	10 U	10 U			10 U	10 U	10 U		
Pyrene in ug/L	2,600							1 U		
Benz(a)anthracene in ug/L	0.018							1 U		
Benzo(a)pyrene in ug/L	0.018							1 U		
Benzo(b)fluoranthene in ug/L	0.018							1 U		
Benzo(k)fluoranthene in ug/L	0.018							1 U		
Chrysene in ug/L	0.018							1 U		
Dibenzo(a,h)anthracene in ug/L	0.018							1 U		
Indeno(1,2,3-cd)pyrene in ug/L	0.018							1 U		
2,4-Dinitrotoluene in ug/L	3.4	1 U	1 U			1 U	1 U	1 U		
2,6-Dinitrotoluene in ug/L		1 U	1 U			1 U	1 U	1 U		
2-Methylnaphthalene in ug/L		1 U	1 U			1 U	1 U	1 U		
Naphthalene in ug/L	170							1 U		
Field Parameters										
Dissolved Oxygen in mg/L		1.53	0.07	0.59		0.35	2.01		0.35	0.37
Eh (ORP) in mVolts		-222	-78.1	-77.5		-1.3	-98.9		-102.2	-110.9
pH in pH Units		6.67	5.8	6.64		6.13	6.51		7.16	7.12
Specific Conductance in us/cm		5,773	3,554	991		770	1,410		717	736
Temperature in deg C		11	12.94	15.4		13.37	12.6		14	14.4
Turbidity in NTU		70	0.73	3.89		1.9	37.4		2.72	2.54

Notes

Concentrations in shaded cells exceed groundwater screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 12A - Soil Quality Data for Log Pond Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	DP-18 2/16/2012 (2.5-3.5 ft.)	DP-19 2/16/2012 (2.5-3.5 ft.)	DP-20 2/16/2012 (2.5-3.5 ft.)	DP-21 2/16/2012 (4-5 ft.)	DP-22 2/16/2012 (3-4 ft.)	MW-06 2/16/2012 (22-23 ft.)
Total Petroleum Hydrocarbons								
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	2 U	2 U	2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	ND	ND	ND
Metals								
Arsenic in mg/kg	20	20	2.81	1.89	3.18	9.19	4.81	2.96
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			18.9	13.3	12.3	75.8	12	17.2
Copper in mg/kg			38.8	13.2	27.1	63.4	15.1	23.2
Lead in mg/kg	250	1,000	11.5	3.94	128	22.8	3.8	17.5
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.2	0.1 U	0.1 U	0.1 U
Nickel in mg/kg			34.1	41.4	24.2	47.4	16	28
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			189	21.9	106	75	26.7	280
Volatile Organic Compounds								
Benzene in mg/kg	0.03	0.03	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Ethylbenzene in mg/kg	6	6	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Toluene in mg/kg	7	7	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Xylenes (total) in mg/kg	9	9	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Semi-Volatile Organics								
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dinitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Chlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Nitrophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
3-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U	3 U	3 U
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline in mg/kg	5	660	3 U	3 U	3 U	3 U	3 U	3 U
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
4-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U	3 U	3 U
4-Nitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Acenaphthene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Acenaphthylene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Anthracene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Benzo(g,h,i)perylene in mg/kg			0.03 U	0.03 U	0.051	0.033	0.03 U	0.03 U
Benzoic acid in mg/kg			1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Benzyl alcohol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbazole in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Dibenzofuran in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Diethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Dimethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Fluoranthene in mg/kg			0.03 U	0.03 U	0.06	0.049	0.03 U	0.049
Fluorene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Nitrobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene in mg/kg			0.03 U	0.03 U	0.032	0.03 U	0.03 U	0.044
Phenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene in mg/kg			0.03 U	0.03 U	0.068	0.052	0.03 U	0.056
Benz(a)anthracene in mg/kg	1.4	180	0.03 U	0.03 U	0.031	0.03 U	0.03 U	0.03 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.03 U	0.03 U	0.047	0.033	0.03 U	0.03 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.03 U	0.03 U	0.051	0.051	0.03 U	0.03 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Chrysene in mg/kg	140	18,000	0.03 U	0.03 U	0.041	0.036	0.03 U	0.03 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.03 U	0.03 U	0.038	0.03 U	0.03 U	0.03 U
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Methylnaphthalene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Naphthalene in mg/kg	5	5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.063
Total cPAH (TEQ) in mg/kg	0.14	2	ND	ND	0.062	0.044	ND	ND
Polychlorinated Biphenyls (PCBs)								
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs in mg/kg	1	10	ND	ND	ND	ND	ND	ND

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

U - Analyte was not detected at or above the reported result.

Table 12B - Groundwater Quality Data for Log Pond Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-06 2/17/2012	MW-06 6/7/2012
Total Petroleum Hydrocarbons			
Gasoline Range Hydrocarbons in ug/L	1000	100 U	100 U
Diesel Range Hydrocarbons in ug/L	500	50 U	50 U
Oil Range Hydrocarbons in ug/L	500	250 U	250 UJ
Total TPHs in ug/L	500	ND	ND
Dissolved Metals			
Dissolved Antimony in ug/L	640		1 U
Dissolved Arsenic in ug/L	5	5.2	6.38
Dissolved Beryllium in ug/L	270		1 U
Dissolved Cadmium in ug/L	8.8	1 U	1 U
Dissolved Chromium (Total) in ug/L		4.28	5.26
Dissolved Copper in ug/L	2.4	4.14	3.29
Dissolved Lead in ug/L	8.1	1 U	1 U
Dissolved Mercury in ug/L	0.15	0.1 U	0.1 U
Dissolved Nickel in ug/L	8.2	5.95	7.81
Dissolved Selenium in ug/L	71	12.4	16.3
Dissolved Silver in ug/L	1.9	1 U	1 U
Dissolved Thallium in ug/L	0.47		1 U
Dissolved Zinc in ug/L	81	1.49	13
Total Metals			
Total Antimony in ug/L	640		1 U
Total Arsenic in ug/L	5		5.88
Total Beryllium in ug/L	270		1 U
Total Cadmium in ug/L	8.8		1 U
Total Chromium (Total) in ug/L			6.62
Total Copper in ug/L	2.4		3.85
Total Lead in ug/L	8.1		1 U
Total Mercury in ug/L	0.15		0.1 U
Total Nickel in ug/L	8.2		7.82
Total Selenium in ug/L	71		14.6
Total Silver in ug/L	1.9		1 U
Total Thallium in ug/L	0.47		1 U
Total Zinc in ug/L	81		3.96
Conventional Chemistry Parameters			
Total Ammonia as Nitrogen in mg/L	0.035		15.5
Total Dissolved Solids in mg/L		2,726	
Dissolved Sulfide in mg/L			0.05 U
Total Suspended Solids in mg/L		41	13
Polycyclic Aromatic Hydrocarbons (PAHs)			
Acenaphthene in ug/L	640	0.1 U	0.05 U
Acenaphthylene in ug/L		0.1 U	0.05 U
Anthracene in ug/L	26,000	0.1 U	0.05 U
Benzo(g,h,i)perylene in ug/L		0.1 U	0.05 U
Fluoranthene in ug/L	90	0.1 U	0.05 U
Fluorene in ug/L	3,500	0.1 U	0.05 U
Phenanthrene in ug/L		0.1 U	0.05 U
Pyrene in ug/L	2,600	0.1 U	0.05 U
Naphthalene in ug/L	170	0.1 U	0.05 U
Benz(a)anthracene in ug/L	0.018	0.1 U	0.01 U
Benzo(a)pyrene in ug/L	0.018	0.1 U	0.01 U
Benzo(b)fluoranthene in ug/L	0.018	0.1 U	0.01 U
Benzo(k)fluoranthene in ug/L	0.018	0.1 U	0.01 U
Chrysene in ug/L	0.018	0.1 U	0.01 U
Dibenzo(a,h)anthracene in ug/L	0.018	0.1 U	0.01 U
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.1 U	0.01 U
Total cPAHs TEQ in ug/L	0.018	ND	ND
Volatile Organic Compounds			
1,1,1,2-Tetrachloroethane in ug/L	7.4		1 U
1,1,1-Trichloroethane in ug/L	11,000		1 U
1,1,2,2-Tetrachloroethane in ug/L	4		1 U
1,1,2-Trichloroethane in ug/L	7.9		1 U
1,1-Dichloroethane in ug/L	2,300		1 U
1,1-Dichloroethene in ug/L	3.2		1 U
1,1-Dichloropropene in ug/L			1 U

Table 12B - Groundwater Quality Data for Log Pond Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-06 2/17/2012	MW-06 6/7/2012
1,2,3-Trichlorobenzene in ug/L			1 U
1,2,3-Trichloropropane in ug/L			1 U
1,2,4-Trichlorobenzene in ug/L	2		1 U
1,2,4-Trimethylbenzene in ug/L	24		1 U
1,2-Dibromo-3-chloropropane in ug/L			10 U
1,2-Dibromoethane (EDB) in ug/L	0.74		1 U
1,2-Dichlorobenzene in ug/L	1,300		1 U
1,2-Dichloroethane (EDC) in ug/L	4.2		1 U
1,2-Dichloropropane in ug/L	15		1 U
1,3,5-Trimethylbenzene in ug/L	25		1 U
1,3-Dichlorobenzene in ug/L	960		1 U
1,3-Dichloropropane in ug/L			1 U
1,4-Dichlorobenzene in ug/L	190		1 U
2,2-Dichloropropane in ug/L			1 U
2-Butanone in ug/L	350,000		10 U
2-Chlorotoluene in ug/L			1 U
2-Hexanone in ug/L			10 U
4-Chlorotoluene in ug/L			1 U
4-Methyl-2-pentanone in ug/L	11,000		10 U
Acetone in ug/L			10 U
Benzene in ug/L	2.4	1 U	0.35 U
Bromobenzene in ug/L			1 U
Bromodichloromethane in ug/L	0.09		1 U
Bromoform in ug/L	140		1 U
Bromomethane in ug/L	13		1 U
Carbon tetrachloride in ug/L	0.22		1 U
Chlorobenzene in ug/L	100		1 U
Chloroethane in ug/L	12		1 U
Chloroform in ug/L	1.2		1 U
Chloromethane in ug/L	5.2		10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160		1 U
cis-1,3-Dichloropropene in ug/L			1 U
Dibromochloromethane in ug/L	0.22		1 U
Dibromomethane in ug/L			1 U
Dichlorodifluoromethane in ug/L	9.9		1 U
Ethylbenzene in ug/L	2,100	1 U	1 U
Hexachlorobutadiene in ug/L	0.81		1 U
Isopropylbenzene in ug/L	720		1 U
Methylene chloride in ug/L	94		5 U
Methyl-Tert-Butyl Ether in ug/L	610		1 U
n-Propylbenzene in ug/L			1 U
p-Isopropyltoluene in ug/L			1 U
sec-Butylbenzene in ug/L			1 U
Styrene in ug/L	78		1 U
tert-Butylbenzene in ug/L			1 U
Tetrachloroethene (PCE) in ug/L	0.39		1 U
Toluene in ug/L	15,000	1 U	1 U
trans-1,2-Dichloroethene in ug/L	130		1 U
trans-1,3-Dichloropropene in ug/L			1 U
Trichloroethene (TCE) in ug/L	0.42		1 U
Trichlorofluoromethane in ug/L	120		1 U
Vinyl chloride in ug/L	0.35		0.2 U
m,p-Xylenes in ug/L	310		2 U
o-Xylene in ug/L	440		1 U
Xylenes (total) in ug/L	310	3 U	ND
Semi-Volatile Organics			
1,2,4-Trichlorobenzene in ug/L	2	1 U	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U	1 U
1,3-Dichlorobenzene in ug/L	960	1 U	1 U
1,4-Dichlorobenzene in ug/L	190	1 U	1 U
2,4,5-Trichlorophenol in ug/L	3,600	10 U	10 U
2,4,6-Trichlorophenol in ug/L	2.4	10 U	10 U
2,4-Dichlorophenol in ug/L	190	10 U	10 U
2,4-Dimethylphenol in ug/L	550	10 U	10 U

Table 12B - Groundwater Quality Data for Log Pond Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	MW-06 2/17/2012	MW-06 6/7/2012
2,4-Dinitrophenol in ug/L	3,500	30 U	30 U
2-Chloronaphthalene in ug/L	1,000	1 U	1 U
2-Chlorophenol in ug/L	97	10 U	10 U
2-Methylphenol in ug/L		10 U	10 U
2-Nitroaniline in ug/L		1 U	3 U
2-Nitrophenol in ug/L		10 U	10 U
3 & 4 Methylphenol in ug/L		20 U	20 U
3-Nitroaniline in ug/L		3 U	3 U
4,6-Dinitro-2-methylphenol in ug/L		30 U	30 U
4-Bromophenyl phenyl ether in ug/L		1 U	1 U
4-Chloro-3-methylphenol in ug/L		10 U	10 U
4-Chloroaniline in ug/L		3 U	3 U
4-Chlorophenyl phenyl ether in ug/L		1 U	1 U
4-Nitroaniline in ug/L		10 U	10 U
4-Nitrophenol in ug/L		10 U	10 U
Benzoic acid in ug/L		50 U	50 U
Benzyl alcohol in ug/L		10 U	10 U
Benzyl butyl phthalate in ug/L	8.2	1 U	1 U
Bis(2-chloro-1-methylethyl) ether in ug/L	37	10 U	10 U
Bis(2-chloroethoxy)methane in ug/L		1 U	1 U
Bis(2-chloroethyl) ether in ug/L	0.53	10 U	10 U
Bis(2-ethylhexyl) phthalate in ug/L	2.2	10 U	10 U
Carbazole in ug/L		1 U	1 U
Dibenzofuran in ug/L		1 U	1 U
Diethyl phthalate in ug/L	28,000	1 U	1 U
Dimethyl phthalate in ug/L	1,100,000	1 U	1 U
Di-n-butyl phthalate in ug/L	2,900	1 U	1 U
Di-n-octyl phthalate in ug/L		1 U	1 U
Hexachlorobenzene in ug/L	0.00029	1 U	1 U
Hexachlorobutadiene in ug/L	0.81	1 U	1 U
Hexachlorocyclopentadiene in ug/L	1,100	3 U	3 U
Hexachloroethane in ug/L	3.3	1 U	1 U
Isophorone in ug/L	600	1 U	1 U
Nitrobenzene in ug/L	690	1 U	1 U
N-Nitroso-di-n-propylamine in ug/L	0.51	10 U	10 U
N-Nitrosodiphenylamine in ug/L	6	1 U	1 U
Pentachlorophenol in ug/L	1.5	10 U	10 U
Phenol in ug/L	560,000	10 U	10 U
2,4-Dinitrotoluene in ug/L	3.4	1 U	1 U
2,6-Dinitrotoluene in ug/L		1 U	1 U
2-Methylnaphthalene in ug/L		1 U	1 U
Field Parameters			
Dissolved Oxygen in mg/L		4.96	0.23
Eh (ORP) in mVolts		-141	-39.9
pH in pH Units		7.39	7.34
Specific Conductance in us/cm		3,809	3,347
Temperature in deg C		17.2	17.73
Turbidity in NTU		25.8	22.1

Notes

Concentrations in shaded cells exceed groundwater screening level.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 13A - Soil Quality Data for Acid Plant

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	AP-MW-01 6/29/2012 (1-2 ft.)	AP-MW-01 FD 6/29/2012 (1-2 ft.)	AP-MW-01 6/29/2012 (6-7 ft.)	AP-MW-01 FD 6/29/2012 (6-7 ft.)
Metals						
Antimony in mg/kg			1 U	1 U	1 U	1 U
Arsenic in mg/kg	20	20	4.86	4.62	5.72	2.57
Beryllium in mg/kg			1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			11.6	11	18.3	14.6
Copper in mg/kg			11.8	9.5	17.2	12
Lead in mg/kg	250	1,000	2.42	2.89	2.52	2.13
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U
Nickel in mg/kg			19	18.6	28.7	20.6
Selenium in mg/kg			1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U
Zinc in mg/kg			21.9	21.5	32.2	27.2
Conventional Chemistry Parameters						
pH in pH units			7.44	7.45	7.51	

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

U - Analyte was not detected at or above the reported result

Table 13B - Groundwater Quality Data for Acid Plant

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	AP-MW-01 7/3/2012	AP-MW-01 FD 7/3/2012
Dissolved Metals			
Dissolved Antimony in ug/L	640	1 U	1 U
Dissolved Arsenic in ug/L	5	1.2	1.22
Dissolved Beryllium in ug/L	270	1 U	1 U
Dissolved Cadmium in ug/L	8.8	1 U	1 U
Dissolved Chromium (Total) in ug/L		1 U	1 U
Dissolved Copper in ug/L	2.4	1 U	1 U
Dissolved Lead in ug/L	8.1	1 U	1 U
Dissolved Mercury in ug/L	0.15	0.1 U	0.1 U
Dissolved Nickel in ug/L	8.2	1.85	2.04
Dissolved Selenium in ug/L	71	1 U	1 U
Dissolved Silver in ug/L	1.9	1 U	1 U
Dissolved Thallium in ug/L	0.47	1 U	1 U
Dissolved Zinc in ug/L	81	1.39	1.74
Total Metals			
Total Antimony in ug/L	640		1 U
Total Arsenic in ug/L	5		1.11
Total Beryllium in ug/L	270	1 U	1 U
Total Cadmium in ug/L	8.8		1 U
Total Chromium (Total) in ug/L		1 U	1 U
Total Copper in ug/L	2.4		1 U
Total Lead in ug/L	8.1		1 U
Total Mercury in ug/L	0.15	0.1 U	0.1 U
Total Nickel in ug/L	8.2		2.02
Total Selenium in ug/L	71		1 U
Total Silver in ug/L	1.9		1 U
Total Thallium in ug/L	0.47		1 U
Total Zinc in ug/L	81		1.82
Conventional Chemistry Parameters			
Total Suspended Solids in mg/L		10 U	
Field Parameters			
Dissolved Oxygen in mg/L		0.39	
Eh (ORP) in mVolts		-90.4	
pH in pH Units		7.18	
Specific Conductance in us/cm		661	
Temperature in deg C		14.5	

Notes

Concentrations in shaded cells exceed groundwater screening level

U - Analyte was not detected at or above the reported result

Table 14A - Soil Quality Data for Central Maintenance Shop

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	CMS-B-01 7/6/2012 (0-1 ft.)	CMS-B-01 7/6/2012 (2-3 ft.)	CMS-B-02 7/6/2012 (0-1 ft.)	CMS-B-02 7/6/2012 (2-3 ft.)	CMS-B-03 7/6/2012 (0-1 ft.)	CMS-B-03 7/6/2012 (2-3 ft.)
Total Petroleum Hydrocarbons								
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	11	2 U	2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 U	58	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	183	ND	ND
Metals								
Antimony in mg/kg			1.68	1 U	1.23	1.21	1 U	1 U
Arsenic in mg/kg	20	20	6.02	4.25	7.06	4.63	6.17	4.3
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1.32	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			16.6	11.4	22.7	15.4	19.1	12.8
Copper in mg/kg			74.2	20.1	44.1	37.5	29.9	27.4
Lead in mg/kg	250	1,000	73.3	17	55.8	37.9	32.7	28.2
Mercury in mg/kg	2	2	0.32	0.1 U	0.14	0.24	0.1 U	0.1 U
Nickel in mg/kg			22.4	17	47.5	16.4	17.8	17.7
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			297	35.2	57.4	46.1	44.9	58.9
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene in mg/kg			0.01 U	0.01 U	0.01 U	0.011	0.01 U	0.01 U
Acenaphthylene in mg/kg			0.01 U	0.01 U	0.01 U	0.025	0.01 U	0.01 U
Anthracene in mg/kg			0.01 U	0.01 U	0.014	0.028	0.01 U	0.01 U
Benzo(g,h,i)perylene in mg/kg			0.01 U	0.03	0.032	0.045	0.013	0.032
Fluoranthene in mg/kg			0.01 U	0.01 U	0.12	0.18	0.03	0.083
Fluorene in mg/kg			0.01 U	0.01 U	0.01 U	0.016	0.01 U	0.01 U
Phenanthrene in mg/kg			0.01 U	0.01 U	0.062	0.2	0.024	0.068
Pyrene in mg/kg			0.01 U	0.01 U	0.14	0.23	0.037	0.098
Naphthalene in mg/kg	5	5	0.01 U	0.01 U	0.092	0.25	0.015	0.05
Benz(a)anthracene in mg/kg	1.4	180	0.01 U	0.01 U	0.034	0.057	0.013	0.031
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01 U	0.01 U	0.034	0.048	0.013	0.031
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01 U	0.017	0.06	0.083	0.021	0.053
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01 U	0.01 U	0.018	0.021	0.01 U	0.016
Chrysene in mg/kg	140	18,000	0.01 U	0.01 U	0.06	0.093	0.019	0.048
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01 U	0.023	0.029	0.036	0.012	0.027
Total cPAHs TEQ in mg/kg	0.14	2	ND	0.0106	0.0492	0.0691	0.0188	0.0447
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (PCBs)								
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	1.3	0.4	1.3	1
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.6	0.2	1	0.9
Total PCBs in mg/kg	1	10	ND	ND	2.15	0.85	2.55	2.15

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

U - Analyte was not detected at or above the reported result.

Table 14B - Groundwater Quality Data for Central Maintenance Shop

K-C Groundwater Quality Data for Central Maintenance Shop 110207

Chemical Name	Groundwater Screening Level	CMS-MW-01 7/2-3/2012
Total Petroleum Hydrocarbons		
Gasoline Range Hydrocarbons in ug/L	1000	100 U
Diesel Range Hydrocarbons in ug/L	500	610
Oil Range Hydrocarbons in ug/L	500	250 U
Total TPHs in ug/L	500	735
Dissolved Metals		
Dissolved Antimony in ug/L	640	1 U
Dissolved Arsenic in ug/L	5	1.26
Dissolved Beryllium in ug/L	270	1 U
Dissolved Cadmium in ug/L	8.8	1 U
Dissolved Chromium (Total) in ug/L		1.59
Dissolved Copper in ug/L	2.4	1 U
Dissolved Lead in ug/L	8.1	1 U
Dissolved Mercury in ug/L	0.15	0.1 U
Dissolved Nickel in ug/L	8.2	7.18
Dissolved Selenium in ug/L	71	1 U
Dissolved Silver in ug/L	1.9	1 U
Dissolved Thallium in ug/L	0.47	1 U
Dissolved Zinc in ug/L	81	2.73
Total Metals		
Total Antimony in ug/L	640	1 U
Total Arsenic in ug/L	5	1 U
Total Beryllium in ug/L	270	1 U
Total Cadmium in ug/L	8.8	1 U
Total Chromium (Total) in ug/L		1.61
Total Copper in ug/L	2.4	1 U
Total Lead in ug/L	8.1	1 U
Total Mercury in ug/L	0.15	0.1 U
Total Nickel in ug/L	8.2	1.11
Total Selenium in ug/L	71	1 U
Total Silver in ug/L	1.9	1 U
Total Thallium in ug/L	0.47	1 U
Total Zinc in ug/L	81	1.65
Conventional Chemistry Parameters		
Total Suspended Solids in mg/L		10 U
Polycyclic Aromatic Hydrocarbons (PAHs)		
Acenaphthene in ug/L	640	54
Acenaphthylene in ug/L		0.68
Anthracene in ug/L	26,000	1.9
Benzo(g,h,i)perylene in ug/L		0.05 U
Fluoranthene in ug/L	90	6.1
Fluorene in ug/L	3,500	29
Phenanthrene in ug/L		36
Pyrene in ug/L	2,600	4.2
Naphthalene in ug/L	170	200
Benz(a)anthracene in ug/L	0.018	0.26
Benzo(a)pyrene in ug/L	0.018	0.011
Benzo(b)fluoranthene in ug/L	0.018	0.022
Benzo(k)fluoranthene in ug/L	0.018	0.01 U
Chrysene in ug/L	0.018	0.14
Dibenzo(a,h)anthracene in ug/L	0.018	0.01 U
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.01 U
Total cPAHs TEQ in ug/L	0.018	0.0421
Volatile Organic Compounds		
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U
1,1-Dichloroethane in ug/L	2,300	1 U
1,1-Dichloroethene in ug/L	3.2	1 U
1,1-Dichloropropene in ug/L		1 U
1,2,3-Trichlorobenzene in ug/L		1 U
1,2,3-Trichloropropane in ug/L		1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U

Table 14B - Groundwater Quality Data for Central Maintenance Shop

K-C Groundwater Quality Data for Central Maintenance Shop 110207

Chemical Name	Groundwater Screening Level	CMS-MW-01 7/2-3/2012
1,2,4-Trimethylbenzene in ug/L	24	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U
1,2-Dichloropropane in ug/L	15	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,3-Dichloropropane in ug/L		1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,2-Dichloropropane in ug/L		1 U
2-Butanone in ug/L	350,000	10 U
2-Chlorotoluene in ug/L		1 U
2-Hexanone in ug/L		10 U
4-Chlorotoluene in ug/L		1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U
Acetone in ug/L		10 U
Benzene in ug/L	2.4	0.35 U
Bromobenzene in ug/L		1 U
Bromodichloromethane in ug/L	0.09	1 U
Bromoform in ug/L	140	1 U
Bromomethane in ug/L	13	1 U
Carbon tetrachloride in ug/L	0.22	1 U
Chlorobenzene in ug/L	100	1 U
Chloroethane in ug/L	12	1 U
Chloroform in ug/L	1.2	1 U
Chloromethane in ug/L	5.2	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U
cis-1,3-Dichloropropene in ug/L		1 U
Dibromochloromethane in ug/L	0.22	1 U
Dibromomethane in ug/L		1 U
Dichlorodifluoromethane in ug/L	9.9	1 U
Ethylbenzene in ug/L	2,100	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Isopropylbenzene in ug/L	720	1 U
Methylene chloride in ug/L	94	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U
n-Propylbenzene in ug/L		1 U
p-Isopropyltoluene in ug/L		1 U
sec-Butylbenzene in ug/L		1 U
Styrene in ug/L	78	1 U
tert-Butylbenzene in ug/L		1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U
Toluene in ug/L	15,000	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U
trans-1,3-Dichloropropene in ug/L		1 U
Trichloroethene (TCE) in ug/L	0.42	1 U
Trichlorofluoromethane in ug/L	120	1 U
Vinyl chloride in ug/L	0.35	0.2 U
m,p-Xylenes in ug/L	310	2 U
o-Xylene in ug/L	440	1 U
Xylenes (total) in ug/L	310	ND
Field Parameters		
Dissolved Oxygen in mg/L		0.42
Eh (ORP) in mVolts		-117.5
pH in pH Units		6.87
Specific Conductance in us/cm		434
Temperature in deg C		16.8

Notes

Concentrations in shaded cells exceed groundwater screening level.

U - Analyte was not detected at or above the reported result.

Table 15A - Soil Quality Data for Old Machine Shop

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	OMS-B-01 7/5/2012 (0-1 ft.)	OMS-B-01 7/5/2012 (2-3 ft.)	OMS-B-02 7/5/2012 (0-1 ft.)	OMS-B-02 7/5/2012 (2-3 ft.)	OMS-B-03 7/5/2012 (0-1 ft.)	OMS-B-03 7/6/2012 (2-3 ft.)
Total Petroleum Hydrocarbons								
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	2 U	2 U	2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	ND	ND	ND
Metals								
Antimony in mg/kg			1 U	1 U	1 U	1 U	4.81	22
Arsenic in mg/kg	20	20	5.54	8.16	5.99	5.48	3.84	7.12
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			16.4	20.7	20.7	16.9	10.8	22.4
Copper in mg/kg			19.2	31.6	34	18.4	59.7	265
Lead in mg/kg	250	1,000	4.17	4.92	4.31	3.89	116	378
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.23	0.84
Nickel in mg/kg			22.6	28.5	30.9	20.5	23.9	62.7
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			33.7	43.4	37.6	32.4	59.3	117
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.013
Acenaphthylene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.017
Anthracene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.054
Benzo(g,h,i)perylene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.064	0.25 J
Fluoranthene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.14	0.62
Fluorene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.018
Phenanthrene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.094	0.42
Pyrene in mg/kg			0.01 U	0.01 U	0.01 U	0.01 U	0.17	0.66
Naphthalene in mg/kg	5	5	0.01 U	0.01 U	0.01 U	0.01 U	0.012	0.053
Benz(a)anthracene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.01 U	0.053	0.3
Benzo(a)pyrene in mg/kg	0.14	0.14	0.01 U	0.01 U	0.01 U	0.01 U	0.069	0.33 J
Benzo(b)fluoranthene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.01 U	0.093	0.51 J
Benzo(k)fluoranthene in mg/kg	14	1,800	0.01 U	0.01 U	0.01 U	0.01 U	0.036	0.16 J
Chrysene in mg/kg	140	18,000	0.01 U	0.01 U	0.01 U	0.01 U	0.087	0.46
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.01 U	0.01 U	0.01 U	0.012	0.056 J
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.01 U	0.01 U	0.01 U	0.01 U	0.06	0.25 J
Total cPAHs TEQ in mg/kg	0.14	2	ND	ND	ND	ND	0.0953	0.462
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (PCBs)								
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	1.1	1.9
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs in mg/kg	1	10	ND	ND	ND	ND	1.4	2.2

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

Table 15B - Groundwater Quality Data for Old Machine Shop

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	OMS-MW-01 6/6/2012
Total Petroleum Hydrocarbons		
Gasoline Range Hydrocarbons in ug/L	1000	100 U
Diesel Range Hydrocarbons in ug/L	500	50 U
Oil Range Hydrocarbons in ug/L	500	250 UJ
Total TPHs in ug/L	500	ND
Dissolved Metals		
Dissolved Antimony in ug/L	640	1.1
Dissolved Arsenic in ug/L	5	0.76
Dissolved Beryllium in ug/L	270	0.0012 J
Dissolved Cadmium in ug/L	8.8	0.079
Dissolved Chromium (Total) in ug/L		0.35
Dissolved Copper in ug/L	2.4	1.07
Dissolved Lead in ug/L	8.1	0.056
Dissolved Mercury in ug/L	0.15	0.1 U
Dissolved Nickel in ug/L	8.2	6.75
Dissolved Selenium in ug/L	71	0.8 J
Dissolved Silver in ug/L	1.9	0.005 J
Dissolved Thallium in ug/L	0.47	0.026
Dissolved Zinc in ug/L	81	3.99
Conventional Chemistry Parameters		
Total Ammonia as Nitrogen in mg/L		0.023 J
Dissolved Sulfide in mg/L		0.05 U
Total Suspended Solids in mg/L		17
Polycyclic Aromatic Hydrocarbons (PAHs)		
Acenaphthene in ug/L	640	0.05 U
Acenaphthylene in ug/L		0.05 U
Anthracene in ug/L	26,000	0.05 U
Benzo(g,h,i)perylene in ug/L		0.05 UJ
Fluoranthene in ug/L	90	0.05 UJ
Fluorene in ug/L	3,500	0.05 U
Phenanthrene in ug/L		0.05 U
Pyrene in ug/L	2,600	0.05 UJ
Naphthalene in ug/L	170	0.05 U
Benz(a)anthracene in ug/L	0.018	0.01 UJ
Benzo(a)pyrene in ug/L	0.018	0.01 UJ
Benzo(b)fluoranthene in ug/L	0.018	0.01 UJ
Benzo(k)fluoranthene in ug/L	0.018	0.01 UJ
Chrysene in ug/L	0.018	0.01 UJ
Dibenzo(a,h)anthracene in ug/L	0.018	0.01 UJ
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.01 UJ
Total cPAHs TEQ in ug/L	0.018	ND
Volatile Organic Compounds		
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U
1,1-Dichloroethane in ug/L	2,300	1 U
1,1-Dichloroethene in ug/L	3.2	1 U
1,1-Dichloropropene in ug/L		1 U
1,2,3-Trichlorobenzene in ug/L		1 U
1,2,3-Trichloropropane in ug/L		1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2,4-Trimethylbenzene in ug/L	24	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U
1,2-Dichloropropane in ug/L	15	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U
1,3-Dichlorobenzene in ug/L	960	1 U

Table 15B - Groundwater Quality Data for Old Machine Shop

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	OMS-MW-01 6/6/2012
1,3-Dichloropropane in ug/L		1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,2-Dichloropropane in ug/L		1 U
2-Butanone in ug/L	350,000	10 U
2-Chlorotoluene in ug/L		1 U
2-Hexanone in ug/L		10 U
4-Chlorotoluene in ug/L		1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U
Acetone in ug/L		10 U
Benzene in ug/L	2.4	0.35 U
Bromobenzene in ug/L		1 U
Bromodichloromethane in ug/L	0.09	1 U
Bromoform in ug/L	140	1 UJ
Bromomethane in ug/L	13	1 U
Carbon tetrachloride in ug/L	0.22	1 U
Chlorobenzene in ug/L	100	1 U
Chloroethane in ug/L	12	1 U
Chloroform in ug/L	1.2	1 U
Chloromethane in ug/L	5.2	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U
cis-1,3-Dichloropropene in ug/L		1 U
Dibromochloromethane in ug/L	0.22	1 U
Dibromomethane in ug/L		1 U
Dichlorodifluoromethane in ug/L	9.9	1 U
Ethylbenzene in ug/L	2,100	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Isopropylbenzene in ug/L	720	1 U
Methylene chloride in ug/L	94	5 UJ
Methyl-Tert-Butyl Ether in ug/L	610	1 U
n-Propylbenzene in ug/L		1 U
p-Isopropyltoluene in ug/L		1 U
sec-Butylbenzene in ug/L		1 U
Styrene in ug/L	78	1 U
tert-Butylbenzene in ug/L		1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U
Toluene in ug/L	15,000	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U
trans-1,3-Dichloropropene in ug/L		1 U
Trichloroethene (TCE) in ug/L	0.42	1 U
Trichlorofluoromethane in ug/L	120	1 U
Vinyl chloride in ug/L	0.35	0.2 U
m,p-Xylenes in ug/L	310	2 U
o-Xylene in ug/L	440	1 U
Xylenes (total) in ug/L	310	ND
Semi-Volatile Organics		
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,4,5-Trichlorophenol in ug/L	3,600	10 U
2,4,6-Trichlorophenol in ug/L	2.4	10 U
2,4-Dichlorophenol in ug/L	190	10 U
2,4-Dimethylphenol in ug/L	550	10 U
2,4-Dinitrophenol in ug/L	3,500	30 U
2-Chloronaphthalene in ug/L	1,000	1 U
2-Chlorophenol in ug/L	97	10 U
2-Methylphenol in ug/L		10 U
2-Nitroaniline in ug/L		3 U
2-Nitrophenol in ug/L		10 U
3 & 4 Methylphenol in ug/L		20 U

Table 15B - Groundwater Quality Data for Old Machine Shop

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	OMS-MW-01 6/6/2012
3-Nitroaniline in ug/L		3 U
4,6-Dinitro-2-methylphenol in ug/L		30 U
4-Bromophenyl phenyl ether in ug/L		1 U
4-Chloro-3-methylphenol in ug/L		10 U
4-Chloroaniline in ug/L		3 U
4-Chlorophenyl phenyl ether in ug/L		1 U
4-Nitroaniline in ug/L		10 U
4-Nitrophenol in ug/L		10 U
Benzoic acid in ug/L		50 U
Benzyl alcohol in ug/L		10 U
Benzyl butyl phthalate in ug/L	8.2	1 U
Bis(2-chloro-1-methylethyl) ether in ug/L	37	10 U
Bis(2-chloroethoxy)methane in ug/L		1 U
Bis(2-chloroethyl) ether in ug/L	0.53	10 U
Bis(2-ethylhexyl) phthalate in ug/L	2.2	10 U
Carbazole in ug/L		1 U
Dibenzofuran in ug/L		1 U
Diethyl phthalate in ug/L	28,000	1 U
Dimethyl phthalate in ug/L	1,100,000	1 U
Di-n-butyl phthalate in ug/L	2,900	1 U
Di-n-octyl phthalate in ug/L		1 U
Hexachlorobenzene in ug/L	0.00029	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Hexachlorocyclopentadiene in ug/L	1,100	3 U
Hexachloroethane in ug/L	3.3	1 U
Isophorone in ug/L	600	1 U
Nitrobenzene in ug/L	690	1 U
N-Nitroso-di-n-propylamine in ug/L	0.51	10 U
N-Nitrosodiphenylamine in ug/L	6	1 U
Pentachlorophenol in ug/L	1.5	10 U
Phenol in ug/L	560,000	10 U
2,4-Dinitrotoluene in ug/L	3.4	1 U
2,6-Dinitrotoluene in ug/L		1 U
2-Methylnaphthalene in ug/L		1 U
Field Parameters		
Dissolved Oxygen in mg/L		4.69
Eh (ORP) in mVolts		115.1
pH in pH Units		7.16
Specific Conductance in us/cm		19,300
Temperature in deg C		14.5
Turbidity in NTU		15.8

Notes

Concentrations in shaded cells exceed groundwater screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

UJ - Analyte was not detected at or above the reported estimate

Table 16 - Soil Quality Data for Boiler, Fly Ash, and Baghouse Area

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	Boiler-B-01 7/5/2012 (1-2 ft.)	Boiler-B-02 7/5/2012 (1-2 ft.)	Boiler-B-03 7/5/2012 (1-2 ft.)	Boiler-B-04 7/6/2012 (1-1.5 ft.)	Boiler-B-05 7/6/2012 (1-1.5 ft.)
Total Petroleum Hydrocarbons							
Diesel Range Hydrocarbons in mg/kg	2,000	2,000			62,000		
Oil Range Hydrocarbons in mg/kg	2,000	2,000			46,000		
Total TPH in mg/kg	2,000	2,000			108,000		
Metals							
Antimony in mg/kg			7.2	71.9	1.46	1 U	1 U
Arsenic in mg/kg	20	20	33.6	8.77	8.79	4.06	2.11
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			15.3	15.5	18.6	17.1	10.7
Copper in mg/kg			65.4	167	153	33.2	13.3
Lead in mg/kg	250	1,000	118	1,870	342	19.8	6.02
Mercury in mg/kg	2	2	0.2	1.8	1.5	0.1 U	0.1 U
Nickel in mg/kg			12.3	18.4	21.3	78.7	26
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			222	87.9	61.3	54.1	34.9
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.19	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.083	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.092	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	0.192	ND	ND
Semi-Volatile Organics							
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U	3 U	0.03 U	0.03 U
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U	30 U	0.3 U	0.3 U
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
2,4-Dinitrophenol in mg/kg			0.9 U	0.9 U	90 U	0.9 U	0.9 U
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
2-Chlorophenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
2-Methylphenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
2-Nitroaniline in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
2-Nitrophenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U	60 U	0.6 U	0.6 U
3-Nitroaniline in mg/kg			3 U	3 U	300 U	3 U	3 U
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U	90 U	0.9 U	0.9 U

Table 16 - Soil Quality Data for Boiler, Fly Ash, and Baghouse Area

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	Boiler-B-01 7/5/2012 (1-2 ft.)	Boiler-B-02 7/5/2012 (1-2 ft.)	Boiler-B-03 7/5/2012 (1-2 ft.)	Boiler-B-04 7/6/2012 (1-1.5 ft.)	Boiler-B-05 7/6/2012 (1-1.5 ft.)
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
4-Chloroaniline in mg/kg	5	660	3 U	3 U	300 U	3 U	3 U
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
4-Nitroaniline in mg/kg			3 U	3 U	300 U	3 U	3 U
4-Nitrophenol in mg/kg			0.9 U	0.9 U	90 U	0.9 U	0.9 U
Acenaphthene in mg/kg			0.03 U	0.03 U	31	0.03 U	0.03 U
Acenaphthylene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Anthracene in mg/kg			0.03 U	0.03 U	32	0.03 U	0.03 U
Benzo(g,h,i)perylene in mg/kg			0.037	0.15	11	0.03 U	0.03 U
Benzoic acid in mg/kg			1.5 U	1.5 U	150 U	1.5 U	1.5 U
Benzyl alcohol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
Benzyl butyl phthalate in mg/kg	530	69,000	0.065	0.03 U	3 U	0.03 U	0.03 U
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.48 U	0.48 U	48 U	0.48 U	1.0 fc
Carbazole in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Dibenzofuran in mg/kg			0.03 U	0.03 U	18	0.04	0.03 U
Diethyl phthalate in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Dimethyl phthalate in mg/kg			0.033	0.03 U	3 U	0.03 U	0.03 U
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
Fluoranthene in mg/kg			0.19	0.26	16	0.11	0.032
Fluorene in mg/kg			0.03 U	0.03 U	64	0.03 U	0.03 U
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U	9 U	0.09 U	0.09 U
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Nitrobenzene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U	3 U	0.03 U	0.03 U
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U	3 U	0.03 U	0.03 U
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U	30 U	0.3 U	0.3 U
Phenanthrene in mg/kg			0.03 U	0.11	300	0.072	0.03 U
Phenol in mg/kg			0.3 U	0.3 U	30 U	0.3 U	0.3 U
Pyrene in mg/kg			0.18	0.29	120	0.081	0.034
Benz(a)anthracene in mg/kg	1.4	180	0.059	0.19	32	0.032	0.03 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.039	0.2	26	0.03 U	0.03 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.12	0.27	11	0.05	0.03 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.035	0.096	3 U	0.03 U	0.03 U
Chrysene in mg/kg	140	18,000	0.092	0.22	70	0.043	0.03 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.03 U	0.035	4.5	0.03 U	0.03 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.041	0.15	3.5	0.03 U	0.03 U
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U	3 U	0.03 U	0.03 U
2-Methylnaphthalene in mg/kg			0.03 U	0.053	300	0.11	0.03 U
Naphthalene in mg/kg	5	5	0.053	0.035	5.9	0.28	0.03 U
Total cPAH (TEQ) in mg/kg	0.14	2	0.068	0.276	32.1	0.028	ND
Dioxins/Furans							
2,3,7,8-TCDD in mg/kg	1.1E-05	1.5E-03	3.17E-07 J	2.20E-06		1.61E-06	8.80E-07 U
1,2,3,7,8-PeCDD in mg/kg			1.31E-06 J	6.38E-06		3.49E-06	2.20E-06 U
1,2,3,4,7,8-HxCDD in mg/kg			1.81E-06 J	1.38E-05		2.32E-06 J	2.20E-06 U
1,2,3,6,7,8-HxCDD in mg/kg			4.20E-06	3.61E-05		5.64E-06	4.71E-07 J
1,2,3,7,8,9-HxCDD in mg/kg	1.6E-04	2.1E-02	3.74E-06	3.06E-05		5.84E-06	2.23E-07 J
1,2,3,4,6,7,8-HpCDD in mg/kg			4.14E-05	3.67E-04		6.05E-05	5.64E-06
OCDD in mg/kg			1.90E-04	5.35E-04		5.70E-04	4.01E-05
2,3,7,8-TCDF in mg/kg			3.64E-06	2.04E-05		1.26E-05	1.70E-07 J
1,2,3,7,8-PeCDF in mg/kg			9.40E-07 J	5.66E-06		3.89E-06	2.20E-06 U
2,3,4,7,8-PeCDF in mg/kg			1.29E-06 J	8.29E-06		3.11E-06	2.20E-06 U
1,2,3,4,7,8-HxCDF in mg/kg			1.97E-06 J	1.46E-05		3.81E-06	2.12E-07 J
1,2,3,6,7,8-HxCDF in mg/kg			1.02E-06 J	7.06E-06		2.19E-06 J	2.20E-06 U
1,2,3,7,8,9-HxCDF in mg/kg			2.69E-06 U	2.82E-07 J		2.11E-07 J	2.20E-06 U
2,3,4,6,7,8-HxCDF in mg/kg			1.17E-06 J	5.87E-06		1.96E-06 J	2.20E-06 U
1,2,3,4,6,7,8-HpCDF in mg/kg			1.13E-05	1.04E-05		2.00E-05	1.31E-06 J
1,2,3,4,7,8,9-HpCDF in mg/kg			5.69E-07 J	2.71E-06 J		6.12E-07 J	9.05E-08 J
OCDF in mg/kg			1.68E-05	1.60E-05		2.58E-05	2.94E-06 J
Total 2,3,7,8 TCDD (TEQ) in mg/kg	1.1E-05	1.5E-03	4.17E-06	2.69E-05		9.90E-06	1.74E-07

Notes

Concentrations in shaded cells exceed unrestricted soil screening leve

Concentrations within bold border exceed industrial soil screening level

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result

Table 17A - Soil Quality Data for Hazardous Waste Cage

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	HW-B-01 6/29/2012 (0-1 ft.)	HW-B-01 6/29/2012 (3-4 ft.)	HW-B-01 6/29/2012 (6-7 ft.)	HW-B-02 6/29/2012 (0-1 ft.)	HW-B-02 6/29/2012 (3-4 ft.)	HW-B-02 6/29/2012 (6-7 ft.)	HW-MW-01 6/29/2012 (0-1 ft.)	HW-MW-01 6/29/2012 (3-4 ft.)	HW-MW-01 6/29/2012 (6-7 ft.)
Total Petroleum Hydrocarbons											
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U								
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U								
Total TPH in mg/kg	2,000	2,000	ND								
Metals											
Antimony in mg/kg			1 U	1 U	1 U	1 U	1.19	1.98	9.42	6.15	6.41
Arsenic in mg/kg	20	20	2	2.28	6.34	1.22	4.34	8.05	20.6	16.6	18.5
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			12.3	15.3	14.4	11.5	16.1	19.6	24.8	26.6	30.4
Copper in mg/kg			12.1	11.3	13	11	29.8	23.7	66.1	60.3	46.3
Lead in mg/kg	250	1,000	3.92	1.99	4.26	1.88	41	20.4	198	303	115
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1 U	0.31	0.1 U	0.12
Nickel in mg/kg			25.7	35.8	42.6	28.8	34.1	34.7	35.3	48.5	37.7
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			21.7	94.9	57.2	19.3	60.8	78.5	191	109	107
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organics											
1,2,4-Trichlorobenzene in mg/kg	35	4,500	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,2-Dichlorobenzene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,3-Dichlorobenzene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
1,4-Dichlorobenzene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4,5-Trichlorophenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol in mg/kg	91	12,000	30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dinitrophenol in mg/kg			90 J	0.9 J	0.9 U	0.9 J	0.9 J	0.9 J	0.9 J	0.9 J	0.9 J
2-Chloronaphthalene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Chlorophenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Nitrophenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
3 & 4 Methylphenol in mg/kg			60 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
3-Nitroaniline in mg/kg			300 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4,6-Dinitro-2-methylphenol in mg/kg			90 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
4-Bromophenyl phenyl ether in mg/kg			3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
4-Chloro-3-methylphenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline in mg/kg	5	660	300 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Chlorophenyl phenyl ether in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
4-Nitroaniline in mg/kg			300 U	3 U	3 UJ	3 U	3 U	3 U	3 U	3 U	3 U
4-Nitrophenol in mg/kg			90 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Acenaphthene in mg/kg			3 U	0.03 U	0.032	0.03 U	0.03 U	0.03 U	0.03 U	0.032	0.03 U
Acenaphthylene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

Table 17A - Soil Quality Data for Hazardous Waste Cage

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	HW-B-01 6/29/2012 (0-1 ft.)	HW-B-01 6/29/2012 (3-4 ft.)	HW-B-01 6/29/2012 (6-7 ft.)	HW-B-02 6/29/2012 (0-1 ft.)	HW-B-02 6/29/2012 (3-4 ft.)	HW-B-02 6/29/2012 (6-7 ft.)	HW-MW-01 6/29/2012 (0-1 ft.)	HW-MW-01 6/29/2012 (3-4 ft.)	HW-MW-01 6/29/2012 (6-7 ft.)
Anthracene in mg/kg			3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Benzo(g,h,i)perylene in mg/kg			3 UJ	0.03 U	0.03 U	0.03 U	0.082	0.03 U	0.038	0.034	0.031
Benzoic acid in mg/kg			150 J	1.5 J	1.5 U	1.5 J	1.5 J	1.5 J	1.5 J	1.5 J	1.5 J
Benzyl alcohol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzyl butyl phthalate in mg/kg	530	69,000	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethoxy)methane in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethyl) ether in mg/kg	0.91	120	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Carbazole in mg/kg			3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Dibenzofuran in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Diethyl phthalate in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Dimethyl phthalate in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Di-n-butyl phthalate in mg/kg			3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Di-n-octyl phthalate in mg/kg			3 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Fluoranthene in mg/kg			3 U	0.03 U	0.066 J	0.03 U	0.091	0.081	0.06	0.093	0.25
Fluorene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.033	0.03 U	0.03 U	0.03 U
Hexachlorobenzene in mg/kg	0.63	82	3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorobutadiene in mg/kg	13	1,700	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorocyclopentadiene in mg/kg			9 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Hexachloroethane in mg/kg	71	9,400	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Isophorone in mg/kg	1,100	140,000	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Nitrobenzene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
N-Nitrosodiphenylamine in mg/kg	200	27,000	3 U	0.03 U	0.03 UJ	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Pentachlorophenol in mg/kg	2.5	330	30 U	0.3 U	0.3 UJ	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene in mg/kg			3 U	0.03 U	0.049 J	0.03 U	0.033	0.084	0.042	0.085	0.21
Phenol in mg/kg			30 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene in mg/kg			3 U	0.03 U	0.072 J	0.03 U	0.13 J	0.081 J	0.085 J	0.10 J	0.22 J
Benz(a)anthracene in mg/kg	1.4	180	3 U	0.03 U	0.03 U	0.03 U	0.098	0.03 U	0.042	0.04	0.055
Benzo(a)pyrene in mg/kg	0.14	0.14	3 UJ	0.03 U	0.03 U	0.03 U	0.12	0.03 U	0.05	0.044	0.041
Benzo(b)fluoranthene in mg/kg	1.4	180	3 UJ	0.03 U	0.03 U	0.03 U	0.13	0.035	0.06	0.055	0.065
Benzo(k)fluoranthene in mg/kg	14	1,800	3 UJ	0.03 U	0.03 U	0.03 U	0.05	0.03 U	0.03 U	0.03 U	0.03 U
Chrysene in mg/kg	140	18,000	3 U	0.03 U	0.03 U	0.03 U	0.11	0.03 U	0.048	0.047	0.063
Dibenzo(a,h)anthracene in mg/kg	0.14	18	3 UJ	0.03 U	0.03 U	0.03 U	0.033	0.03 U	0.03 U	0.03 U	0.03 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	3 UJ	0.03 U	0.03 U	0.03 U	0.096	0.035	0.05	0.049	0.045
2,4-Dinitrotoluene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,6-Dinitrotoluene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-Methylnaphthalene in mg/kg			3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Naphthalene in mg/kg	5	5	3 U								
Total cPAH (TEQ) in mg/kg	0.14	2	ND	ND	ND	ND	0.162	0.027	0.072	0.062	0.061
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs in mg/kg	1	10	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 17B - Groundwater Quality Data for Hazardous Waste Cage

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	HW-MW-01 7/2-3/2012
Dissolved Metals		
Dissolved Antimony in ug/L	640	1.04
Dissolved Arsenic in ug/L	5	14.9
Dissolved Beryllium in ug/L	270	1 U
Dissolved Cadmium in ug/L	8.8	1 U
Dissolved Chromium (Total) in ug/L		2.96
Dissolved Copper in ug/L	2.4	3.37
Dissolved Lead in ug/L	8.1	1 U
Dissolved Mercury in ug/L	0.15	0.1 U
Dissolved Nickel in ug/L	8.2	18
Dissolved Selenium in ug/L	71	20
Dissolved Silver in ug/L	1.9	1 U
Dissolved Thallium in ug/L	0.47	1 U
Dissolved Zinc in ug/L	81	4.04
Total Metals		
Total Antimony in ug/L	640	3.51
Total Arsenic in ug/L	5	14.9
Total Beryllium in ug/L	270	1 U
Total Cadmium in ug/L	8.8	1 U
Total Chromium (Total) in ug/L		6.86
Total Copper in ug/L	2.4	8.28
Total Lead in ug/L	8.1	6.81
Total Mercury in ug/L	0.15	0.1 U
Total Nickel in ug/L	8.2	30.1
Total Selenium in ug/L	71	10.5
Total Silver in ug/L	1.9	1 U
Total Thallium in ug/L	0.47	1 U
Total Zinc in ug/L	81	21.9
Conventional Chemistry Parameters		
Total Suspended Solids in mg/L		15
Polycyclic Aromatic Hydrocarbons (PAHs)		
Acenaphthene in ug/L	640	0.05 U
Acenaphthylene in ug/L		0.05 U
Anthracene in ug/L	26,000	0.05 U
Benzo(g,h,i)perylene in ug/L		0.05 U
Fluoranthene in ug/L	90	0.05 U
Fluorene in ug/L	3,500	0.05 U
Phenanthrene in ug/L		0.05 U
Pyrene in ug/L	2,600	0.05 U
Naphthalene in ug/L	170	0.051
Benz(a)anthracene in ug/L	0.018	0.01 U
Benzo(a)pyrene in ug/L	0.018	0.01 U
Benzo(b)fluoranthene in ug/L	0.018	0.01 U
Benzo(k)fluoranthene in ug/L	0.018	0.01 U
Chrysene in ug/L	0.018	0.01 U
Dibenzo(a,h)anthracene in ug/L	0.018	0.01 U
Indeno(1,2,3-cd)pyrene in ug/L	0.018	0.01 U
Total cPAHs TEQ in ug/L	0.018	ND
Volatile Organic Compounds		
1,1,1,2-Tetrachloroethane in ug/L	7.4	1 U
1,1,1-Trichloroethane in ug/L	11,000	1 U
1,1,2,2-Tetrachloroethane in ug/L	4	1 U
1,1,2-Trichloroethane in ug/L	7.9	1 U
1,1-Dichloroethane in ug/L	2,300	1 U
1,1-Dichloroethene in ug/L	3.2	1 U
1,1-Dichloropropene in ug/L		1 U
1,2,3-Trichlorobenzene in ug/L		1 U
1,2,3-Trichloropropane in ug/L		1 U
1,2,4-Trichlorobenzene in ug/L	2	1 U
1,2,4-Trimethylbenzene in ug/L	24	1 U
1,2-Dibromo-3-chloropropane in ug/L		10 U
1,2-Dibromoethane (EDB) in ug/L	0.74	1 U

Table 17B - Groundwater Quality Data for Hazardous Waste Cage

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	HW-MW-01 7/2-3/2012
1,2-Dichlorobenzene in ug/L	1,300	1 U
1,2-Dichloroethane (EDC) in ug/L	4.2	1 U
1,2-Dichloropropane in ug/L	15	1 U
1,3,5-Trimethylbenzene in ug/L	25	1 U
1,3-Dichlorobenzene in ug/L	960	1 U
1,3-Dichloropropane in ug/L		1 U
1,4-Dichlorobenzene in ug/L	190	1 U
2,2-Dichloropropane in ug/L		1 U
2-Butanone in ug/L	350,000	10 U
2-Chlorotoluene in ug/L		1 U
2-Hexanone in ug/L		10 U
4-Chlorotoluene in ug/L		1 U
4-Methyl-2-pentanone in ug/L	11,000	10 U
Acetone in ug/L		12
Benzene in ug/L	2.4	0.35 U
Bromobenzene in ug/L		1 U
Bromodichloromethane in ug/L	0.09	1 U
Bromoform in ug/L	140	1 U
Bromomethane in ug/L	13	1 U
Carbon tetrachloride in ug/L	0.22	1 U
Chlorobenzene in ug/L	100	1 U
Chloroethane in ug/L	12	1 U
Chloroform in ug/L	1.2	1 U
Chloromethane in ug/L	5.2	10 U
cis-1,2-Dichloroethene (DCE) in ug/L	160	1 U
cis-1,3-Dichloropropene in ug/L		1 U
Dibromochloromethane in ug/L	0.22	1 U
Dibromomethane in ug/L		1 U
Dichlorodifluoromethane in ug/L	9.9	1 U
Ethylbenzene in ug/L	2,100	1 U
Hexachlorobutadiene in ug/L	0.81	1 U
Isopropylbenzene in ug/L	720	1 U
Methylene chloride in ug/L	94	5 U
Methyl-Tert-Butyl Ether in ug/L	610	1 U
n-Propylbenzene in ug/L		1 U
p-Isopropyltoluene in ug/L		1 U
sec-Butylbenzene in ug/L		1 U
Styrene in ug/L	78	1 U
tert-Butylbenzene in ug/L		1 U
Tetrachloroethene (PCE) in ug/L	0.39	1 U
Toluene in ug/L	15,000	1 U
trans-1,2-Dichloroethene in ug/L	130	1 U
trans-1,3-Dichloropropene in ug/L		1 U
Trichloroethene (TCE) in ug/L	0.42	1 U
Trichlorofluoromethane in ug/L	120	1 U
Vinyl chloride in ug/L	0.35	0.2 U
m,p-Xylenes in ug/L	310	2 U
o-Xylene in ug/L	440	1 U
Xylenes (total) in ug/L	310	ND
Naphthalene in ug/L	170	1 U
Field Parameters		
Dissolved Oxygen in mg/L		1.08
Eh (ORP) in mVolts		-77.6
pH in pH Units		7.04
Specific Conductance in us/cm		3,857
Temperature in deg C		17.2
Turbidity in NTU		51.2

Notes

Concentrations in shaded cells exceed groundwater screening level.

U - Analyte was not detected at or above the reported result.

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-01 5/25/2012 (1-2.5 ft.)	GF-B-02 5/25/2012 (2.5-4 ft.)	GF-B-03 5/29/2012 (1-2.5 ft.)	GF-B-03 5/29/2012 (7.5-9 ft.)	GF-B-03 5/29/2012 (11-12.5 ft.)	GF-B-04 5/25/2012 (2.5-4 ft.)	GF-B-04 5/25/2012 (7.5-9 ft.)	GF-B-05 5/29/2012 (1-2.5 ft.)	GF-B-05 5/29/2012 (7.5-9 ft.)	GF-B-06 5/29/2012 (1-2.5 ft.)
Total Petroleum Hydrocarbons												
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	2 U	2 U	6.8	2 U	2 U	40	18	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	50 UJ	50 UJ	50 UJ	65	50 U	270 J	76 J	50 UJ
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	250 U	250 U	250 U	620	250 U	720	250 U	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	ND	ND	ND	685	ND	990	201 J	ND
Metals												
Antimony in mg/kg			1 U	3.02	1 U	1 U	1 U	1 U	1 U	3.68	1 U	1 U
Arsenic in mg/kg	20	20	6.05	12.6	3.58	6.32	9.26	6.75	1.63	11.7	3.36	3.1
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			13.2	12.9	17.4	21	21.1	19.5	9.67	16.2	7.74	10.2
Copper in mg/kg			16.2	23.4	21.3	27.6	52.4	26.9	8.01	42.1	7.85	19.9
Lead in mg/kg	250	1,000	4.66	32.4	6.86	12.4	34	5.82	2.79	59.5	5.26	6.94
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	0.1 U
Nickel in mg/kg			28.7	21.1	36.3	24	24.9	23.2	12.1	44.1	12.3	31.2
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Zinc in mg/kg			22.4	140	41.9	44.5	93.5	40	18.2	214	19.8	24.5
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene in mg/kg					0.01 U	0.1 U	0.019			0.01 U	0.015	0.41
Acenaphthylene in mg/kg					0.01 U	0.3	0.065			0.01 U	0.01 U	0.048
Anthracene in mg/kg					0.01 U	0.25	0.057			0.012	0.022	0.32
Benzo(g,h,i)perylene in mg/kg					0.01 U	0.83	0.2			0.043	0.011	0.1
Fluoranthene in mg/kg					0.019	3.1	0.53			0.061	0.19	0.64
Fluorene in mg/kg					0.01 U	0.29	0.036			0.014	0.029	0.36
Phenanthrene in mg/kg					0.016	3.3	0.37			0.05	0.025	1
Pyrene in mg/kg					0.016	3	0.49			0.074	0.18	0.51
Naphthalene in mg/kg	5	5			0.012	0.54	0.13			0.12	0.018	0.42
Benz(a)anthracene in mg/kg	1.4	180			0.01 U	0.77	0.17			0.028	0.042	0.15
Benzo(a)pyrene in mg/kg	0.14	0.14			0.01 U	1.2	0.25			0.039	0.022	0.091
Benzo(b)fluoranthene in mg/kg	1.4	180			0.01 U	1.5	0.32			0.056	0.039	0.14
Benzo(k)fluoranthene in mg/kg	14	1,800			0.01 U	0.42	0.11			0.013	0.01 U	0.029
Chrysene in mg/kg	140	18,000			0.01	1.3	0.26			0.054	0.051	0.17
Dibenzo(a,h)anthracene in mg/kg	0.14	18			0.01 U	0.14	0.033			0.01 U	0.01 U	0.014
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180			0.01 U	0.88	0.2			0.036	0.01 U	0.092
Total cPAHs TEQ in mg/kg	0.14	2			0.0076	1.58	0.336			0.0533	0.0321	0.135
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.051	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	7.6	0.81	0.05 U
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.11	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.052	1.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1	0.05 U	0.05 U
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene in mg/kg	5	5						0.05 U	0.05 U			
Semi-Volatile Organics												
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-01 5/25/2012 (1-2.5 ft.)	GF-B-02 5/25/2012 (2.5-4 ft.)	GF-B-03 5/29/2012 (1-2.5 ft.)	GF-B-03 5/29/2012 (7.5-9 ft.)	GF-B-03 5/29/2012 (11-12.5 ft.)	GF-B-04 5/25/2012 (2.5-4 ft.)	GF-B-04 5/25/2012 (7.5-9 ft.)	GF-B-05 5/29/2012 (1-2.5 ft.)	GF-B-05 5/29/2012 (7.5-9 ft.)	GF-B-06 5/29/2012 (1-2.5 ft.)
2,4-Dinitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U			0.9 U	0.9 U	0.9 U
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
2-Chlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
2-Methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
2-Nitroaniline in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
2-Nitrophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U	0.6 U	0.6 U	0.6 U			0.6 U	0.6 U	0.6 U
3-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U	3 U			3 U	3 U	3 U
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U			0.9 U	0.9 U	0.9 U
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
4-Chloroaniline in mg/kg	5	660	3 U	3 U	3 U	3 U	3 U			3 U	3 U	3 U
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
4-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U	3 U			3 U	3 U	3 U
4-Nitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U	0.9 U			0.9 U	0.9 U	0.9 U
Acenaphthene in mg/kg			0.03 U	0.03 U								
Acenaphthylene in mg/kg			0.03 U	0.03 U								
Anthracene in mg/kg			0.03 U	0.03 U								
Benzo(g,h,i)perylene in mg/kg			0.03 U	0.03 U								
Benzoic acid in mg/kg			1.5 U	1.5 U	1.5 U	1.5 U	1.5 U			1.5 U	1.5 U	1.5 U
Benzyl alcohol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U			0.48 U	0.48 U	0.48 U
Carbazole in mg/kg			0.03 U	0.03 U	0.03 U	0.29	0.033			0.03 U	0.03 U	0.053
Dibenzofuran in mg/kg			0.03 U	0.03 U	0.03 U	0.19	0.03 U			0.03 U	0.033	0.27
Diethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Dimethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.042	0.03 U	0.03 U
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 UJ
Fluoranthene in mg/kg			0.03 U	0.062								
Fluorene in mg/kg			0.03 U	0.03 U								
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U	0.09 U	0.09 U	0.09 U			0.09 U	0.09 U	0.09 U
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Nitrobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
Phenanthrene in mg/kg			0.03 U	0.064								
Phenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U
Pyrene in mg/kg			0.03 U	0.064 J								
Benz(a)anthracene in mg/kg	1.4	180	0.03 U	0.03 U								
Benzo(a)pyrene in mg/kg	0.14	0.14	0.03 U	0.03 U								
Benzo(b)fluoranthene in mg/kg	1.4	180	0.03 U	0.03 U								
Benzo(k)fluoranthene in mg/kg	14	1,800	0.03 U	0.03 U								
Chrysene in mg/kg	140	18,000	0.03 U	0.03 U								
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.03 U	0.03 U								
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.03 U	0.03 U								
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U	0.03 U			0.03 U	0.03 U	0.03 U
2-Methylnaphthalene in mg/kg			0.03 U	0.03 U	0.03 U	0.22	0.03 U			0.036	0.03 U	0.21
Naphthalene in mg/kg	5	5	0.031	0.083								
Total cPAH (TEQ) in mg/kg	0.14	2	ND	ND								
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs in mg/kg	1	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dioxins/Furans												
2,3,7,8-TCDD in mg/kg	1.1E-05	1.5E-03	1.01E-06 U	4.67E-07 U	1.04E-06 U			1.21E-06 U		6.87E-07 U		1.02E-06 U
1,2,3,7,8-PeCDD in mg/kg			2.51E-06 U	8.31E-07 U	2.59E-06 U			3.02E-06 U		2.32E-06 J		2.55E-06 U
1,2,3,4,7,8-HxCDD in mg/kg			1.51E-07 U	1.20E-06 U	4.22E-07 J			3.02E-06 U		5.11E-06		2.13E-07 J
1,2,3,6,7,8-HxCDD in mg/kg			5.09E-07 J	2.56E-06 J	3.24E-07 J			3.02E-06 U		2.00E-05		4.19E-07 U
1,2,3,7,8,9-HxCDD in mg/kg	1.6E-04	2.1E-02	4.53E-07 U	2.32E-06 J	3.76E-07 U			3.02E-06 U		1.10E-05		4.38E-07 J
1,2,3,4,6,7,8-HpCDD in mg/kg			3.76E-06	2.14E-05	6.77E-06			1.28E-06 J		3.95E-04		6.06E-06
OCDD in mg/kg			1.72E-05	1.06E-04 J	5.66E-05			1.27E-05 J		3.83E-03 J		4.91E-05
2,3,7,8-TCDF in mg/kg			5.19E-07 U	2.37E-06	3.65E-07 J			1.21E-06 U		7.05E-06		1.02E-06 U
1,2,3,7,8-PeCDF in mg/kg			2.51E-06 U	1.07E-06 U	2.59E-06 U			3.02E-06 U		1.98E-06 U		2.55E-06 U
2,3,4,7,8-PeCDF in mg/kg			2.51E-06 U	1.55E-06 J	2.48E-07 U			3.02E-06 U		2.66E-06 J		1.51E-07 U
1,2,3,4,7,8-HxCDF in mg/kg			1.79E-07 J	1.63E-06 U	2.73E-07 U			3.02E-06 U		5.91E-06 U		1.50E-07 J
1,2,3,6,7,8-HxCDF in mg/kg			2.51E-06 U	1.55E-06 J	2.16E-07 U			3.02E-06 U		2.78E-06		1.43E-07 J
1,2,3,7,8,9-HxCDF in mg/kg			2.51E-06 U	2.68E-06 U	2.59E-06 U			3.02E-06 U		2.73E-06 U		2.55E-06 U
2,3,4,6,7,8-HxCDF in mg/kg			2.02E-07 J	2.97E-06 U	2.96E-07 J			3.02E-06 U		3.92E-06		1.95E-07 J
1,2,3,4,6,7,8-HpCDF in mg/kg			5.71E-07 J	5.74E-06	2.80E-06			3.02E-06 U		5.69E-05		1.16E-06 J
1,2,3,4,7,8,9-HpCDF in mg/kg			2.51E-06 U	4.44E-07 U	2.59E-06 U			3.02E-06 U		1.65E-06 U		2.55E-06 U
OCDF in mg/kg			1.06E-06 U	9.92E-06	4.93E-06 J			6.03E-06 U		8.49E-05 J		3.11E-06 J
Total 2,3,7,8 TCDD (TEQ) in mg/kg	1.1E-05	1.5E-03	2.29E-07	3.57E-06	4.16E-07			1.66E-08		1.48E-05		2.89E-07

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-06 5/29/2012 (7.5-9 ft.)	GF-B-06 5/29/2012 (20-21.5 ft.)	GF-B-07 5/24/2012 (1-2.5 ft.)	GF-B-07 5/24/2012 (7.5-9 ft.)	GF-B-07 5/24/2012 (10-11.5 ft.)	GF-B-08 5/30/2012 (1-2.5 ft.)	GF-B-08 5/30/2012 (7.5-9 ft.)	GF-B-09 6/28/2012 (1-2.5 ft.)	GF-B-09 6/28/2012 (2.5-3.5 ft.)	GF-B-09 FD 6/28/2012 (2.5-3.5 ft.)
Total Petroleum Hydrocarbons												
Gasoline Range Hydrocarbons in mg/kg	100	100	5	2 U	2 U	2 U		2 U	2 U	2 U		
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	150 J	50 U	110	50 U		50 U	50 U	50 U		
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	480	250 U		250 U	250 U	250 U		
Total TPH in mg/kg	2,000	2,000	275 J	ND	590	ND		ND	ND	ND		
Metals												
Antimony in mg/kg			1 U	1 U	1 U	1 U		1.07	1 U	1 U		
Arsenic in mg/kg	20	20	4.64	1.5	1.81	2		6.46	5.15	3.88		
Beryllium in mg/kg			1 U	1 U	1 U	1 U		1 U	1 U	1 U		
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U		1 U	1 U	1 U		
Chromium (Total) in mg/kg			17.5	7.65	9.99	9.19		17.2	8.85	13.9		
Copper in mg/kg			20.7	5.84	10.1	9.15		65.6	11.9	16.4		
Lead in mg/kg	250	1,000	13.4	1.28	2.49	5.11		214	59.8	18.3		
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.58	0.13		
Nickel in mg/kg			20.7	15.3	23.8	17.4		22.3	14.1	25.3		
Selenium in mg/kg			1 U	1 U	1 U	1 U		1 U	1 U	1 U		
Silver in mg/kg			1 U	1 U	1 U	1 U		1 U	1 U	1 U		
Thallium in mg/kg			1 U	1 U	1 U	1 U		1 U	1 U	1 U		
Zinc in mg/kg			40.2	13	16.3	26.8		65.3	33.8	31.3		
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene in mg/kg			0.14	0.01 U								
Acenaphthylene in mg/kg			0.019	0.01 U								
Anthracene in mg/kg			0.13	0.01 U								
Benzo(g,h,i)perylene in mg/kg			0.034	0.01 U								
Fluoranthene in mg/kg			0.28	0.01 U								
Fluorene in mg/kg			0.16	0.01 U								
Phenanthrene in mg/kg			0.57	0.01 U								
Pyrene in mg/kg			0.2	0.01 U								
Naphthalene in mg/kg	5	5	0.09	0.01 U								
Benz(a)anthracene in mg/kg	1.4	180	0.074	0.01 U								
Benzo(a)pyrene in mg/kg	0.14	0.14	0.039	0.01 U								
Benzo(b)fluoranthene in mg/kg	1.4	180	0.054	0.01 U								
Benzo(k)fluoranthene in mg/kg	14	1,800	0.016	0.01 U								
Chrysene in mg/kg	140	18,000	0.076	0.01 U								
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.01 U	0.01 U								
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.025	0.01 U								
Total cPAHs TEQ in mg/kg	0.14	2	0.0572	ND								
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U		0.25 U	0.25 U	0.25 U		
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U		0.25 U	0.25 U	0.25 U		
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Chloromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 U	0.5 U	0.5 U		
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 U	0.5 UJ	0.5 U		
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U		0.25 U	0.25 U	0.25 U		
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
p-Isopropyltoluene in mg/kg			0.25	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U		0.025 U	0.025 U	0.025 U		
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.1 U	0.1 U		
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND		ND	ND	ND		
Naphthalene in mg/kg	5	5										
Semi-Volatile Organics												
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-06 5/29/2012 (7.5-9 ft.)	GF-B-06 5/29/2012 (20-21.5 ft.)	GF-B-07 5/24/2012 (1-2.5 ft.)	GF-B-07 5/24/2012 (7.5-9 ft.)	GF-B-07 5/24/2012 (10-11.5 ft.)	GF-B-08 5/30/2012 (1-2.5 ft.)	GF-B-08 5/30/2012 (7.5-9 ft.)	GF-B-09 6/28/2012 (1-2.5 ft.)	GF-B-09 6/28/2012 (2.5-3.5 ft.)	GF-B-09 FD 6/28/2012 (2.5-3.5 ft.)
2,4-Dinitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U		0.9 U	0.9 U	0.9 J		
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
2-Chlorophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
2-Methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
2-Nitroaniline in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
2-Nitrophenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U	0.6 U	0.6 U		0.6 U	0.6 U	0.6 U		
3-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U		3 U	3 U	3 U		
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U		0.9 U	0.9 U	0.9 U		
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
4-Chloroaniline in mg/kg	5	660	3 U	3 U	3 U	3 U		3 U	3 U	3 U		
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
4-Nitroaniline in mg/kg			3 U	3 U	3 U	3 U		3 U	3 U	3 U		
4-Nitrophenol in mg/kg			0.9 U	0.9 U	0.9 U	0.9 U		0.9 U	0.9 U	0.9 U		
Acenaphthene in mg/kg					0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Acenaphthylene in mg/kg					0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Anthracene in mg/kg					0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Benzo(g,h,i)perylene in mg/kg					0.063	0.03 U		0.035	0.03 U	0.03 U		
Benzoic acid in mg/kg			1.5 U	1.5 U	1.5 U	1.5 U		1.5 U	1.5 U	1.5 J		
Benzyl alcohol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.48 U	0.48 U	0.48 U	0.48 U		0.48 U	0.48 U	0.48 U		
Carbazole in mg/kg			0.037	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Dibenzofuran in mg/kg			0.12	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Diethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Dimethyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Fluoranthene in mg/kg					0.053	0.03 U		0.03 U	0.03 U	0.03 U		
Fluorene in mg/kg					0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U	0.09 U	0.09 U		0.09 U	0.09 U	0.09 U		
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Nitrobenzene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
Phenanthrene in mg/kg					0.077	0.03 U		0.03 U	0.03 U	0.031		
Phenol in mg/kg			0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U		
Pyrene in mg/kg					0.068	0.03 U		0.03 U	0.03 U	0.036 J		
Benz(a)anthracene in mg/kg	1.4	180			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Benzo(a)pyrene in mg/kg	0.14	0.14			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Benzo(b)fluoranthene in mg/kg	1.4	180			0.03 U	0.03 U		0.06	0.03 U	0.03 U		
Benzo(k)fluoranthene in mg/kg	14	1,800			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Chrysene in mg/kg	140	18,000			0.03 U	0.03 U		0.031	0.03 U	0.03 U		
Dibenzo(a,h)anthracene in mg/kg	0.14	18			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180			0.03 U	0.03 U		0.033	0.03 U	0.03 U		
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
2-Methylnaphthalene in mg/kg			0.087	0.03 U	0.075	0.03 U		0.03 U	0.03 U	0.03 U		
Naphthalene in mg/kg	5	5			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U		
Total cPAH (TEQ) in mg/kg	0.14	2			ND	ND		0.02911				
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U			0.4	0.1 U	0.1 U		
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 U			0.1 U	0.1 U	0.1 U		
Total PCBs in mg/kg	1	10	ND	ND	ND			0.7	ND	ND		
Dioxins/Furans												
2,3,7,8-TCDD in mg/kg	1.1E-05	1.5E-03			1.01E-06 U		1.10E-06 U	1.16E-06 J			1.02E-06 U	8.60E-07 U
1,2,3,7,8-PeCDD in mg/kg					2.54E-06 U		2.76E-06 U	5.13E-07 U			2.56E-06 U	1.75E-07 J
1,2,3,4,7,8-HxCDD in mg/kg					2.54E-06 U		2.76E-06 U	8.54E-07 J			1.07E-07 J	1.86E-07 J
1,2,3,6,7,8-HxCDD in mg/kg					2.54E-06 U		2.76E-06 U	1.85E-06 J			2.70E-07 J	4.43E-07 J
1,2,3,7,8,9-HxCDD in mg/kg	1.6E-04	2.1E-02			2.54E-06 U		2.76E-06 U	2.04E-06 J			2.32E-07 J	2.55E-07 J
1,2,3,4,6,7,8-HpCDD in mg/kg					2.21E-06 J		1.79E-06 J	2.04E-05			3.73E-06	8.01E-06
OCDD in mg/kg					1.37E-05 J		4.29E-06 J	1.00E-04			1.90E-05	1.39E-04
2,3,7,8-TCDF in mg/kg					1.01E-06 U		1.21E-06 U	2.12E-06			1.02E-06 U	6.59E-07 J
1,2,3,7,8-PeCDF in mg/kg					2.54E-06 U		2.55E-07 U	1.26E-06 U			2.56E-06 U	1.93E-07 J
2,3,4,7,8-PeCDF in mg/kg					2.54E-06 U		2.76E-06 U	1.65E-06 U			2.56E-06 U	2.64E-07 J
1,2,3,4,7,8-HxCDF in mg/kg					2.28E-07 U		3.55E-07 U	3.52E-06			1.69E-07 J	3.60E-07 J
1,2,3,6,7,8-HxCDF in mg/kg					2.54E-06 U		1.81E-07 J	1.45E-06 J			9.83E-08 J	1.67E-07 J
1,2,3,7,8,9-HxCDF in mg/kg					2.54E-06 U		2.76E-06 U	2.90E-06 U			2.56E-06 U	2.15E-06 U
2,3,4,6,7,8-HxCDF in mg/kg					2.54E-06 U		2.76E-06 U	1.17E-06 U			9.98E-08 J	2.19E-07 J
1,2,3,4,6,7,8-HpCDF in mg/kg					5.70E-07 U		8.16E-07 J	9.37E-06			7.20E-07 J	1.22E-06 J
1,2,3,4,7,8,9-HpCDF in mg/kg					2.54E-06 U		2.76E-06 U	7.48E-07 J			2.56E-06 U	9.79E-08 J
OCDF in mg/kg					6.97E-07 J		5.52E-06 U	1.14E-05			1.51E-06 J	4.24E-06 J
Total 2,3,7,8 TCDD (TEQ) in mg/kg	1.1E-05	1.5E-03			5.49E-08		1.29E-07	2.68E-06			1.48E-07	5.59E-07

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-09 6/28/2012 (7.5-9 ft.)	GF-B-09 FD 6/28/2012 (7.5-9 ft.)	GF-B-10 5/24/2012 (1-1.25 ft.)	GF-B-10 5/24/2012 (1-2.5 ft.)	GF-B-10 5/24/2012 (7.5-9 ft.)	GF-B-10 5/24/2012 (10-11.5 ft.)	GF-B-11 5/24/2012 (1-2.5 ft.)	GF-B-11 5/24/2012 (7.5-9 ft.)	GF-B-12 6/28/2012 (1-2.5 ft.)	GF-B-12 6/28/2012 (7.5-9 ft.)
Total Petroleum Hydrocarbons												
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U			2 U	2 U		2 U	2 U	2 U	2 U
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	6,400			50 U	50 U		50 U	50 U	50 U	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U			250 U	250 U		250 U	250 U	250 U	250 U
Total TPH in mg/kg	2,000	2,000	6,520			ND	ND		ND	ND	ND	ND
Metals												
Antimony in mg/kg			1 U			2.64	1 U		1 U	1 U	1 U	1 U
Arsenic in mg/kg	20	20	1.12			4.86	1 U		6.48	5.65	4.79	2.77
Beryllium in mg/kg			1 U			1 U	1 U		1 U	1 U	1 U	1 U
Cadmium in mg/kg	2	2	1 U			1 U	1 U		1 U	1 U	1 U	1 U
Chromium (Total) in mg/kg			10.7			14.4	6.76		8.72	16.9	36.6	33.3
Copper in mg/kg			10.8			13.3	4.42		26.4	21.2	20.8	15.9
Lead in mg/kg	250	1,000	11.2			5.89	1.94		659	15.4	116	33.1
Mercury in mg/kg	2	2	0.1 U			0.1 U	0.1 U		0.1 U	0.1 U	0.21	0.1 U
Nickel in mg/kg			19.1			29.1	7.32		17.6	27.1	10.4	29.5
Selenium in mg/kg			1 U			1 U	1 U		1 U	1 U	1 U	1 U
Silver in mg/kg			1 U			1 U	1 U		1 U	1 U	1 U	1 U
Thallium in mg/kg			1 U			1 U	1 U		1 U	1 U	1 U	1 U
Zinc in mg/kg			26.6			27.7	9.76		50	37.8	21.8	46.5
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene in mg/kg											0.01 U	0.01 U
Acenaphthylene in mg/kg											0.01 U	0.01 U
Anthracene in mg/kg											0.01 U	0.01 U
Benzo(g,h,i)perylene in mg/kg											0.01 U	0.01 U
Fluoranthene in mg/kg											0.01 U	0.01 U
Fluorene in mg/kg											0.01 U	0.01 U
Phenanthrene in mg/kg											0.01 U	0.01 U
Pyrene in mg/kg											0.01 U	0.01 U
Naphthalene in mg/kg	5	5									0.01 U	0.01 U
Benz(a)anthracene in mg/kg	1.4	180									0.01 U	0.01 U
Benzo(a)pyrene in mg/kg	0.14	0.14									0.01 U	0.01 U
Benzo(b)fluoranthene in mg/kg	1.4	180									0.01 U	0.01 U
Benzo(k)fluoranthene in mg/kg	14	1,800									0.01 U	0.01 U
Chrysene in mg/kg	140	18,000									0.01 U	0.01 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18									0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180									0.01 U	0.01 U
Total cPAHs TEQ in mg/kg	0.14	2									ND	ND
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethane in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloropropene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2,3-Trichlorobenzene in mg/kg			0.25 U			0.25 U	0.25 U		0.25 U	0.25 U	0.25 U	0.25 U
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U			0.25 U	0.25 U		0.25 U	0.25 U	0.25 U	0.25 U
1,2,4-Trimethylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichlorobenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloropropane in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,3,5-Trimethylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichlorobenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,3-Dichloropropane in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1,4-Dichlorobenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
2,2-Dichloropropane in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
2-Hexanone in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
4-Chlorotoluene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
4-Methyl-2-pentanone in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Acetone in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Benzene in mg/kg	0.03	0.03	0.03 U			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Bromobenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Bromodichloromethane in mg/kg	16	2,100	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Bromoform in mg/kg	130	17,000	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Bromomethane in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride in mg/kg	14	1,900	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Chlorobenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Chloroethane in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Chloroform in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Chloromethane in mg/kg			0.5 U			0.5 UJ	0.5 UJ		0.5 UJ	0.5 UJ	0.5 U	0.5 U
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
cis-1,3-Dichloropropene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Dibromochloromethane in mg/kg	12	1,600	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Dibromomethane in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Dichlorodifluoromethane in mg/kg			0.5 U			0.5 UJ	0.5 UJ		0.5 UJ	0.5 UJ	0.5 U	0.5 U
Ethylbenzene in mg/kg	6	6	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U			0.25 U	0.25 U		0.25 U	0.25 U	0.25 U	0.25 U
Isopropylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Methylene chloride in mg/kg	0.02	0.02	0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
n-Propylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
p-Isopropyltoluene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.35	0.05 U	0.05 U
sec-Butylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Styrene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
tert-Butylbenzene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U			0.025 U	0.025 U		0.025 U	0.025 U	0.025 U	0.025 U
Toluene in mg/kg	7	7	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
trans-1,2-Dichloroethene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
trans-1,3-Dichloropropene in mg/kg			0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U			0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Trichlorofluoromethane in mg/kg			0.5 U			0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride in mg/kg	0.67	88	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U			0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
o-Xylene in mg/kg	16,000	700,000	0.05 U			0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
Xylenes (total) in mg/kg	9	9	ND			ND	ND		ND	ND	ND	ND
Naphthalene in mg/kg	5	5										
Semi-Volatile Organics												
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-09 6/28/2012 (7.5-9 ft.)	GF-B-09 FD 6/28/2012 (7.5-9 ft.)	GF-B-10 5/24/2012 (1-1.25 ft.)	GF-B-10 5/24/2012 (1-2.5 ft.)	GF-B-10 5/24/2012 (7.5-9 ft.)	GF-B-10 5/24/2012 (10-11.5 ft.)	GF-B-11 5/24/2012 (1-2.5 ft.)	GF-B-11 5/24/2012 (7.5-9 ft.)	GF-B-12 6/28/2012 (1-2.5 ft.)	GF-B-12 6/28/2012 (7.5-9 ft.)
2,4-Dinitrophenol in mg/kg			0.9 J	0.9 J		0.9 U	0.9 U		0.9 U	0.9 U	0.9 U	0.9 J
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2-Chlorophenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
2-Methylphenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
2-Nitroaniline in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2-Nitrophenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U		0.6 U	0.6 U		0.6 U	0.6 U	0.6 U	0.6 U
3-Nitroaniline in mg/kg			3 U	3 U		3 U	3 U		3 U	3 U	3 U	3 U
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U		0.9 U	0.9 U		0.9 U	0.9 U	0.9 U	0.9 U
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
4-Chloroaniline in mg/kg	5	660	3 U	3 U		3 U	3 U		3 U	3 U	3 U	3 U
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
4-Nitroaniline in mg/kg			3 U	3 U		3 U	3 U		3 U	3 U	3 U	3 U
4-Nitrophenol in mg/kg			0.9 U	0.9 U		0.9 U	0.9 U		0.9 U	0.9 U	0.9 U	0.9 U
Acenaphthene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.12	0.03 U	0.03 U
Acenaphthylene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Anthracene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Benzo(g,h,i)perylene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.031	0.03 U	0.03 U
Benzoic acid in mg/kg			1.5 J	1.5 J		1.5 U	1.5 U		1.5 U	1.5 U	1.5 U	1.5 J
Benzyl alcohol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.48 U	0.48 U		0.48 U	0.48 U		0.48 U	0.48 U	0.48 U	0.48 U
Carbazole in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Dibenzofuran in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Diethyl phthalate in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Dimethyl phthalate in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Fluoranthene in mg/kg			0.062	0.03 U		0.03 U	0.03 U		0.03 U	0.042	0.03 U	0.03 U
Fluorene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U		0.09 U	0.09 U		0.09 U	0.09 U	0.09 U	0.09 U
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Nitrobenzene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene in mg/kg			0.035	0.03 U		0.03 U	0.03 U		0.03 U	0.036	0.03 U	0.03 U
Phenol in mg/kg			0.3 U	0.3 U		0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U
Pyrene in mg/kg			0.064 J	0.033 J		0.03 U	0.03 U		0.03 U	0.04	0.03 U	0.03 U
Benz(a)anthracene in mg/kg	1.4	180	0.041	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Benzo(a)pyrene in mg/kg	0.14	0.14	0.039	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Benzo(b)fluoranthene in mg/kg	1.4	180	0.052	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Benzo(k)fluoranthene in mg/kg	14	1,800	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Chrysene in mg/kg	140	18,000	0.039	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.045	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
2-Methylnaphthalene in mg/kg			0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U	0.03 U	0.03 U
Naphthalene in mg/kg	5	5	0.03 U	0.03 U		0.03 U	0.03 U		0.03 U	0.03 U		
Total cPAH (TEQ) in mg/kg	0.14	2	0.056	ND		ND	ND		ND	ND	ND	ND
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1221 in mg/kg			0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1232 in mg/kg			0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1242 in mg/kg			0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1248 in mg/kg			0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U		0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs in mg/kg	1	10	ND	ND		ND	ND		ND	ND	ND	ND
Dioxins/Furans												
2,3,7,8-TCDD in mg/kg	1.1E-05	1.5E-03			1.05E-06 U			1.18E-06 U	1.10E-06 U	1.20E-06 U	1.14E-06 U	
1,2,3,7,8-PeCDD in mg/kg					2.62E-06 U			2.95E-06 U	7.56E-07 J	3.00E-06 U	3.16E-07 J	
1,2,3,4,7,8-HxCDD in mg/kg					6.62E-07 J			2.95E-06 U	1.63E-06 U	3.00E-06 U	2.78E-07 J	
1,2,3,6,7,8-HxCDD in mg/kg					9.73E-06			2.95E-06 U	5.53E-06	3.00E-06 U	2.86E-06 U	
1,2,3,7,8,9-HxCDD in mg/kg	1.6E-04	2.1E-02			2.02E-06 J			2.95E-06 U	3.33E-06 U	3.00E-06 U	7.31E-07 J	
1,2,3,4,6,7,8-HpCDD in mg/kg					2.74E-04			4.20E-06	9.28E-05	3.98E-06	9.28E-06	
OCDD in mg/kg					3.05E-03			3.14E-05	5.11E-04	2.56E-05	5.37E-05	
2,3,7,8-TCDF in mg/kg					1.49E-06			1.18E-06 U	1.00E-06 J	1.20E-06 U	1.14E-06 U	
1,2,3,7,8-PeCDF in mg/kg					4.56E-07 U			2.95E-06 U	6.81E-07 J	3.00E-06 U	2.86E-06 U	
2,3,4,7,8-PeCDF in mg/kg					4.54E-07 J			2.95E-06 U	7.24E-07 J	3.00E-06 U	1.75E-07 J	
1,2,3,4,7,8-HxCDF in mg/kg					2.62E-06 U			2.95E-06 U	1.76E-06 J	2.86E-07 J	2.47E-07 J	
1,2,3,6,7,8-HxCDF in mg/kg					2.62E-06 U			2.95E-06 U	7.67E-07 J	3.00E-06 U	1.32E-07 J	
1,2,3,7,8,9-HxCDF in mg/kg					2.62E-06 U			2.95E-06 U	2.75E-06 U	3.00E-06 U	2.86E-06 U	
2,3,4,6,7,8-HxCDF in mg/kg					1.43E-06 J			2.95E-06 U	9.39E-07 J	3.00E-06 U	1.95E-07 J	
1,2,3,4,6,7,8-HpCDF in mg/kg					5.72E-05			1.19E-06 J	1.04E-05	8.99E-07 J	1.89E-06 J	
1,2,3,4,7,8,9-HpCDF in mg/kg					1.96E-06 J			2.95E-06 U	7.32E-07 J	3.00E-06 U	1.20E-07 J	
OCDF in mg/kg					2.22E-04			2.40E-06 J	1.05E-05	1.50E-06 U	6.17E-06	
Total 2,3,7,8 TCDD (TEQ) in mg/kg	1.1E-05	1.5E-03			5.91E-06			6.40E-08	3.58E-06	8.55E-08	6.58E-07	

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-13 5/24/2012 (1-2.5 ft.)	GF-B-13 5/24/2012 (10-11.5 ft.)	GF-B-14 5/23/2012 (1-2.5 ft.)	GF-B-14 5/23/2012 (7.5-9 ft.)	GF-B-15A 5/23/2012 (1-2.5 ft.)	GF-B-15A 5/23/2012 (7.5-9 ft.)	GF-B-15A 5/23/2012 (10-11.5 ft.)	GF-B-15A 5/23/2012 (15-16.5 ft.)	GF-B-15A 5/23/2012 (25-26.5 ft.)
Total Petroleum Hydrocarbons											
Gasoline Range Hydrocarbons in mg/kg	100	100	2 U	2 U	3	2 U	2 U	2 U	2 U		
Diesel Range Hydrocarbons in mg/kg	2,000	2,000	50 U	50 U	2,900	50 U	50 U	230	50 U	310	50 U
Oil Range Hydrocarbons in mg/kg	2,000	2,000	250 U	250 U	4,900	250 U	250 U	810	250 U	440	250 U
Total TPH in mg/kg	2,000	2,000	ND	ND	7,800	ND	ND	1,040	ND	750	ND
Metals											
Antimony in mg/kg			4	1 U	1.08	1 U	1.74	1.98	1 U		
Arsenic in mg/kg	20	20	2.22	2	4.19	2.12	7.09	6.65	5.17		
Beryllium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Cadmium in mg/kg	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Chromium (Total) in mg/kg			10.2	8.37	9.62	6.82	12.6	17.4	15.5		
Copper in mg/kg			13.6	6.31	12.7	4.2	40.8	63	36.6		
Lead in mg/kg	250	1,000	115	3.69	30.5	1.46	34.4	84.8	119		
Mercury in mg/kg	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U		
Nickel in mg/kg			25.8	14	13.5	12.1	20.6	22.2	21.4		
Selenium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Silver in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Thallium in mg/kg			1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Zinc in mg/kg			23.4	14.1	153	12.3	58.3	69.4	71.5		
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene in mg/kg							0.01 U	0.01 U	0.01 U	0.012	0.2
Acenaphthylene in mg/kg							0.01 U	0.01 U	0.01 U	0.01 U	0.014
Anthracene in mg/kg							0.01 U	0.01 U	0.01 U	0.01 U	0.076
Benzo(g,h,i)perylene in mg/kg							0.036	0.012	0.028	0.012	0.066
Fluoranthene in mg/kg							0.068	0.017	0.029	0.032	0.9
Fluorene in mg/kg							0.01 U	0.01 U	0.01 U	0.01 U	0.099
Phenanthrene in mg/kg							0.027	0.01 U	0.018	0.026	0.22
Pyrene in mg/kg							0.081	0.019	0.035	0.038	0.83
Naphthalene in mg/kg	5	5					0.01 U	0.01 U	0.01 U	0.021	0.099
Benz(a)anthracene in mg/kg	1.4	180					0.035	0.01	0.02	0.011	0.29
Benzo(a)pyrene in mg/kg	0.14	0.14					0.043	0.011	0.042	0.011	0.19
Benzo(b)fluoranthene in mg/kg	1.4	180					0.05	0.013	0.054	0.018	0.34
Benzo(k)fluoranthene in mg/kg	14	1,800					0.018	0.01 U	0.015	0.01 U	0.094
Chrysene in mg/kg	140	18,000					0.049	0.013	0.031	0.018	0.4
Dibenzo(a,h)anthracene in mg/kg	0.14	18					0.01 U	0.01 U	0.01 U	0.01 U	0.014
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180					0.034	0.01	0.026	0.01	0.072
Total cPAHs TEQ in mg/kg	0.14	2					0.0577	0.0154	0.0543	0.0161	0.275
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane in mg/kg	38	5,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1,1-Trichloroethane in mg/kg	2	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1,2,2-Tetrachloroethane in mg/kg	5	660	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1,2-Trichloroethane in mg/kg	18	2,300	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1-Dichloroethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,1-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2,3-Trichlorobenzene in mg/kg			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
1,2,3-Trichloropropane in mg/kg	0.033	4.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
1,2,4-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2-Dibromo-3-chloropropane in mg/kg	1.3	160	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
1,2-Dibromoethane (EDB) in mg/kg	0.005	0.005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2-Dichloroethane (EDC) in mg/kg	11	1,400	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,3,5-Trimethylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,3-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,3-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
1,4-Dichlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
2,2-Dichloropropane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
2-Butanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
2-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
2-Hexanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
4-Chlorotoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
4-Methyl-2-pentanone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Acetone in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Benzene in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U		
Bromobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Bromodichloromethane in mg/kg	16	2,100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Bromoform in mg/kg	130	17,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Bromomethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Carbon tetrachloride in mg/kg	14	1,900	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Chlorobenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Chloroethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Chloroform in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Chloromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		
cis-1,2-Dichloroethene (DCE) in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
cis-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Dibromochloromethane in mg/kg	12	1,600	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ		
Dibromomethane in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Dichlorodifluoromethane in mg/kg			0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		
Ethylbenzene in mg/kg	6	6	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Hexachlorobutadiene in mg/kg	13	1,700	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
Isopropylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Methylene chloride in mg/kg	0.02	0.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Methyl-Tert-Butyl Ether in mg/kg	0.1	0.1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
n-Propylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
p-Isopropyltoluene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
sec-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Styrene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
tert-Butylbenzene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Tetrachloroethene (PCE) in mg/kg	0.05	0.05	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U		
Toluene in mg/kg	7	7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
trans-1,2-Dichloroethene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
trans-1,3-Dichloropropene in mg/kg			0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Trichloroethene (TCE) in mg/kg	0.03	0.03	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U		
Trichlorofluoromethane in mg/kg			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Vinyl chloride in mg/kg	0.67	88	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
m,p-Xylenes in mg/kg	16,000	700,000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U		
o-Xylene in mg/kg	16,000	700,000	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		
Xylenes (total) in mg/kg	9	9	ND	ND	ND	ND	ND	ND	ND		
Naphthalene in mg/kg	5	5									
Semi-Volatile Organics											
1,2,4-Trichlorobenzene in mg/kg	35	4,500	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
1,2-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
1,3-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
1,4-Dichlorobenzene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
2,4,5-Trichlorophenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
2,4,6-Trichlorophenol in mg/kg	91	12,000	0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
2,4-Dichlorophenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
2,4-Dimethylphenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		

Table 18 - Soil Quality Data for General Fill

K-C Worldwide Site Upland Area 110207

Chemical Name	Unrestricted Soil Screening Level (mg/kg)	Industrial Soil Screening Level (mg/kg)	GF-B-13 5/24/2012 (1-2.5 ft.)	GF-B-13 5/24/2012 (10-11.5 ft.)	GF-B-14 5/23/2012 (1-2.5 ft.)	GF-B-14 5/23/2012 (7.5-9 ft.)	GF-B-15A 5/23/2012 (1-2.5 ft.)	GF-B-15A 5/23/2012 (7.5-9 ft.)	GF-B-15A 5/23/2012 (10-11.5 ft.)	GF-B-15A 5/23/2012 (15-16.5 ft.)	GF-B-15A 5/23/2012 (25-26.5 ft.)
2,4-Dinitrophenol in mg/kg			0.9 U	0.9 U	9 U	0.9 U	0.9 U	4.5 U	0.9 U		
2-Chloronaphthalene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
2-Chlorophenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
2-Methylphenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
2-Nitroaniline in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
2-Nitrophenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
3 & 4 Methylphenol in mg/kg			0.6 U	0.6 U	6 U	0.6 U	0.6 U	3 U	0.6 U		
3-Nitroaniline in mg/kg			3 U	3 U	30 U	3 U	3 U	15 U	3 U		
4,6-Dinitro-2-methylphenol in mg/kg			0.9 U	0.9 U	9 U	0.9 U	0.9 U	4.5 U	0.9 U		
4-Bromophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
4-Chloro-3-methylphenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
4-Chloroaniline in mg/kg	5	660	3 U	3 U	30 U	3 U	3 U	15 U	3 U		
4-Chlorophenyl phenyl ether in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
4-Nitroaniline in mg/kg			3 U	3 U	30 U	3 U	3 U	15 U	3 U		
4-Nitrophenol in mg/kg			0.9 U	0.9 U	9 U	0.9 U	0.9 U	4.5 U	0.9 U		
Acenaphthene in mg/kg			0.03 U	0.03 U	0.3 U	0.14					
Acenaphthylene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U					
Anthracene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U					
Benzo(g,h,i)perylene in mg/kg			0.03 U	0.03 U	1	0.03 U					
Benzoic acid in mg/kg			1.5 U	1.5 U	15 U	1.5 U	1.5 U	7.5 U	1.5 U		
Benzyl alcohol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
Benzyl butyl phthalate in mg/kg	530	69,000	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Bis(2-chloro-1-methylethyl) ether in mg/kg	14	1,900	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Bis(2-chloroethoxy)methane in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Bis(2-chloroethyl) ether in mg/kg	0.91	120	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Bis(2-ethylhexyl) phthalate in mg/kg	71	9,400	0.48 U	0.48 U	4.8 U	0.48 U	0.48 U	2.4 U	0.48 U		
Carbazole in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Dibenzofuran in mg/kg			0.03 U	0.03 U	0.3 U	0.038	0.03 U	0.15 U	0.03 U		
Diethyl phthalate in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Dimethyl phthalate in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Di-n-butyl phthalate in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Di-n-octyl phthalate in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Fluoranthene in mg/kg			0.03 U	0.03 U	0.41	0.03 U					
Fluorene in mg/kg			0.03 U	0.03 U	0.3 U	0.073					
Hexachlorobenzene in mg/kg	0.63	82	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Hexachlorobutadiene in mg/kg	13	1,700	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Hexachlorocyclopentadiene in mg/kg			0.09 U	0.09 U	0.9 U	0.09 U	0.09 U	0.45 U	0.09 U		
Hexachloroethane in mg/kg	71	9,400	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Isophorone in mg/kg	1,100	140,000	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Nitrobenzene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
N-Nitroso-di-n-propylamine in mg/kg	0.14	19	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
N-Nitrosodiphenylamine in mg/kg	200	27,000	0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
Pentachlorophenol in mg/kg	2.5	330	0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
Phenanthrene in mg/kg			0.03 U	0.03 U	0.45	0.11					
Phenol in mg/kg			0.3 U	0.3 U	3 U	0.3 U	0.3 U	1.5 U	0.3 U		
Pyrene in mg/kg			0.03 U	0.03 U	2.7	0.052 J					
Benz(a)anthracene in mg/kg	1.4	180	0.03 U	0.03 U	1.1	0.03 U					
Benzo(a)pyrene in mg/kg	0.14	0.14	0.03 U	0.03 U	1.2	0.03 U					
Benzo(b)fluoranthene in mg/kg	1.4	180	0.03 U	0.03 U	0.52	0.03 U					
Benzo(k)fluoranthene in mg/kg	14	1,800	0.03 U	0.03 U	0.3 U	0.03 U					
Chrysene in mg/kg	140	18,000	0.03 U	0.03 U	1.8	0.03 U					
Dibenzo(a,h)anthracene in mg/kg	0.14	18	0.03 U	0.03 U	0.3 U	0.03 U					
Indeno(1,2,3-cd)pyrene in mg/kg	1.4	180	0.03 U	0.03 U	0.3 U	0.03 U					
2,4-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
2,6-Dinitrotoluene in mg/kg			0.03 U	0.03 U	0.3 U	0.03 U	0.03 U	0.15 U	0.03 U		
2-Methylnaphthalene in mg/kg			0.03 U	0.03 U	0.3 U	0.073	0.03 U	0.15 U	0.03 U		
Naphthalene in mg/kg	5	5	0.03 U	0.03 U	0.3 U	0.2					
Total cPAH (TEQ) in mg/kg	0.14	2	ND	ND	1.425	ND					
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016 in mg/kg	14	1,900	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1221 in mg/kg			0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1232 in mg/kg			0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1242 in mg/kg			0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1248 in mg/kg			0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1254 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.1 U		
Aroclor 1260 in mg/kg	0.5	66	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.24 U	0.22		
Total PCBs in mg/kg	1	10	ND	ND	ND	ND	ND	ND	0.52		
Dioxins/Furans											
2,3,7,8-TCDD in mg/kg	1.1E-05	1.5E-03	1.00E-06 U	1.22E-06 U	5.71E-07 J		5.37E-07 U				
1,2,3,7,8-PeCDD in mg/kg			2.50E-06 U	3.05E-06 U	1.22E-06 J		8.76E-07 U				
1,2,3,4,7,8-HxCDD in mg/kg			2.50E-06 U	3.05E-06 U	1.74E-06 J		1.79E-06 J				
1,2,3,6,7,8-HxCDD in mg/kg			6.32E-07 J	3.05E-06 U	2.77E-06		3.86E-06				
1,2,3,7,8,9-HxCDD in mg/kg	1.6E-04	2.1E-02	7.16E-07 J	3.05E-06 U	2.27E-06 J		3.53E-06				
1,2,3,4,6,7,8-HpCDD in mg/kg			5.59E-06	5.87E-07 U	3.14E-05		5.93E-05				
OCDD in mg/kg			2.12E-05	2.42E-06 J	1.24E-04		5.46E-04				
2,3,7,8-TCDF in mg/kg			7.39E-07 U	1.22E-06 U	5.09E-06		2.57E-06				
1,2,3,7,8-PeCDF in mg/kg			2.08E-07 U	3.05E-06 U	1.25E-06 J		9.38E-07 U				
2,3,4,7,8-PeCDF in mg/kg			3.35E-07 J	3.05E-06 U	1.71E-06 J		1.50E-06 U				
1,2,3,4,7,8-HxCDF in mg/kg			6.47E-07 J	3.05E-06 U	1.38E-06 J		1.91E-06 U				
1,2,3,6,7,8-HxCDF in mg/kg			2.74E-07 J	3.05E-06 U	8.81E-07 J		1.17E-06 U				
1,2,3,7,8,9-HxCDF in mg/kg			2.50E-06 U	3.05E-06 U	2.73E-06 U		2.68E-07 U				
2,3,4,6,7,8-HxCDF in mg/kg			3.92E-07 J	3.05E-06 U	1.52E-06 J		1.77E-06 J				
1,2,3,4,6,7,8-HpCDF in mg/kg			2.45E-06 J	2.37E-07 J	4.30E-06		1.24E-05				
1,2,3,4,7,8,9-HpCDF in mg/kg			2.50E-06 U	9.26E-07 J	4.02E-07 J		2.36E-06 J				
OCDF in mg/kg			2.29E-06 U	6.09E-06 U	6.17E-06		3.19E-05				
Total 2,3,7,8 TCDD (TEQ) in mg/kg	1.1E-05	1.5E-03	5.01E-07	1.82E-08	4.05E-06		4.49E-06				

Notes

Concentrations in shaded cells exceed unrestricted soil screening level

Concentrations within bold border exceed industrial soil screening level.

J - Analyte was positively identified. The reported result is an estimate.

U - Analyte was not detected at or above the reported result.

UJ - Analyte was not detected at or above the reported estimate

Table 19 - Groundwater Quality Data for Upgradient Groundwater Quality

K-C Worldwide Site Upland Area 110207

Chemical Name	Groundwater Screening Level	UG-MW-01 7/3/2012	UG-MW-02 7/3/2012
Dissolved Metals			
Dissolved Antimony in ug/L	640	1 U	1 U
Dissolved Arsenic in ug/L	5	1 U	1 U
Dissolved Beryllium in ug/L	270	1 U	1 U
Dissolved Cadmium in ug/L	8.8	1 U	1 U
Dissolved Chromium (Total) in ug/L		1.05	1 U
Dissolved Copper in ug/L	2.4	1 U	1 U
Dissolved Lead in ug/L	8.1	1 U	1 U
Dissolved Mercury in ug/L	0.15	0.1 U	0.1 U
Dissolved Nickel in ug/L	8.2	5.04	2.31
Dissolved Selenium in ug/L	71	1 U	1 U
Dissolved Silver in ug/L	1.9	1 U	1 U
Dissolved Thallium in ug/L	0.47	1 U	1 U
Dissolved Zinc in ug/L	81	1.75	5.03
Total Metals			
Total Antimony in ug/L	640	1 U	
Total Arsenic in ug/L	5	1 U	
Total Beryllium in ug/L	270	1 U	
Total Cadmium in ug/L	8.8	1 U	
Total Chromium (Total) in ug/L		1 U	
Total Copper in ug/L	2.4	1 U	
Total Lead in ug/L	8.1	1 U	
Total Mercury in ug/L	0.15	0.1 U	
Total Nickel in ug/L	8.2	4.79	
Total Selenium in ug/L	71	1 U	
Total Silver in ug/L	1.9	1 U	
Total Thallium in ug/L	0.47	1 U	
Total Zinc in ug/L	81	2.42	
Conventional Chemistry Parameters			
Total Suspended Solids in mg/L		10 U	10 U
Field Parameters			
Dissolved Oxygen in mg/L		3.86	0.3
Eh (ORP) in mVolts		53.5	-36.7
pH in pH Units		6.77	7.03
Specific Conductance in us/cm		400.7	556
Temperature in deg C		13	14.5
Turbidity in NTU			2.99

Notes

Concentrations in shaded cells exceed groundwater screening level

U - Analyte was not detected at or above the reported result

Table 20 - Low Tide and High Tide Water Level Data, July 3 and 6, 2012

K-C Worldwide Site Upland Area 110207

		7/3/2012 - Low Tide			7/6/2012 - High Tide		
Well	Top of Casing Elevation (NAVD88)	Depth to Water (ft bTOC)	Time	Groundwater Elevation (NAVD88)	Depth to Water (ft bTOC)	Time	Groundwater Elevation (NAVD88)
AP-MW-1	15.45	5.83	10:56	9.62	5.83	7:47	9.62
CMS-MW-1	14.7	1.72	11:05	12.98	1.73	7:50	12.97
HW-MW-1	15.43	5.08	11:30	10.35	3.72	7:59	11.71
MW-1	14.15	8.78	10:50	5.37	6.48	7:32	7.67
MW-2	13.23	8.55	11:02	4.68	5.1	7:34	8.13
MW-3	15.11	7.24	11:31	7.87	6.93	7:49	8.18
MW-4	15.2	7.02	11:26	8.18	6.34	7:53	8.86
MW-5	13.36	8.85	10:17	4.51	5.92	7:34	7.44
MW-6	20.43	13.04	10:50	7.39	13.1	7:29	7.33
NRP-MW-1	13.56	6.07	11:02	7.49	5.72	7:41	7.84
NRP-MW-2	15.09	8.5	11:12	6.59	7.99	7:37	7.1
NRP-MW-3	13.3	7.72	10:28	5.58	5.93	7:30	7.37
NRP-MW-4	15.39	5.05	10:54	10.34	4.94	7:48	10.45
NRP-MW-5	15.14	4.48	10:50	10.66	4.43	7:49	10.71
OMS-MW-1	14.68	11.41	10:45	3.27	7.11	7:27	7.57
REC2-MW-5	15.05	0.73	11:10	14.32	0.91	7:56	14.14
REC3-MW-1	14.43	8.91	10:30	5.52	7.45	7:38	6.98
REC5-MW-1	15.49	6.85	10:41	8.64	7.05	7:42	8.44
REC6-MW-1	15.38	5.49	11:45	9.89	NM[2]	-	-
REC6-MW-2	16.67	9.05	11:53	7.62	8.83	7:25	7.84
REC7-MW-1	13.14	7.7	10:35	5.44	5.86	7:20	7.28
REC7-MW-2	15.11	7.01	11:50	8.10	6.64	7:43	8.47
REC7-MW-3	14.92	9.43	10:40	5.49	6.97	7:25	7.95
REC7-MW-4	12.69	9.18	11:16	3.51	4.93	7:39	7.76
UG-MW-1	16.95	1.21	11:58	15.74	1.2	7:55	15.75
UG-MW-2	18.05	4.55	11:00	13.50	4.5	7:55	13.55
UST29-MW-1	15.24	4.69	11:40	10.55	NM[2]	-	-
UST68-MW-1	15.12	7.55	11:16	7.57	7.19	7:46	7.93
UST68-MW-2	15.33	7.98	11:27	7.35	7.92	7:43	7.41
UST68-MW-4	14.34	6.85	11:07	7.49	6.54	7:37	7.8
UST68-MW-5	14.12	7.1	11:00	7.02	6.89	7:31	7.23
UST69-MW-1	14.88	4.6	11:41	10.28	3.6	7:30	11.28
UST70-MW-1	14.65	8.23	10:35	6.42	7.13	7:34	7.52
UST70-MW-2	14.23	7.64	10:33	6.59	6.9	7:32	7.33
UST71-MW-1	13.66	6.43	10:41	7.23	5.96	7:35	7.7
TM-1[1]	16.63	19.47	11:05	-2.84	9	7:44	7.63

1 - Tidal monitoring station

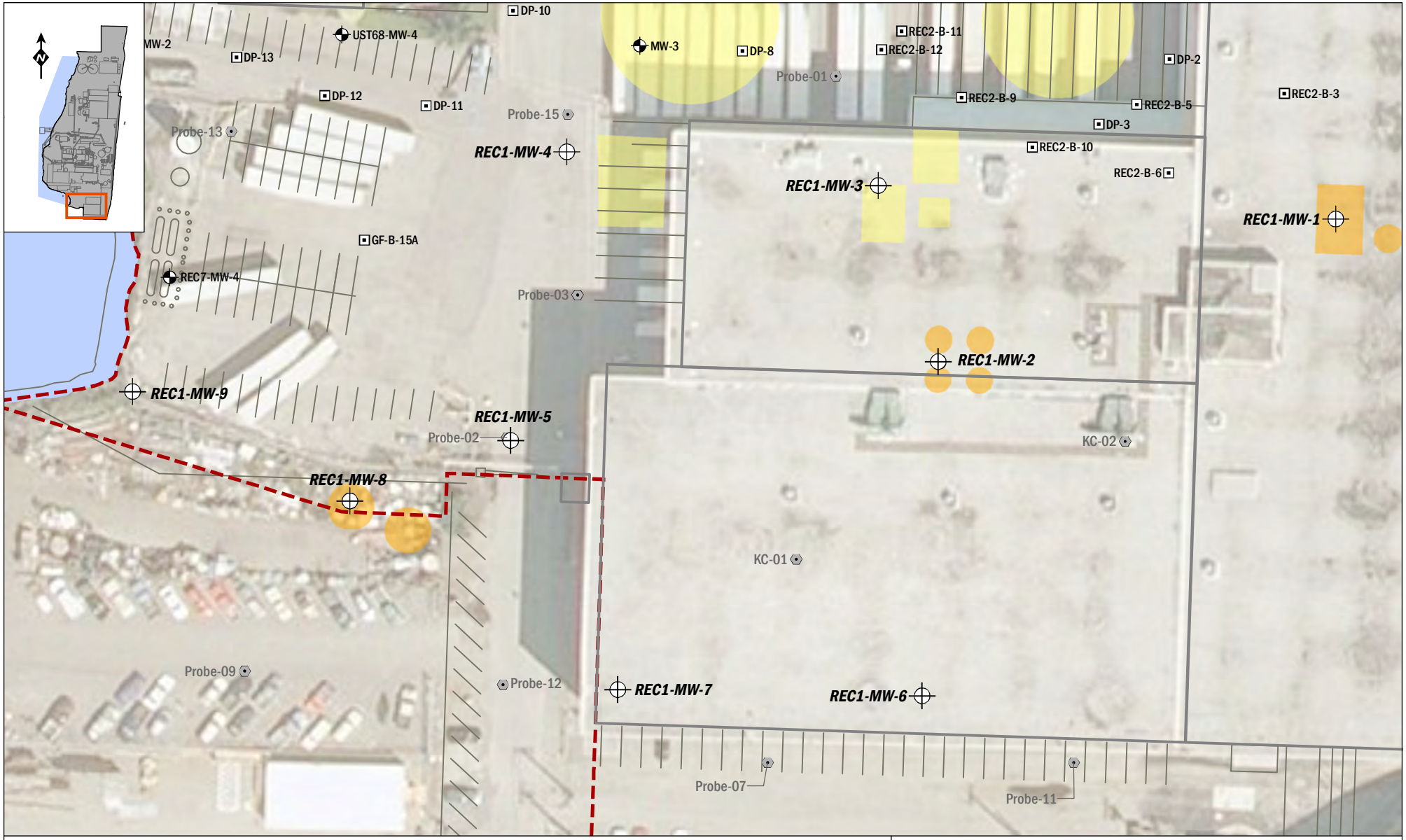
2 - Not Measured

Phase 2 ESA Exploration Locations within Upland Area

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 1
	PROJECT NO. 110207	REV BY: ---	

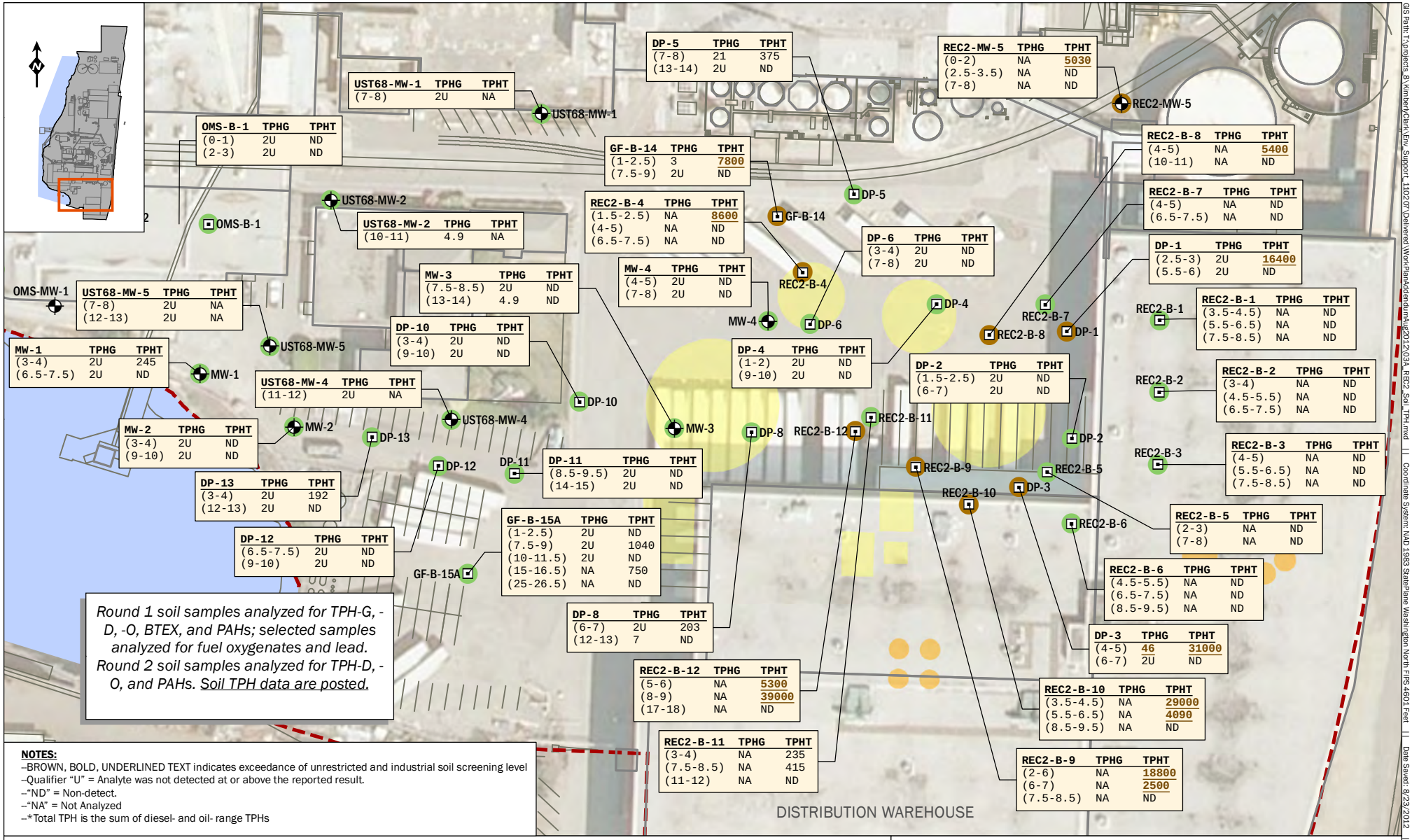
GIS Path: T:\projects_8\KimberlyClark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\01_Phase2ESA_Explorations.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/31/2012 || User: pwittman || Print Date: 8/31/2012



REC 1 Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 2
	PROJECT NO. 110207	REV BY: ---	



NOTES:
--BROWN, BOLD, UNDERLINED TEXT indicates exceedance of unrestricted and industrial soil screening level
--Qualifier "U" = Analyte was not detected at or above the reported result.
--"ND" = Non-detect.
--"NA" = Not Analyzed
--*Total TPH is the sum of diesel- and oil- range TPHs

- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Locations with No Exceedance
- Approx. Loc. of Former Chevron Facilities
- Approx. Loc. of Former Assoc. Oil Co. Facilities
- Upland Area Boundary

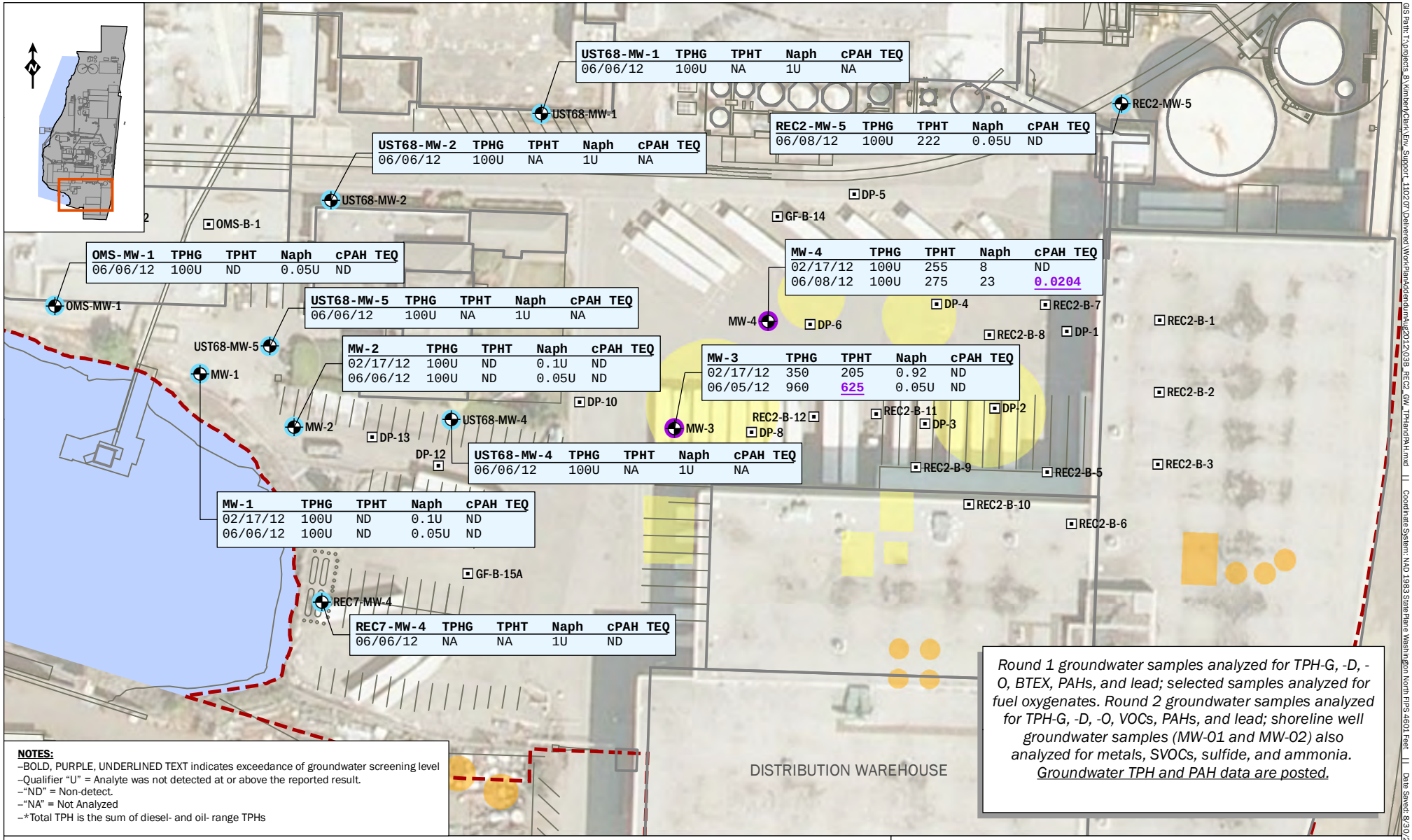
Exploration ID → REC2-B-8 TPHG TPHT (4-5) NA 5400 / (10-11) NA ND
Sample Depth Interval
Gasoline-Range TPH in Soil (in mg/kg)
Total TPH in Soil (in mg/kg)*

0 80 160
Feet

REC 2 Soil TPH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 3A
	PROJECT NO. 110207	REV BY: ---	

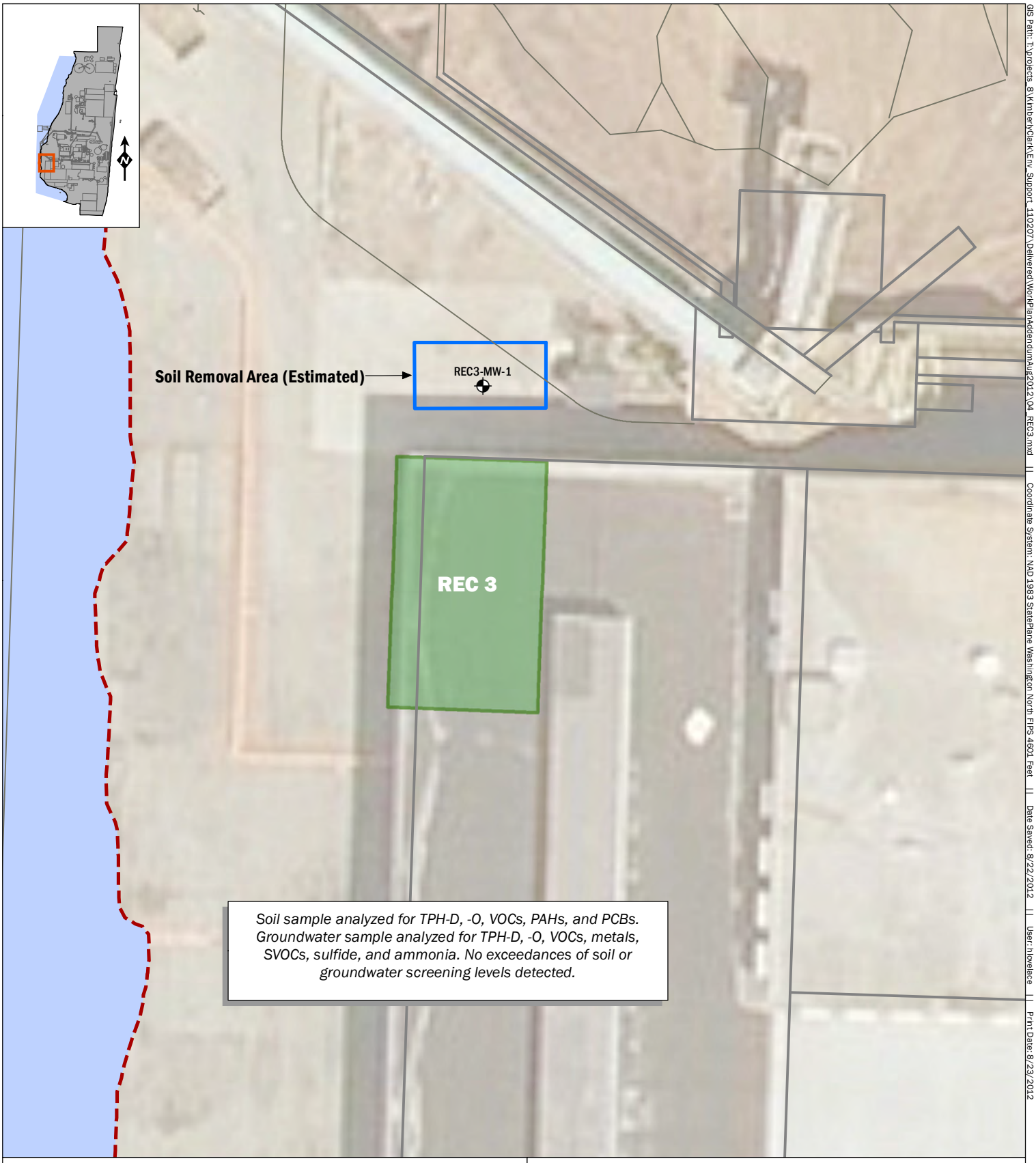


REC 2 Groundwater TPH and PAH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect Consulting	AUG-2012	BY: SJG / PPW	FIGURE NO. 3B
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly-Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\03B_REC2_GW_TPHandPAH.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/30/2012 || User: hlovelace || Print Date: 8/31/2012



Monitoring Well
Upland Area Boundary
Soil Removal Area (Estimated)
REC 3

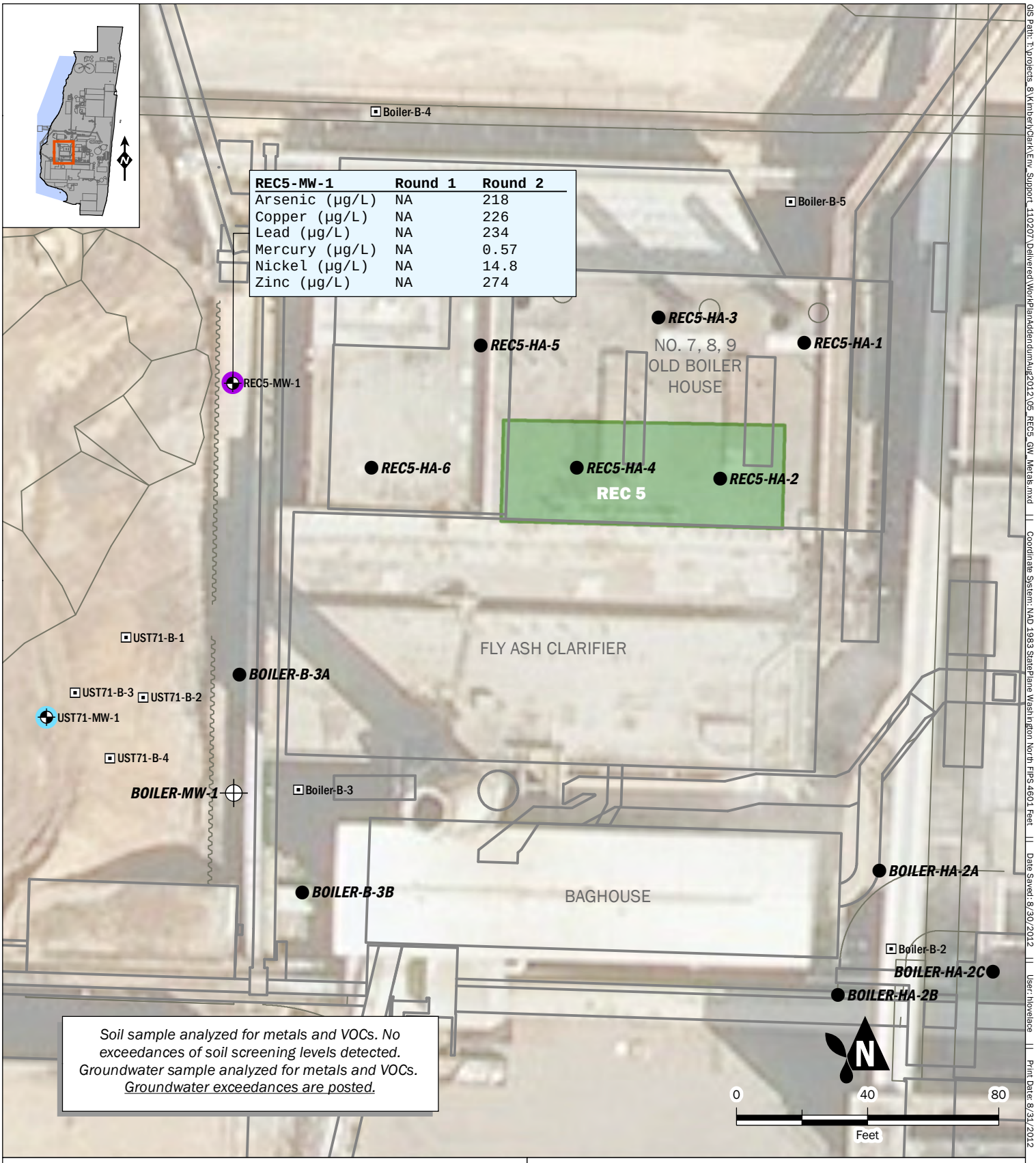
N

0 30 60
Feet

REC 3 Soil and Groundwater Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 4
	PROJECT NO. 110207	REV BY: ---	



Proposed Soil Borings
Proposed Monitoring Well
Soil Boring
Monitoring Well
Locations with Metals Exceedance
Locations with No Metals Exceedance

Exploration ID

Concentration in Groundwater from February 2012 Sampling

REC5-MW-1	Round 1	Round 2
Arsenic (µg/L)	NA	218
Copper (µg/L)	NA	226
Lead (µg/L)	NA	234
Mercury (µg/L)	NA	0.57
Nickel (µg/L)	NA	14.8
Zinc (µg/L)	NA	274

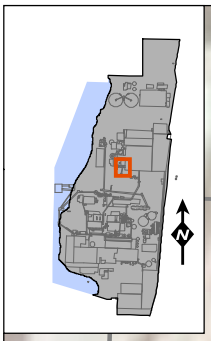
Metal Exceeding Screening Level (maximum of total and dissolved concentrations is shown)

Concentration in Groundwater from June/July 2012 Sampling

REC 5 Groundwater Metals Exceedances and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 5
	PROJECT NO. 110207	REV BY: ---	



PAPER MACHINE BUILDING

UST29-MW-1		
Soil Result(mg/kg)	**(7-8 ft)**	**(8-9 ft)**
Benz(a)anthracene	NA	18
Benzo(a)pyrene	NA	12
Benzo(b)fluoranthene	NA	15
Total cPAHs TEQ	NA	17
Gasoline Range TPH	150	NA
Total TPHs	2620	NA

REC6-MW-1	
Soil Result(mg/kg)	**(6 ft)**
Ethylbenzene	630
Gasoline Range TPH	9700
Total Xylenes	2250

UST29-MW-1		
GW Result (µg/L)	**Round 1**	**Round 2**
Benz(a)anthracene	NA	0.036
Benzo(b)fluoranthene	NA	0.026
Chrysene	NA	0.037
Total cPAHs TEQ	NA	0.0261

REC6-MW-1		
GW Result (µg/L)	**Round 1**	**Round 2**
Gasoline Range TPH	NA	24000
m,p-Xylenes	NA	6900
o-Xylene	NA	1600
Total Xylenes	NA	8500

REC6-MW-1

UST29-MW-1

Because of proximity, data from REC 6 and UST 29, 67, 69 explorations are combined for interpretation. Soil sample analyses: REC6-MW-01 = TPH-G, VOCs. UST29-MW-01 = TPH-G, -D, -O, PAHs, and VOCs. UST69-MW-01 = TPH-G, VOCs, and lead.

Groundwater sample analyses: REC6-MW-01 and REC6-MW-02 = TPH-G, VOCs, formaldehyde; also metals, SVOCs, sulfide, and ammonia for REC6-MW-02. UST29-MW-01 = TPH-G, -D, -O, PAHs, and VOCs. UST69-MW-01 = TPH-G, VOCs, and lead.
Soil and groundwater exceedances are posted.

N

0 20 40

Feet

Monitoring Well

Location with Exceedance

Limits of USTs 29/67 Excavation

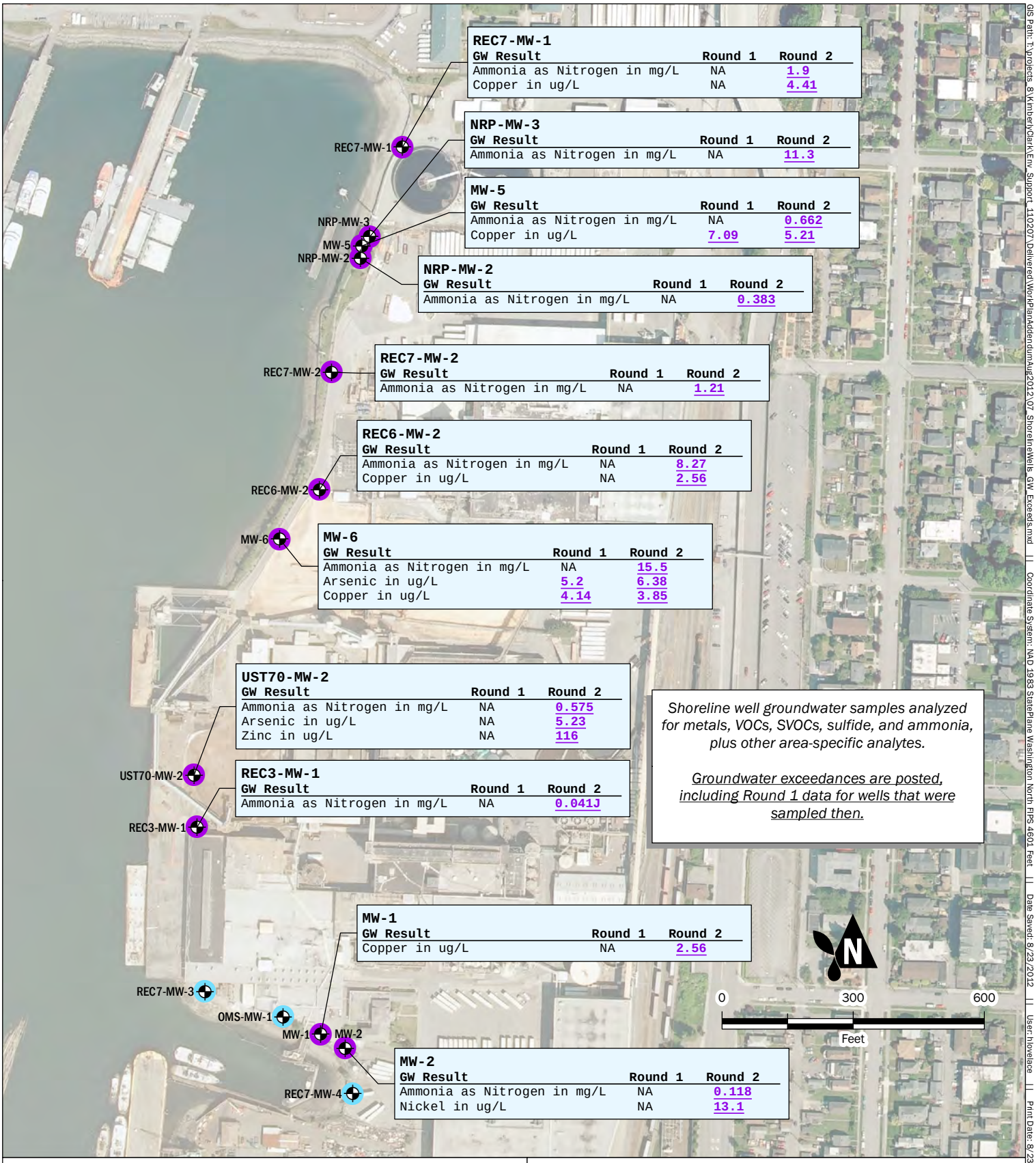
NOTES:
–Shoreline well REC6-MW-2 is not shown. It is shown with groundwater exceedances on Figure 7 and had no soil data collected.
–BOLD, PURPLE, UNDERLINED TEXT indicates exceedance of groundwater screening level
–BOLD, BROWN, UNDERLINED TEXT indicates exceedance of unrestricted soil screening level
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

REC 6, USTs 29, 67, 69 Area Soil and Groundwater Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 6
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\06_REC6_SoilAndGW_Exceeds.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/23/2012 || User: hlovelace || Print Date: 8/23/2012



Monitoring Well

Locations with Exceedance

Locations with No Exceedance

NOTES:

–Well locations without data boxes did not have any detections above site screening levels.

–BOLD, PURPLE, UNDERLINED TEXT indicates exceedance of groundwater screening level

–For samples with both dissolved and total metals analyses, the higher concentration is listed.

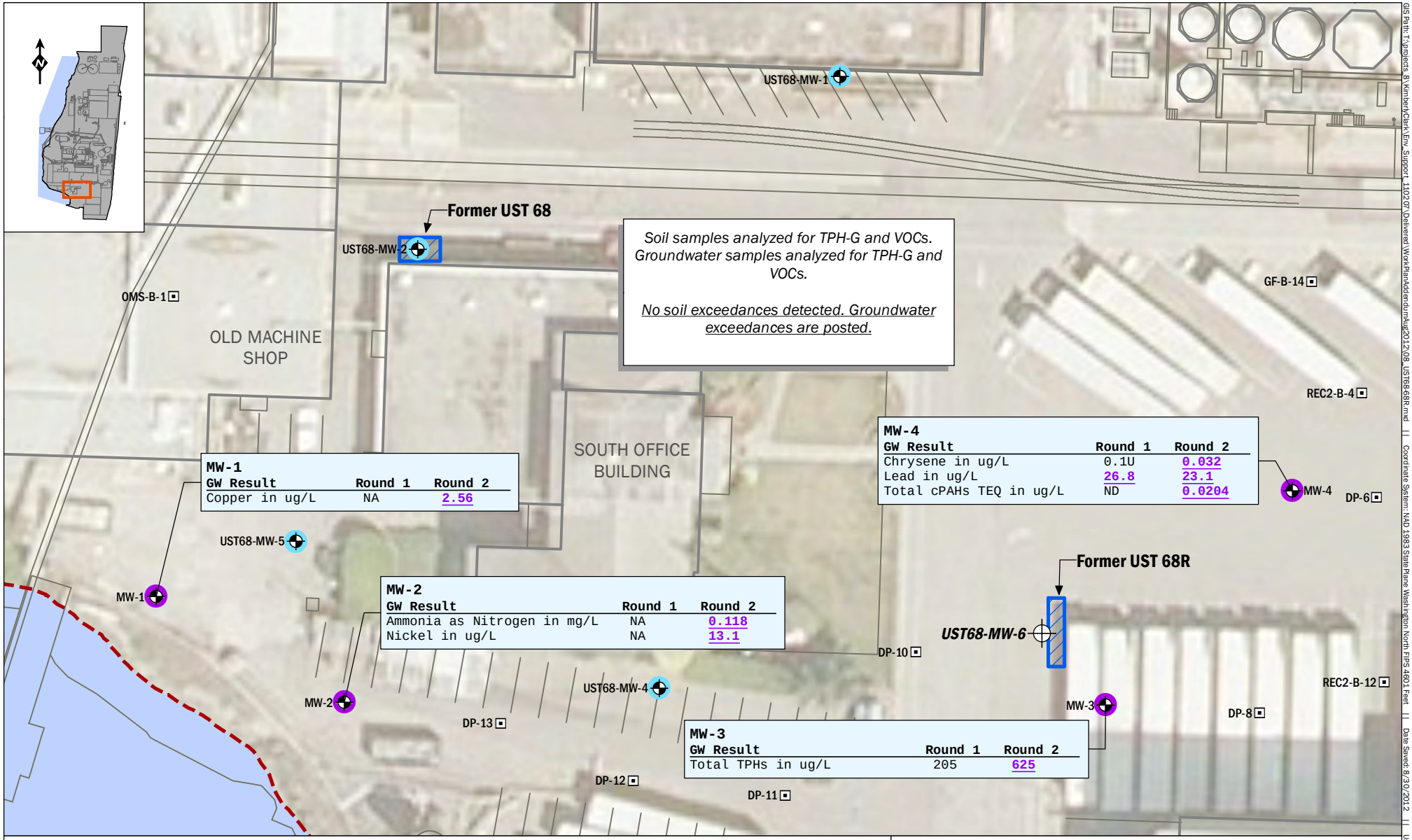
–"NA" = Not Analyzed

REC 7 (East Waterway Shoreline) Groundwater Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 7
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\07_ShorelineWells_GW_Exceeds.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/23/2012 || User: hlovelace || Print Date: 8/23/2012



Soil Boring
Monitoring Well
Proposed Monitoring Well
Locations with Groundwater Exceedance
Locations with No Groundwater Exceedance
Upland Area Boundary

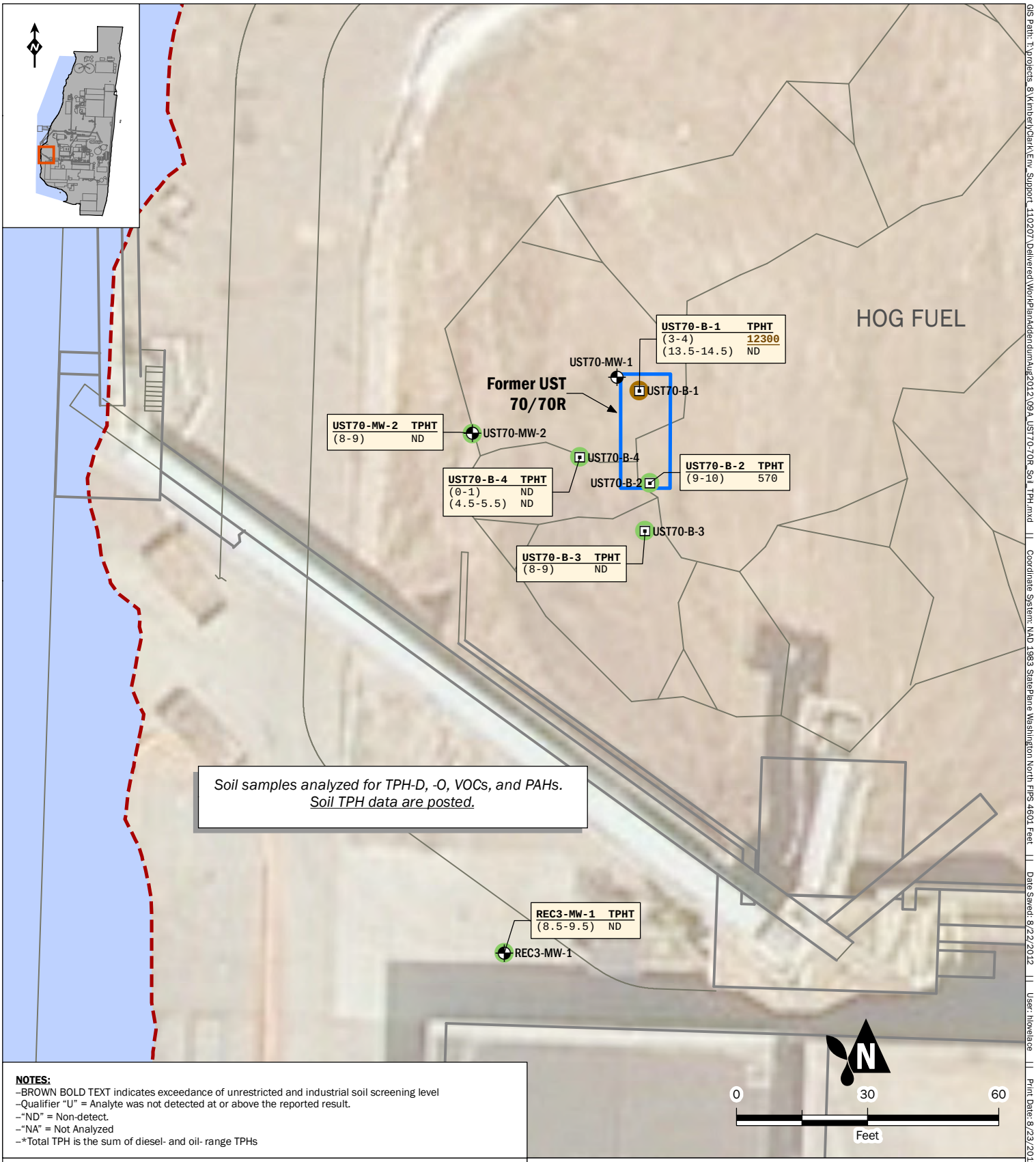
NOTES:
--BOLD, PURPLE, UNDERLINED TEXT indicates exceedance of site groundwater screening level
--"NA" = Not Analyzed
--Total TPH is the sum of diesel- and oil- range TPHs

0 40 80
Feet

UST 68, 68R Soil and Groundwater Data and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 8
	PROJECT NO. 110207	REV BY: ---	



NOTES:
–BROWN BOLD TEXT indicates exceedance of unrestricted and industrial soil screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Locations with No Exceedance
- Upland Area Boundary

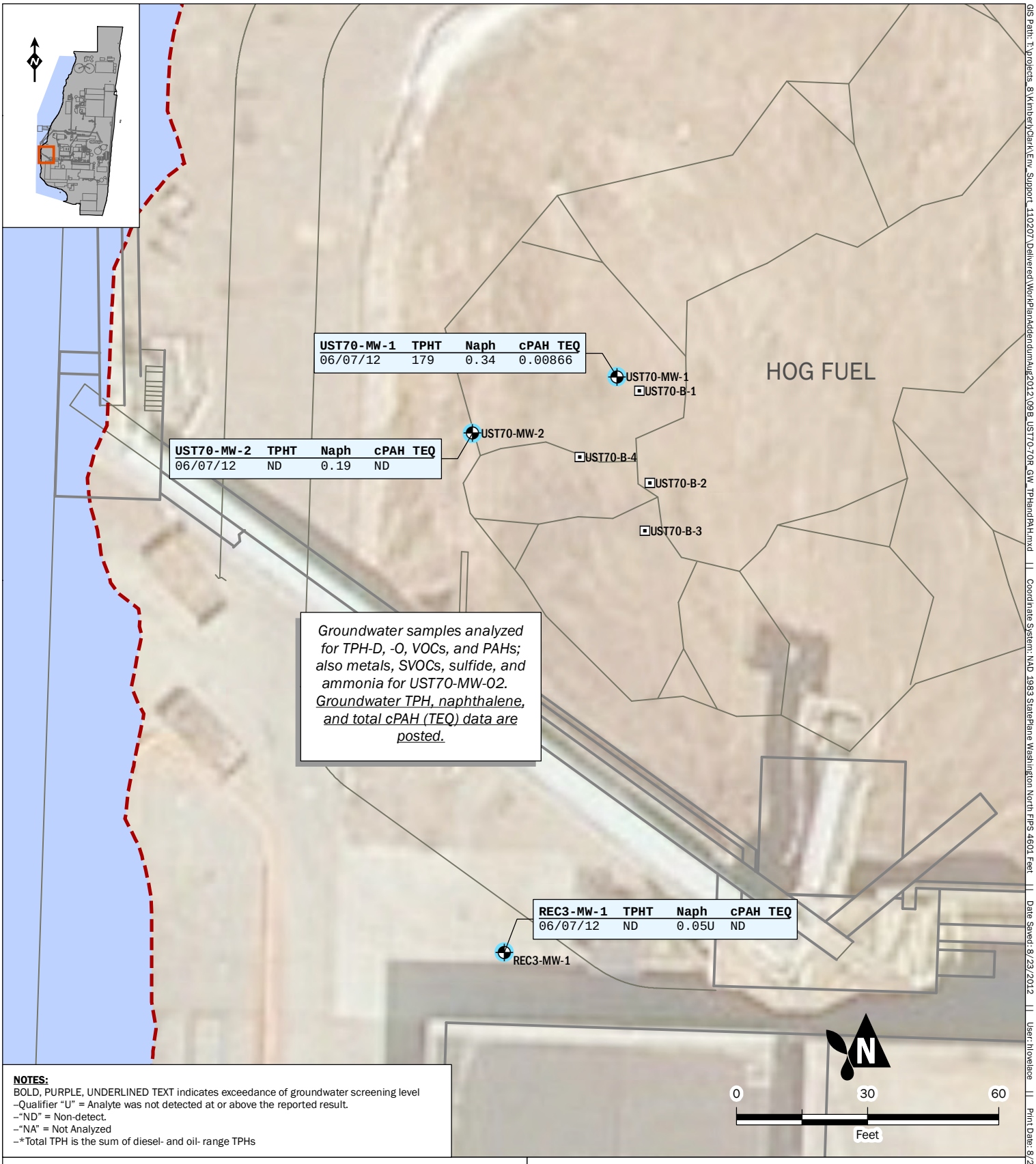
Exploration ID → UST70-B-1 TPHT
Sample Depth Interval → (3-4) 12300, (13.5-14.5) ND
Total TPH in Soil (in mg/kg)*

UST 70, 70R Soil TPH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

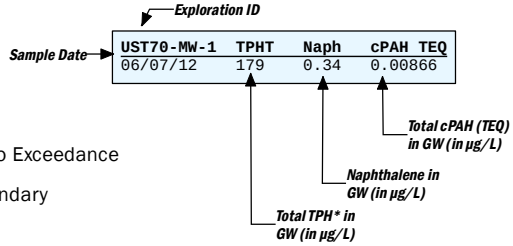
Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 9A
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\KimberlyClark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\09A_UST70-70R_Soil_TPH.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/22/2012 || User: hlovelace || Print Date: 8/23/2012



NOTES:
BOLD, PURPLE, UNDERLINED TEXT indicates exceedance of groundwater screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

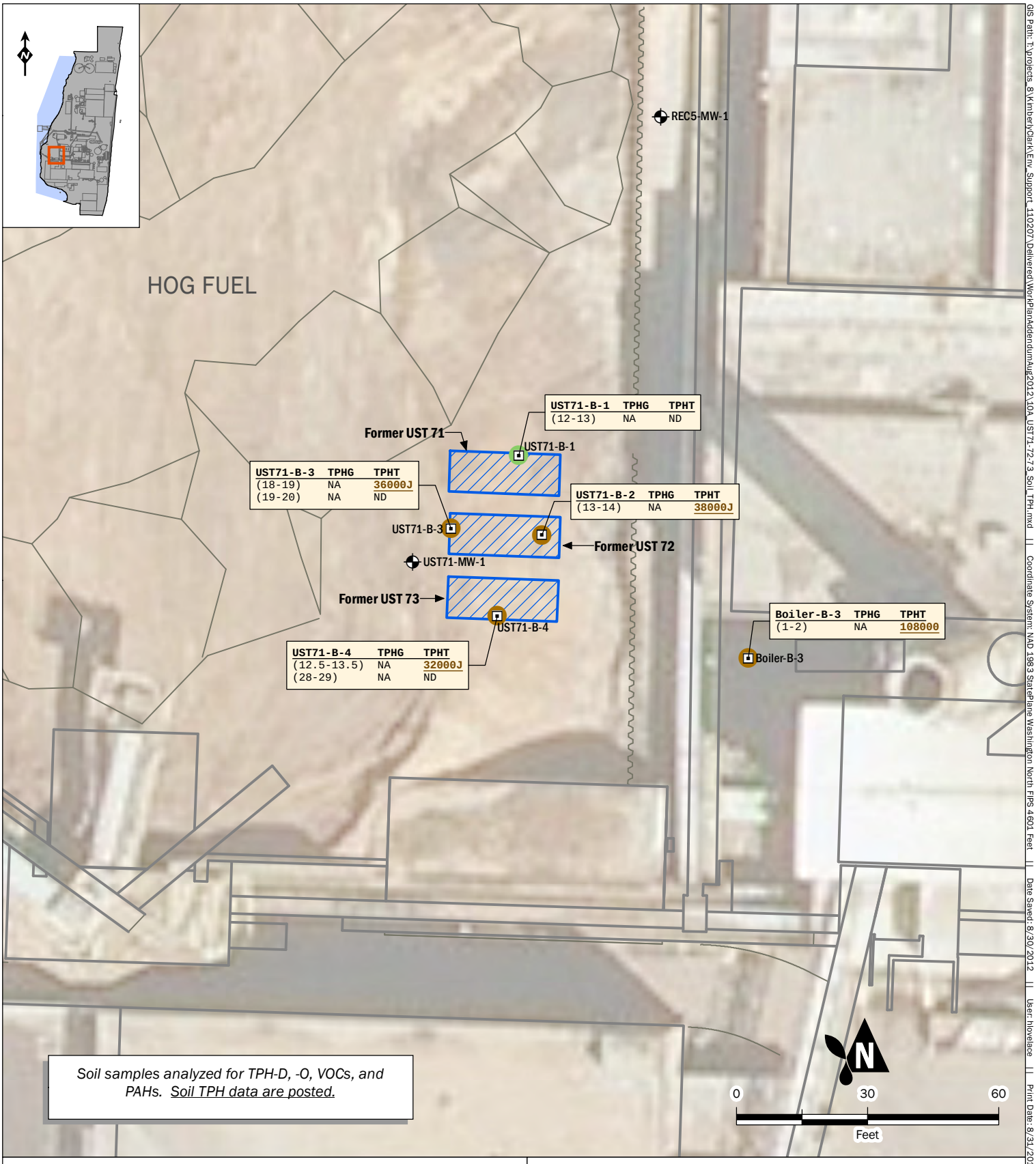
- Soil Boring
- Monitoring Well
- Locations with No Exceedance
- Upland Area Boundary



UST 70, 70R Groundwater TPH and PAH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 9B
	PROJECT NO. 110207	REV BY: ---	



- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Locations with No Exceedance

Exploration ID → UST71-B-3 TPHG TPHT
Sample Depth Interval → (18-19) NA 36000J; (19-20) NA ND
Gasoline-Range TPH in Soil (in mg/kg)
Total TPH in Soil (in mg/kg)*

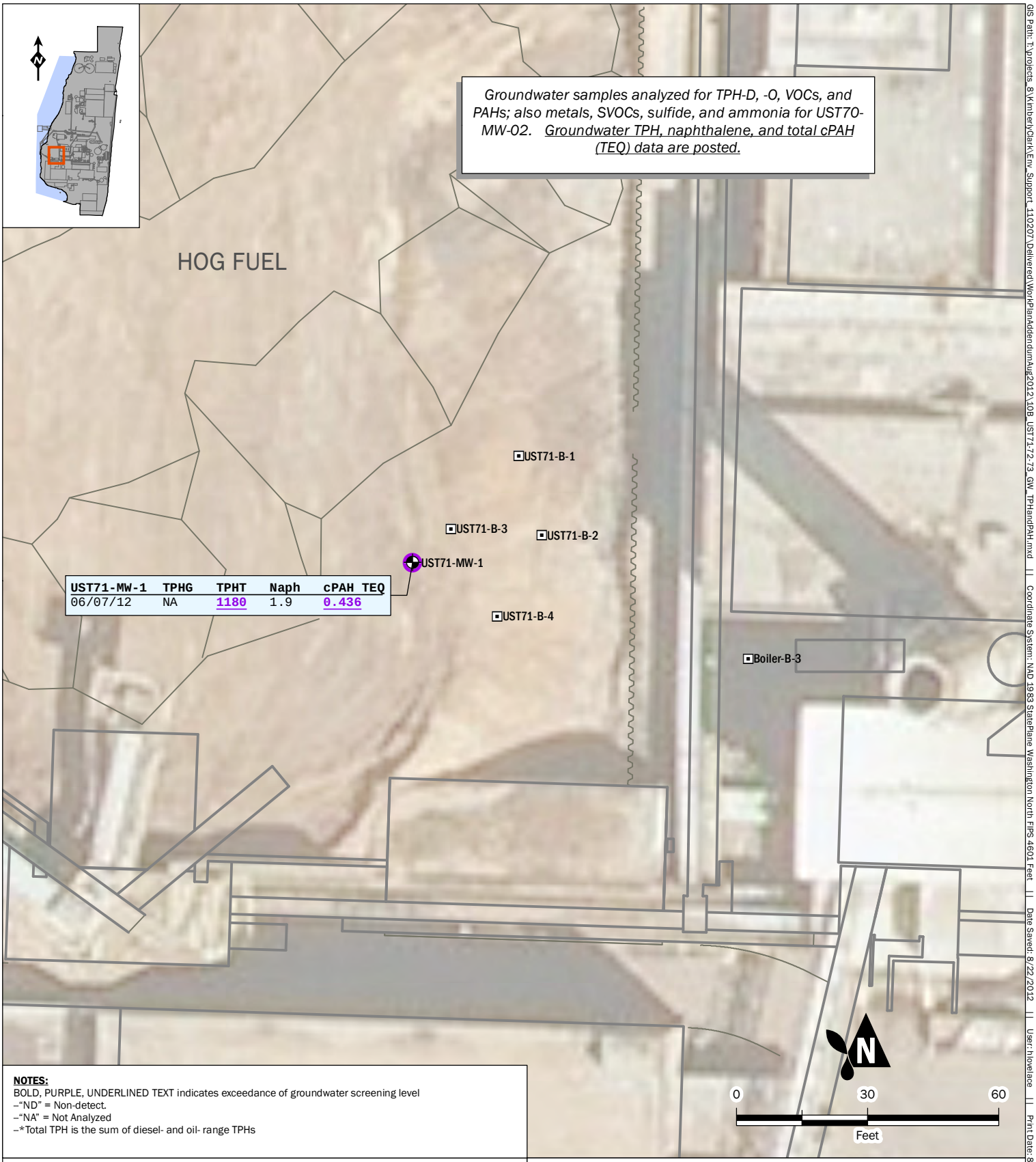
NOTES:
--BROWN BOLD, UNDERLINED TEXT indicates exceedance of unrestricted and industrial soil screening level
--Qualifier "J" = The reported result is an estimate
--"ND" = Non-detect
--"NA" = Not Analyzed
--*Total TPH is the sum of diesel- and oil- range TPHs

USTs 71, 72, 73 Soil TPH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 10A
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\10A_UST71-72-73_Soil_TPH.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/30/2012 || User: hlovelace || Print Date: 8/31/2012



NOTES:
BOLD, PURPLE, UNDERLINED TEXT indicates exceedance of groundwater screening level
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

Exploration ID

UST71-MW-1	TPHG	TPHT	Naph	cPAH TEQ
Sample Date → 06/07/12	NA	1180	1.9	0.436

- Total cPAH (TEQ) in GW (in µg/L)
- Naphthalene in GW (in µg/L)
- Total TPH* in GW (in µg/L)
- Gasoline-Range TPH in GW (in µg/L)

- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Upland Area Boundary

USTs 71, 72, 73 Groundwater TPH and PAH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 10B
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\10B_UST71-72-73_GW_TPHandPAH.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/22/2012 || User: hlovelace || Print Date: 8/23/2012

NOTES:
–BROWN BOLD TEXT indicates exceedance of unrestricted and industrial soil screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Locations with No Exceedance
- Proposed Soil Boring
- Upland Area Boundary
- Approximate Location of 1998 Soil Boring

Exploration ID	Sample Depth Interval	TPHG	TPHT
NRP-B-7	(9-10)	120	1540
	(19-20)	2U	ND

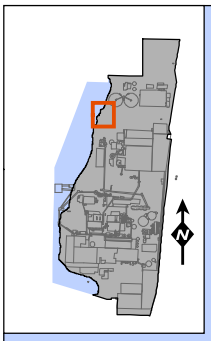
Gasoline-Range TPH in Soil (in mg/kg)

Total TPH* in Soil (in mg/kg)

Naval Reserve Parcel USTs Area Soil Data and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 11A
	PROJECT NO. 110207	REV BY: ---	



Groundwater samples analyzed for TPH-D, -O, VOCs, and PAHs; also metals, SVOCs, sulfide, and ammonia for UST70-MW-02. Groundwater TPH, naphthalene, and total cPAH (TEQ) data are posted.

NRP-MW-3	TPHG	TPHT	Naph	cPAH TEQ
06/05/12	100U	ND	0.05U	0.00851

NRP-MW-3

NRP-B-1

MW-5

MW-5	TPHG	TPHT	Naph	cPAH TEQ
02/17/12	100U	ND	0.1U	ND
06/05/12	100U	ND	0.05U	ND

NRP-MW-2	TPHG	TPHT	Naph	cPAH TEQ
06/05/12	100U	ND	0.05U	ND

NRP-MW-2

NRP-B-5

NRP-B-6

Approx. Final Limits of USTs Excavation

Tank #2

Tank #1

NRP-B-8

NRP-B-4

NRP-B-7

NRP-MW-1	TPHG	TPHT	Naph	cPAH TEQ
06/08/12	100	ND	0.05U	ND

NRP-MW-1

NRP-B-2

N

0 30 60

Feet

NOTES:
BOLD, PURPLE TEXT indicates exceedance of groundwater screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

Soil Boring

Monitoring Well

Locations with No Exceedance

Upland Area Boundary

Exploration ID

Sample Date

MW-5	TPHG	TPHT	Naph	cPAH TEQ
02/17/12	100U	ND	0.1U	ND
06/05/12	100U	ND	0.05U	ND

Total cPAH (TEQ) in GW (in µg/L)

Naphthalene in GW (in µg/L)

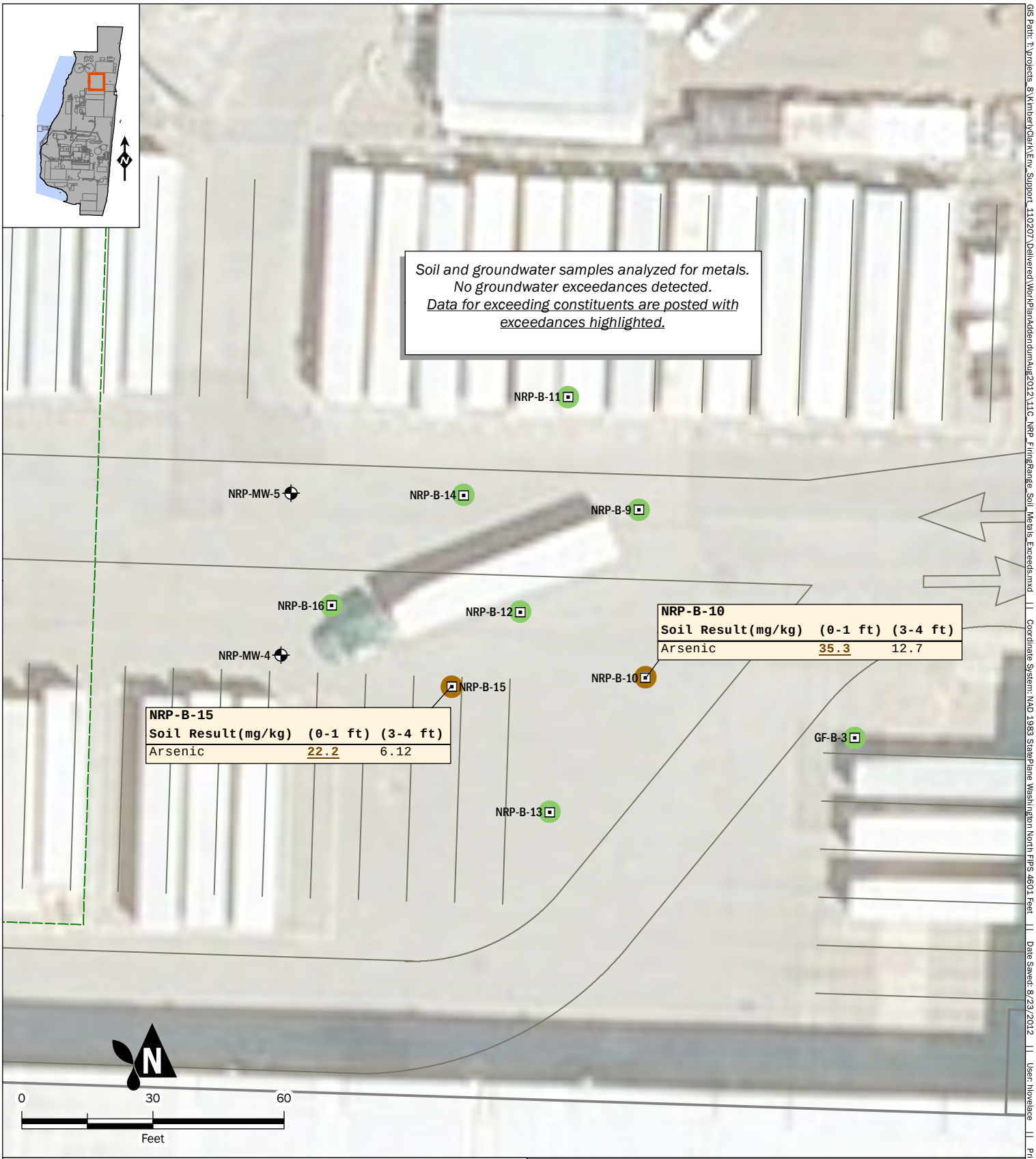
Total TPH in GW (in µg/L)*

Gasoline-Range TPH in GW (in µg/L)

Naval Reserve Parcel USTs Area Groundwater Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 11B
	PROJECT NO. 110207	REV BY: ---	



Soil Boring

Monitoring Well

Loctions with Metals Exceedance

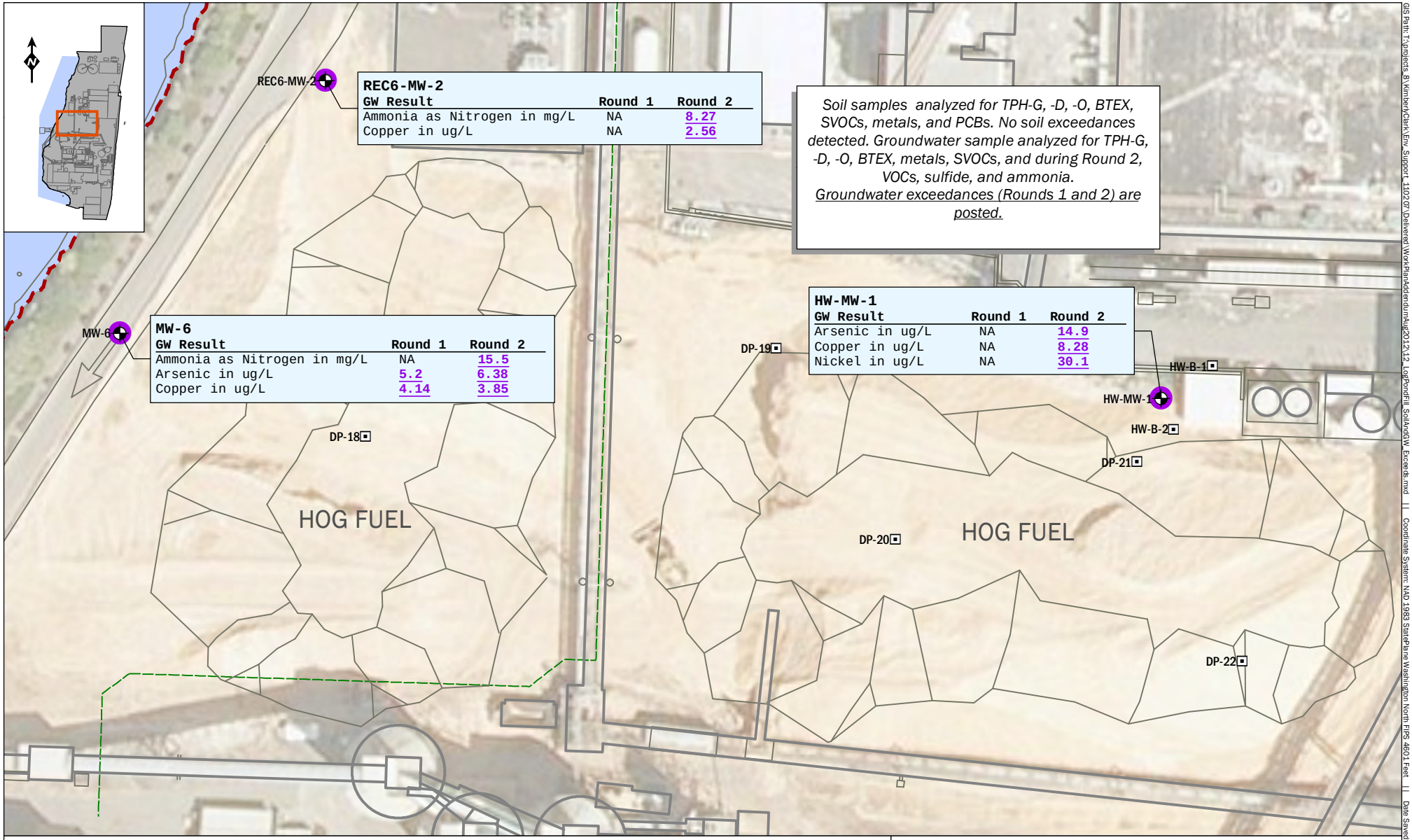
Loctions with No Metals Exceedance

NOTES:
–BOLD, BROWN UNDERLINED TEXT indicates exceedance of unrestricted soil screening level

Naval Reserve Parcel Firing Range Area Soil Metals Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 11C
	PROJECT NO. 110207	REV BY: ---	



Soil Boring
Monitoring Well
Locations with Groundwater Exceedance
Upland Area Boundary

NOTES:
--BOLD, PURPLE UNDERLINED TEXT indicates exceedance of groundwater screening level
--"ND" = Non-detect.
--"NA" = Not Analyzed
--*Total TPH is the sum of diesel- and oil- range TPHs

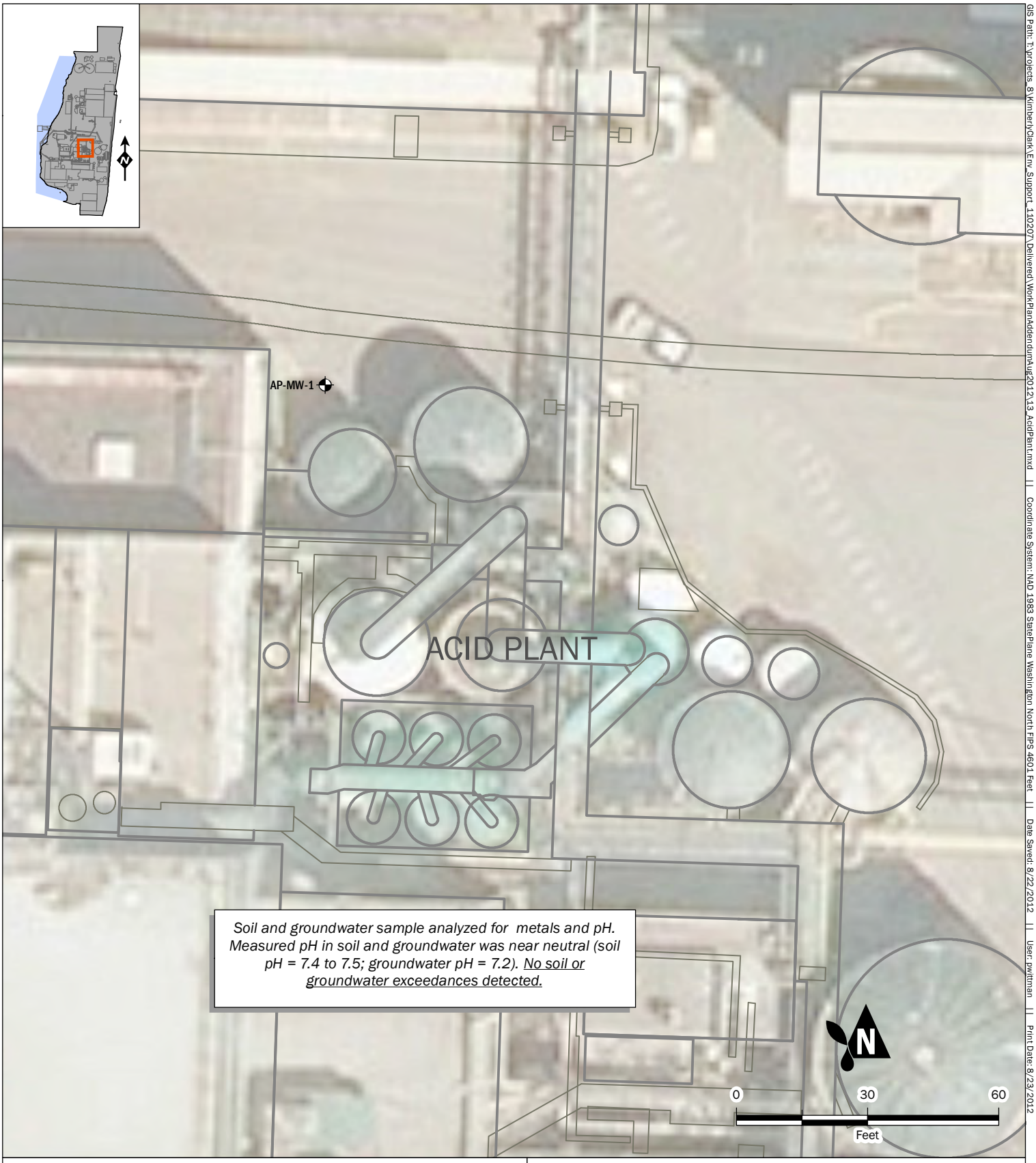
0 60 120
Feet

Log Pond Fill Soil and Groundwater Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 12
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly-Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\12_LogPondFill_SoilAndGW_Exceeds.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/22/2012 || User: hlovelace || Print Date: 8/23/2012

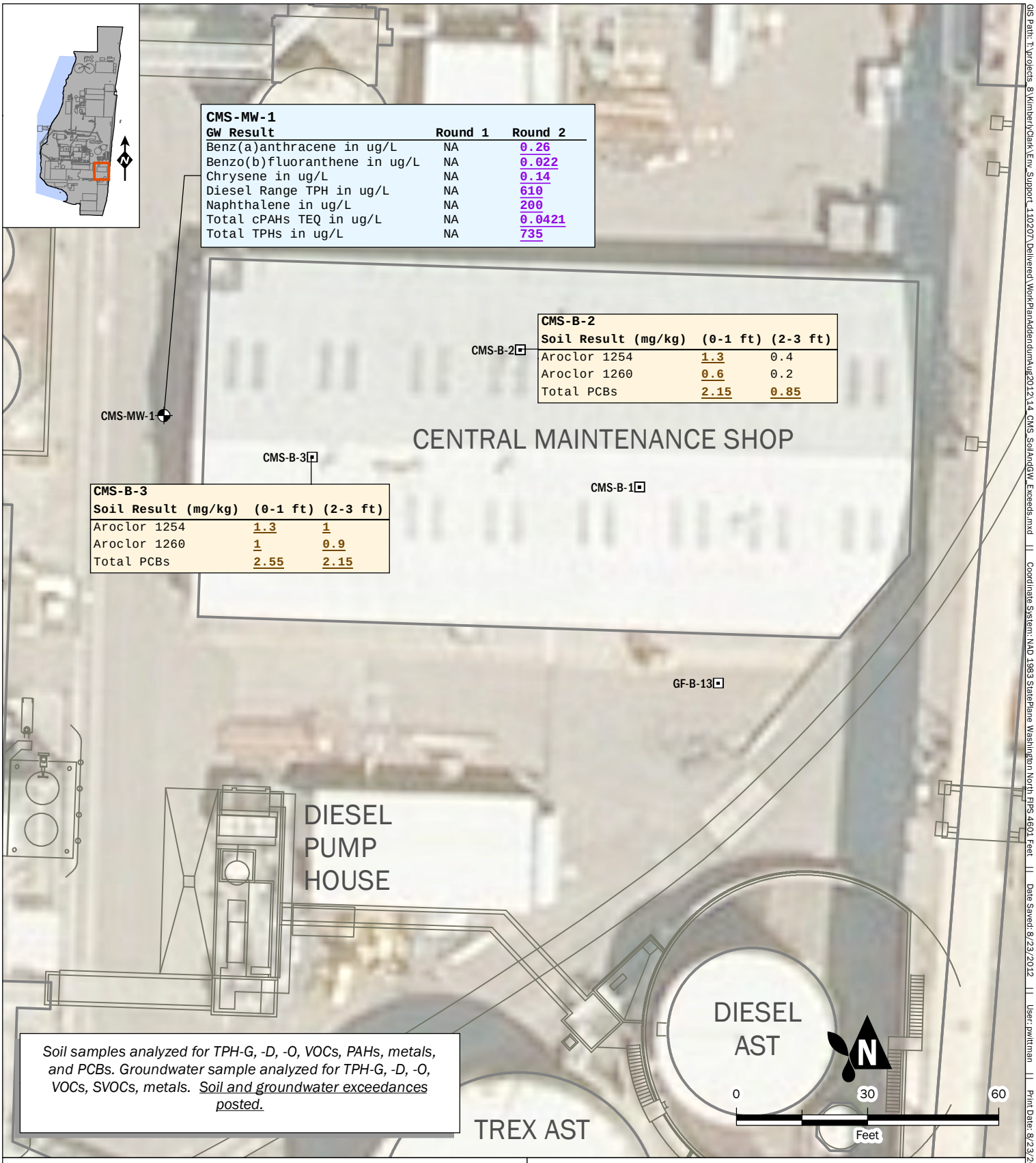


Monitoring Well

Acid Plant Soil and Groundwater Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 13
	PROJECT NO. 110207	REV BY: ---	



Soil samples analyzed for TPH-G, -D, -O, VOCs, PAHs, metals, and PCBs. Groundwater sample analyzed for TPH-G, -D, -O, VOCs, SVOCs, metals. Soil and groundwater exceedances posted.

Soil Boring

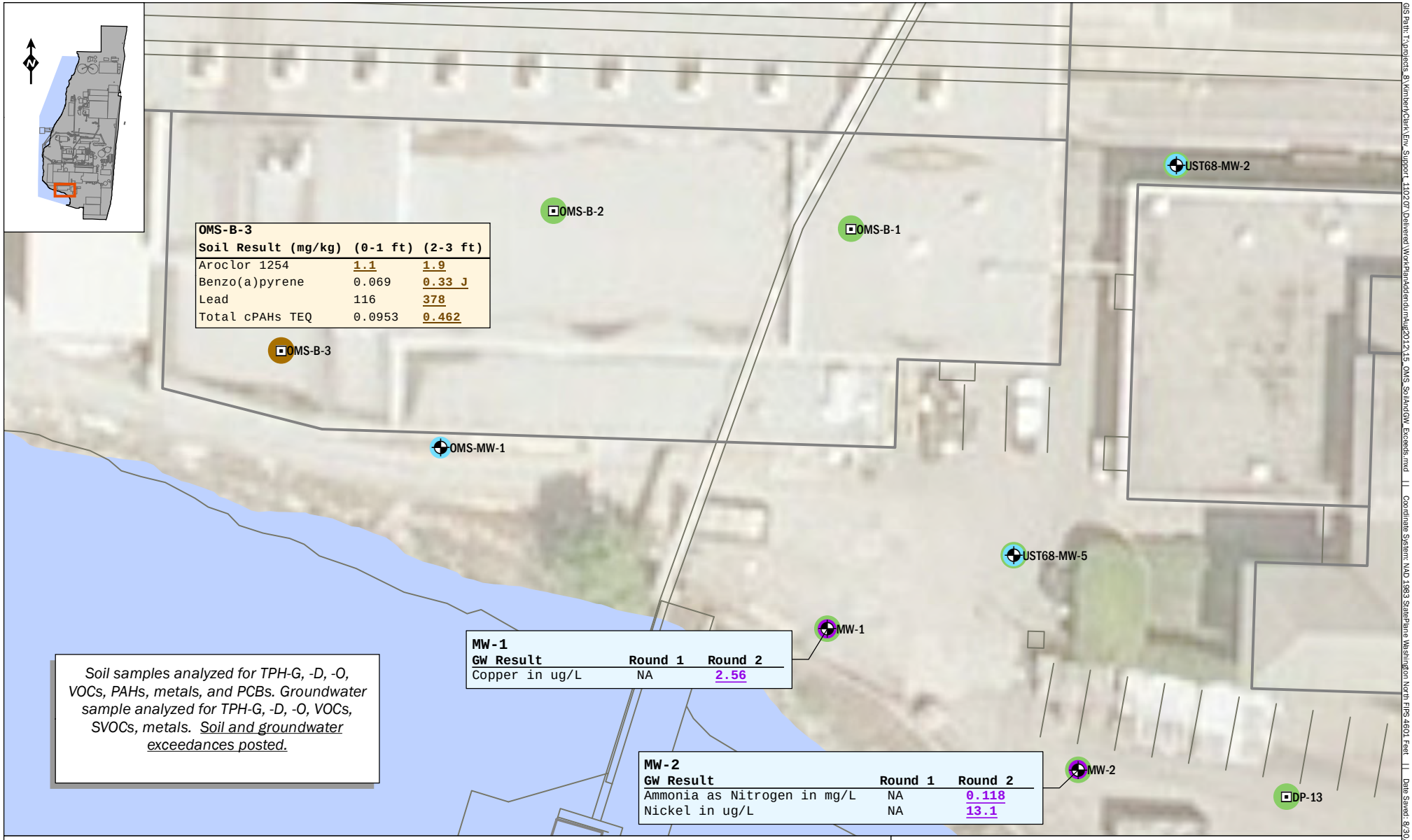
Monitoring Well

NOTES:
–BOLD, PURPLE TEXT indicates exceedance of groundwater screening level
–BOLD, BROWN TEXT indicates exceedance of unrestricted soil screening level
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

Central Maintenance Shop
Soil and Groundwater Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 14
	PROJECT NO. 110207	REV BY: ---	



Soil Boring
Monitoring Well
Locations with Groundwater Exceedance
Locations with No Groundwater Exceedance
Locations with Soil Exceedance
Locations with No Soil Exceedance

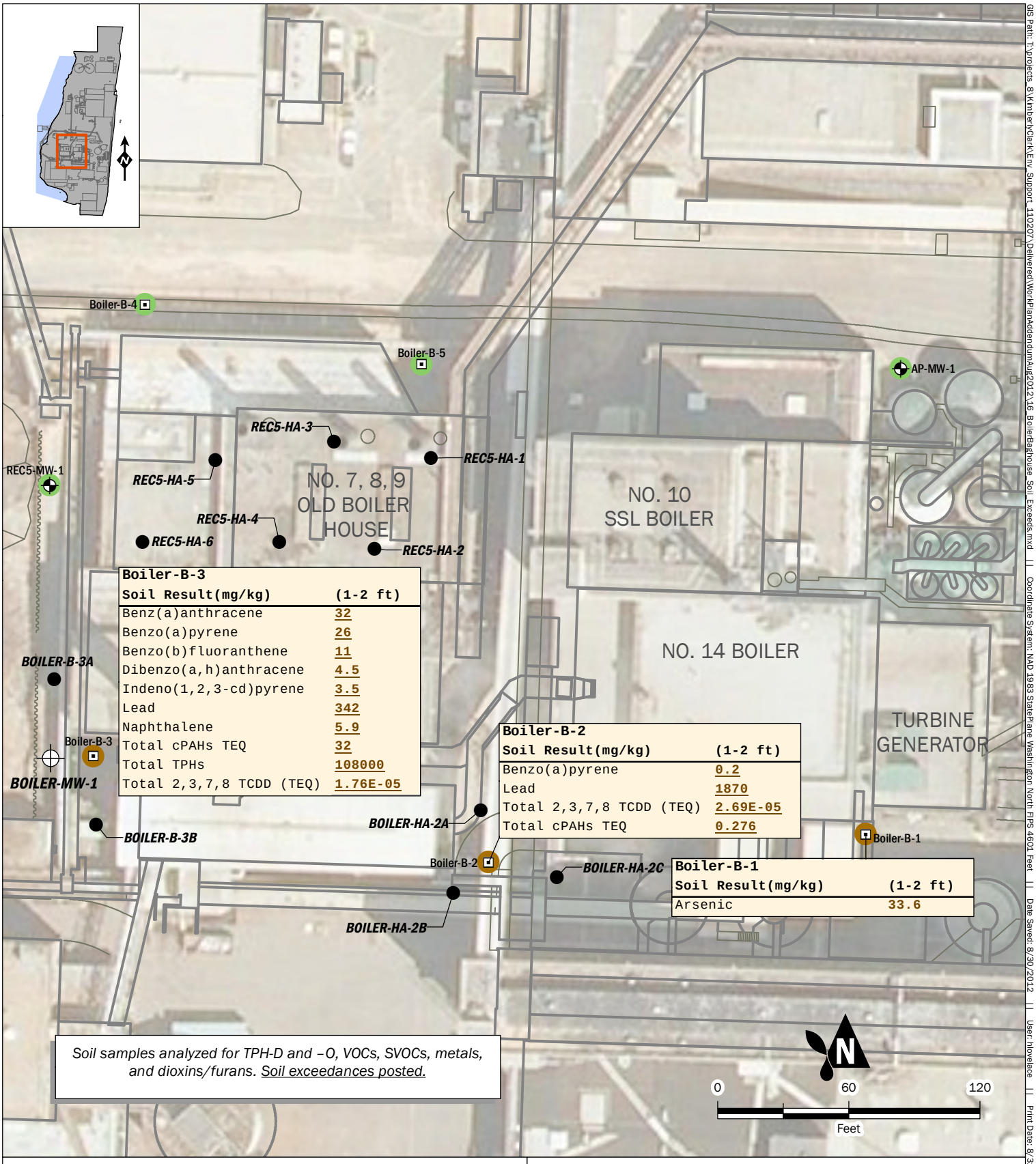
0 30 60
Feet

NOTES:
–BOLD, PURPLE UNDERLINED TEXT indicates exceedance of groundwater screening level
–BOLD, BROWN UNDERLINED TEXT indicates exceedance of unrestricted soil screening level
–Qualifier "J" = The reported result is an estimate
–"NA" = Not Analyzed

Old Machine Shop Soil and Groundwater Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 15
	PROJECT NO. 110207	REV BY: ---	



Boiler-B-3	
Soil Result(mg/kg)	**(1-2 ft)**
Benz(a)anthracene	32
Benzo(a)pyrene	26
Benzo(b)fluoranthene	11
Dibenzo(a,h)anthracene	4.5
Indeno(1,2,3-cd)pyrene	3.5
Lead	342
Naphthalene	5.9
Total cPAHs TEQ	32
Total TPHs	108000
Total 2,3,7,8 TCDD (TEQ)	1.76E-05

Boiler-B-2	
Soil Result(mg/kg)	**(1-2 ft)**
Benzo(a)pyrene	0.2
Lead	1870
Total 2,3,7,8 TCDD (TEQ)	2.69E-05
Total cPAHs TEQ	0.276

Boiler-B-1	
Soil Result(mg/kg)	**(1-2 ft)**
Arsenic	33.6

Soil samples analyzed for TPH-D and –O, VOCs, SVOCs, metals, and dioxins/furans. Soil exceedances posted.

- Soil Boring
- Monitoring Well
- Locations with Soil Exceedance
- Locations with No Soil Exceedance
- Proposed Monitoring Well
- Proposed Soil Boring

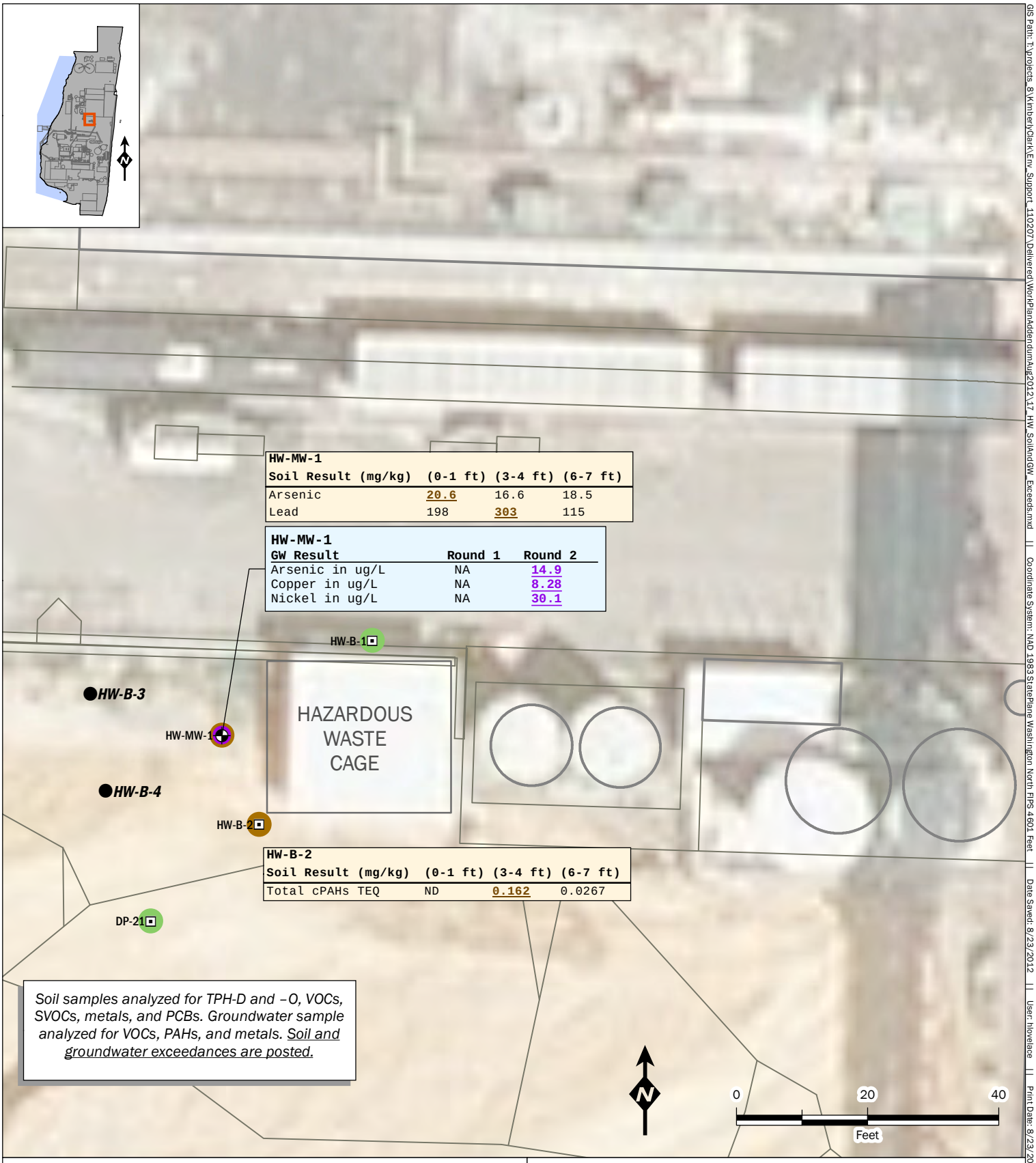
NOTES:
–BOLD, BROWN TEXT indicates exceedance of unrestricted soil screening level
–*Total TPH is the sum of diesel- and oil- range TPHs

Boiler/Baghouse Area Soil Exceedances and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 16
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\KimberlyClark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\16_BoilerBaghouse_Soil_Exceeds.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/30/2012 || User: hlovelace || Print Date: 8/31/2012



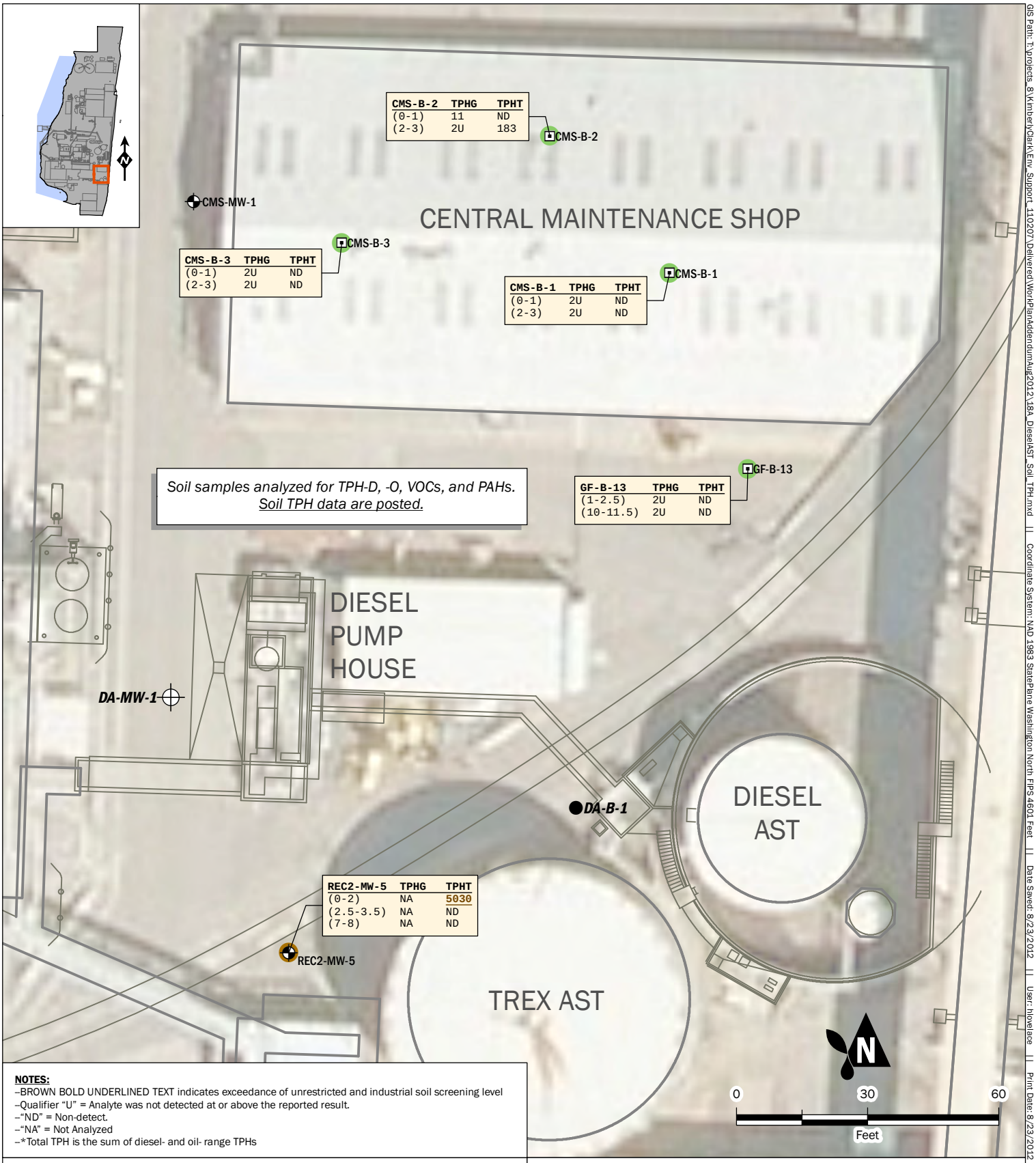
- Soil Boring
- Monitoring Well
- Proposed Soil Borings
- Locations with Groundwater Exceedance
- Locations with Soil Exceedance
- Locations with No Soil Exceedance

NOTES:
–BOLD, PURPLE UNDERLINED TEXT indicates exceedance of groundwater screening level
–BOLD, BROWN UNDERLINED TEXT indicates exceedance of unrestricted soil screening level
–"ND" = Non-detect.
–"NA" = Not Analyzed

Hazardous Waste Cage Soil and Groundwater Exceedances and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area - Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 17
	PROJECT NO. 110207	REV BY: ---	



NOTES:
–BROWN BOLD UNDERLINED TEXT indicates exceedance of unrestricted and industrial soil screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

- Soil Boring
- Monitoring Well
- Locations with Exceedance
- Locations with No Exceedance
- Proposed Monitoring Well
- Proposed Soil Boring

Exploration ID

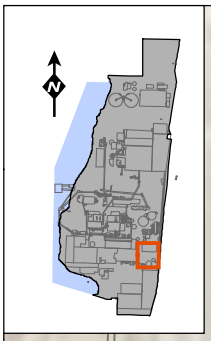
REC2-MW-5	TPHG	TPHT
(0-2)	NA	5030
(2.5-3.5)	NA	ND
(7-8)	NA	ND

Sample Depth Interval
Gasoline-Range TPH in Soil (in mg/kg)
Total TPH in Soil (in mg/kg)*

Diesel AST Area Soil TPH Data and Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 18A
	PROJECT NO. 110207	REV BY: ---	



CMS-MW-1	TPHG	TPHT	Naph	cPAH TEQ
07/02/12	100U	735	200	0.0421

CMS-MW-1

CMS-B-2

CMS-B-3

CMS-B-1

CENTRAL MAINTENANCE SHOP

GF-B-13

Groundwater samples analyzed for TPH-D, -O, VOCs, and PAHs; also metals, SVOCs, sulfide, and ammonia for UST70-MW-02. Groundwater TPH, naphthalene, and total cPAH (TEQ) data are posted.

DIESEL PUMP HOUSE

DIESEL AST

REC2-MW-5	TPHG	TPHT	Naph	cPAH TEQ
06/08/12	100U	222	0.05U	ND

REC2-MW-5

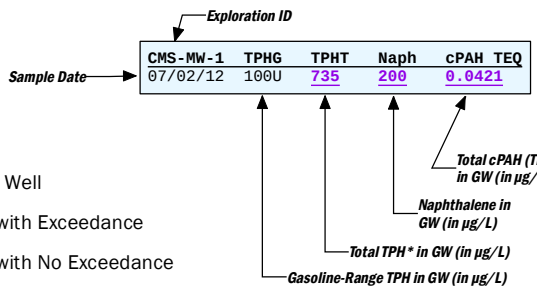
TREX AST

N

0 30 60

Feet

NOTES:
–BOLD, PURPLE TEXT indicates exceedance of unrestricted and industrial soil screening level
–Qualifier "U" = Analyte was not detected at or above the reported result.
–"ND" = Non-detect.
–*Total TPH is the sum of diesel- and oil- range TPHs



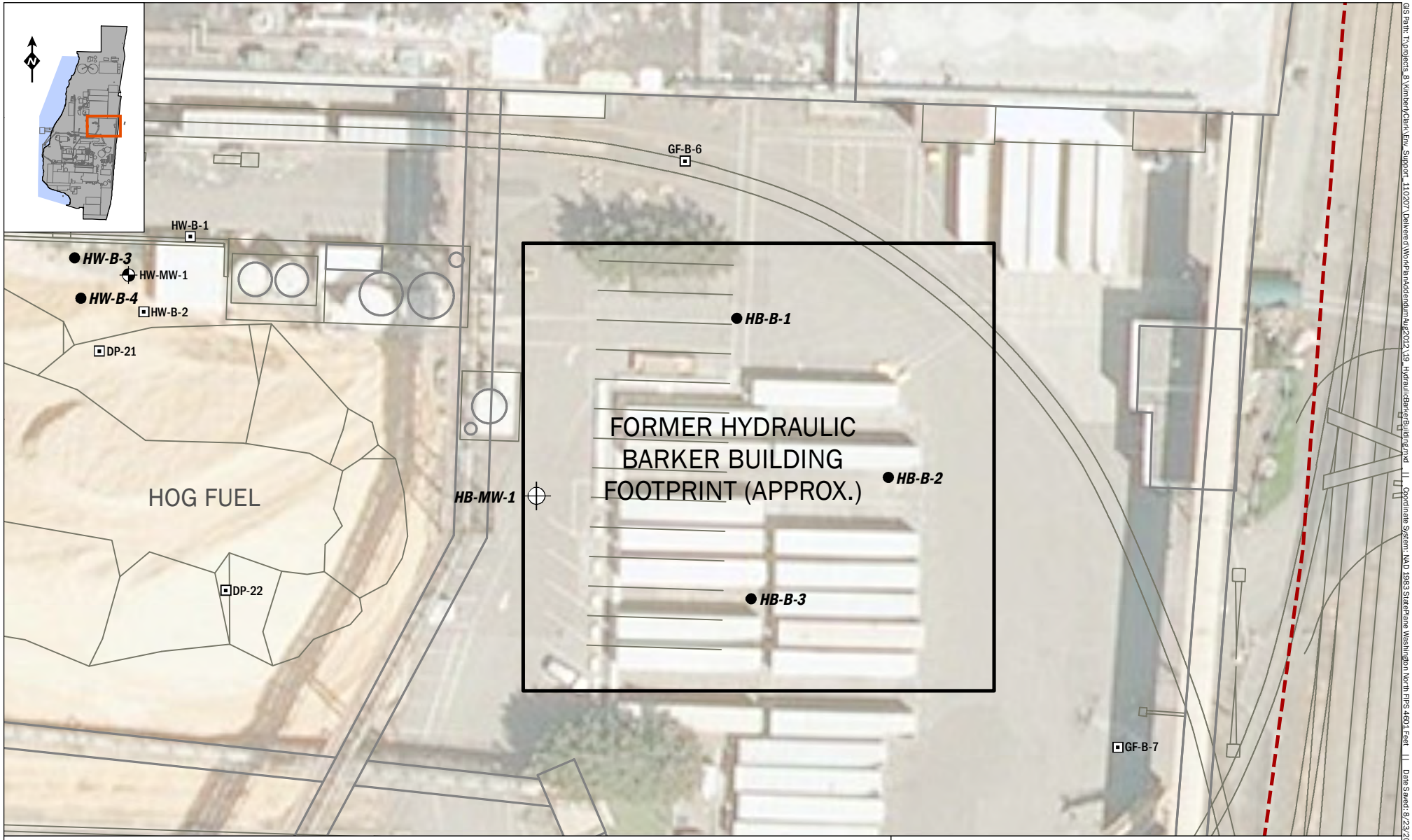
Soil Boring
Monitoring Well
Locations with Exceedance
Locations with No Exceedance

Diesel AST Area Groundwater TPH Data

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 18B
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\18B_DieselAST_GW_TPH.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/22/2012 || User: pwittman || Print Date: 8/23/2012



Soil Boring
Monitoring Well
Proposed Monitoring Well
Proposed Soil Boring
Upland Area Boundary

N

0 50 100
Feet

Hydraulic Barker Building
Proposed Explorations

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 19
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly-Clark\Env_Support_110207\Deliverables\WorkPlanAddendumAug2012\19_HydraulicBarkerBuilding.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/23/2012 || User: pwittman || Print Date: 8/23/2012

Soil Boring
Proposed Soil Boring
Proposed Monitoring Well
Locations with Soil Exceedance
Locations with No Soil Exceedance
Upland Area Boundary

NOTES:
–BOLD, BROWN TEXT indicates exceedance of unrestricted soil screening level
–"ND" = Non-detect.
–"NA" = Not Analyzed
–*Total TPH is the sum of diesel- and oil- range TPHs

General Fill Soil Exceedances

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: SJG / PPW	FIGURE NO. 20
	PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendumAug2012\20_GeneralFill_Soil_Exceeds.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/30/2012 || User: hlovelace || Print Date: 8/31/2012

UG-MW-1
15.74

UG-MW-2
13.50

CMS-MW-1
12.98

REC2-MW-5
14.32

NRP-MW-5
10.66

NRP-MW-4
10.35

REC6-MW-1
9.89

HW-MW-1
10.35

UST29-MW-1
10.55

UST69-MW-1
10.11

AP-MW-1
9.49

MW-4
8.18

MW-3
7.87

UST68-MW-4
7.49

UST68-MW-1
7.63

UST68-MW-2
7.35

UST68-MW-5
6.90

REC7-MW-4
6.63

REC7-MW-1
6.49

NRP-MW-3
5.58

MW-5
4.51

NRP-MW-2
6.59

NRP-MW-1
7.49

REC7-MW-2
8.1

REC6-MW-2
7.62

REC5-MW-1
9.13

MW-2
4.68

MW-1
5.37

MW-6
7.39

UST71-MW-1
7.23

OMS-MW-1
3.27

UST70-MW-1
6.42

REC3-MW-1
5.52

REC7-MW-3
6.13

TM-1

UST70-MW-2
6.71

14 13 12 11 10 9 8 7 6 5

Tidal Elevation
-4.5 feet

Well Name
UG-MW-2
13.53
Water Level Elevation (ft)
Monitoring Well
Tidal Monitoring Station

Water Level Elevation (ft)
8
Groundwater Contour
[dashed where inferred]
Groundwater Flow Direction

Upland Area Boundary

N
0 200 400
Feet

Notes:
- Measurements collected 10:17AM to 11:58AM, 7/3/12 with tide elevations ranging between -4.7 ft and -3.9 ft
- Elevations relative to NAVD88 Vertical Datum

Groundwater Elevation Contours "Low" Tide - 7/3/2012

Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

Aspect CONSULTING

AUG-2012	BY: EAH / DFG	FIGURE NO. 21
PROJECT NO. 110207	REV BY: ---	

GIS Path: T:\projects_8\Kimberly\Clark\Env_Support_110207\Delivered\WorkPlanAddendum\Aug2012\21_GroundwaterContour_LowTide.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 8/22/2012 || User: pwittman || Print Date: 8/23/2012

UG-MW-1
15.75

UG-MW-2
13.55

REC2-MW-5
14.14

CMS-MW-1
12.97

NRP-MW-4
10.35

NRP-MW-5
10.71

HW-MW-1
11.71

REC6-MW-1
NM

UST29-MW-1
NM

MW-4
8.86

AP-MW-1
9.55

MW-3
8.18

REC7-MW-1
6.47

UST69-MW-1
11.29

UST68-MW-1
7.91

NRP-MW-1
7.84

UST68-MW-4
7.8

UST68-MW-2
7.41

MW-2
8.13

REC7-MW-4
4.01

NRP-MW-3
7.37

REC7-MW-2
8.47

REC6-MW-2
7.84

UST68-MW-5
7.1

MW-1
7.67

MW-5
7.44

NRP-MW-2
7.10

REC5-MW-1
8.41

OMS-MW-1
7.57

MW-6
7.4

UST71-MW-1
7.7

UST70-MW-1
7.52

REC7-MW-3
7.95

REC3-MW-1
6.98

TM-1

UST70-MW-2
6.81

Tidal Elevation
7.6 feet

Well Name
UG-MW-2
13.53
Water Level Elevation (ft)

Monitoring Well

Tidal Monitoring Station

Water Level Elevation (ft)

Groundwater Contour
[dashed where inferred]

Groundwater Flow Direction

Upland Area Boundary

N

0 200 400
Feet

Notes:
- Measurements collected 7:20 AM through 7:59AM, 7/6/12 with tide elevations ranging between 7.5 ft and 8.2 ft
- Elevations relative to NAVD88 Vertical Datum
- NM: Not Measured

Groundwater Elevation Contours
"High" Tide - 7/6/2012

Phase 2 Environmental Site Assessment Work Plan Addendum
Kimberly-Clark Everett Pulp and Paper Mill
Everett, Washington

Aspect CONSULTING	AUG-2012	BY: EAH / DFG	FIGURE NO. 22
	PROJECT NO. 110207	REV BY: HRL	

UG-MW-1
15.75

UG-MW-2
13.53

NRP-MW-5
10.69

NRP-MW-4
10.35

HW-MW-1
11.03

REC6-MW-1
NM

UST29-MW-1
NM

UST69-MW-1
11.01

NRP-MW-1
7.67

REC7-MW-1
6.91

NRP-MW-3
6.48

MW-5
5.98

NRP-MW-2
6.85

REC7-MW-2
8.45

REC6-MW-2
7.73

MW-6
7.49

CMS-MW-1
12.98

REC2-MW-5
14.23

AP-MW-1
9.59

MW-4
8.52

MW-3
8.03

UST68-MW-1
7.86

UST68-MW-4
7.65

UST68-MW-2
7.38

UST68-MW-5
7.23

REC7-MW-4
6.05

MW-2
6.41

MW-1
6.52

OMS-MW-1
5.42

REC5-MW-1
8.61

UST71-MW-1
7.47

UST70-MW-1
6.97

REC3-MW-1
6.25

REC7-MW-3
6.81

TM-1

UST70-MW-2
7.06

Average Tidal Elevation 4.63 feet

15 14 13 12 11 10 9 8 7 6

Well Name
UG-MW-2
72 hour Average Groundwater Elevation shown, calculated using the Serfes (1991) Method with 15 minute pressure transducer measurements.
13.53
Monitoring Well
Average Groundwater Elevation shown, calculated using the arithmetic average of the "Low" and "High" Tide manual water level measurements.
13.53
Tidal Monitoring Station
Water Level Elevation (ft)

Notes:
- NM: Not Measured
- Elevations relative to NAVD88 Vertical Datum

Water Level Elevation (ft)
8
Groundwater Contour [dashed where inferred]
Groundwater Flow Direction
Upland Area Boundary

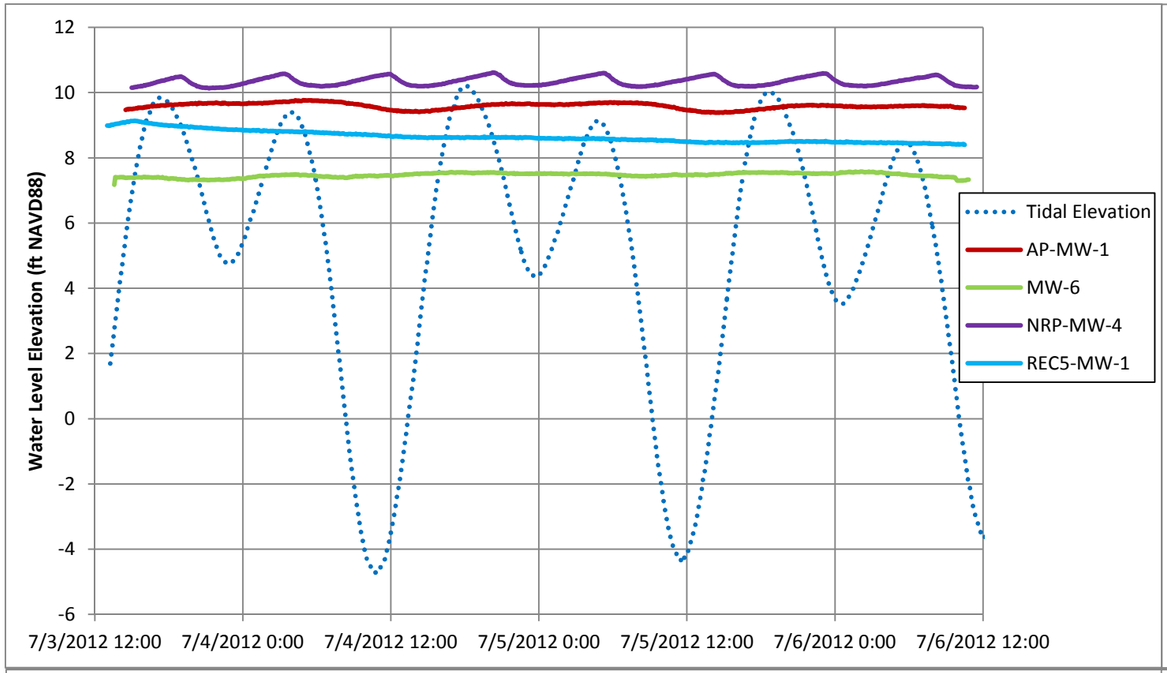
N
0 200 400
Feet

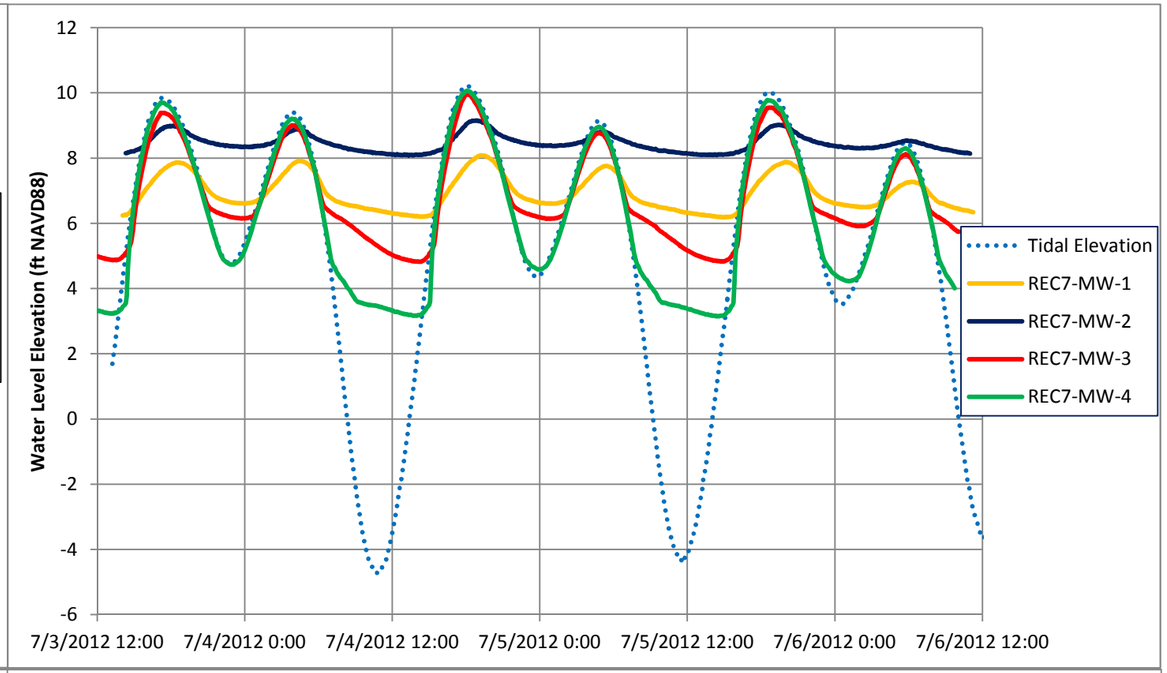
Groundwater Elevation Contours 72-hour Tidal Average

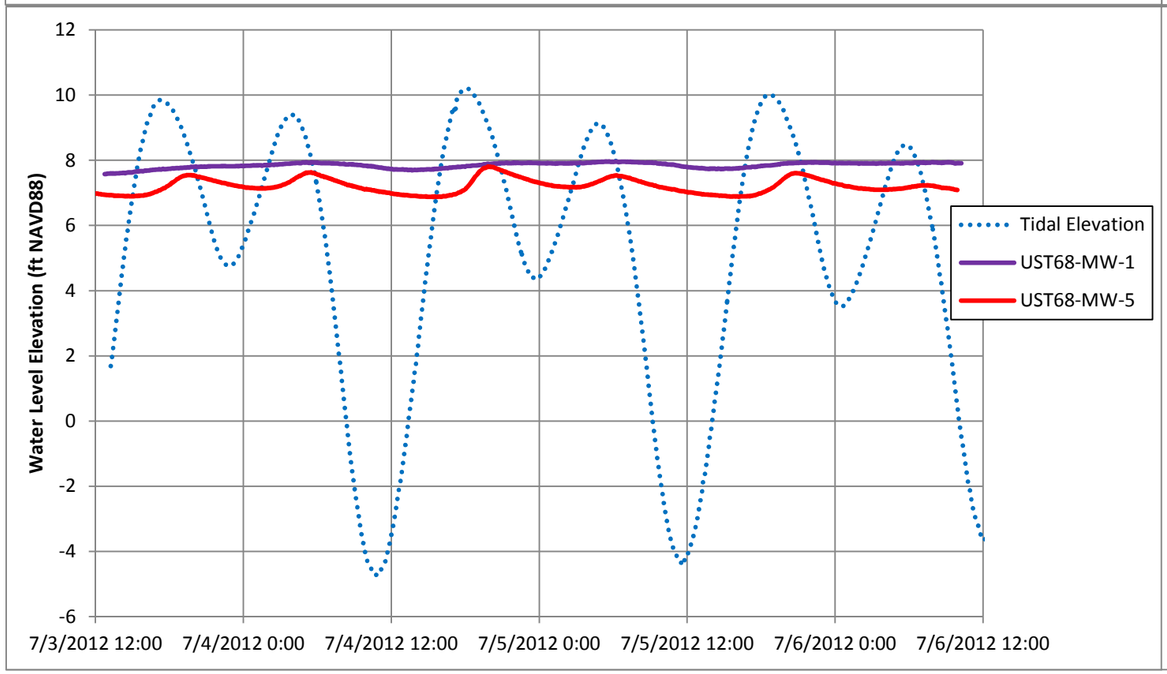
Phase 2 Environmental Site Assessment Work Plan Addendum
K-C Worldwide Site Upland Area
Everett, Washington

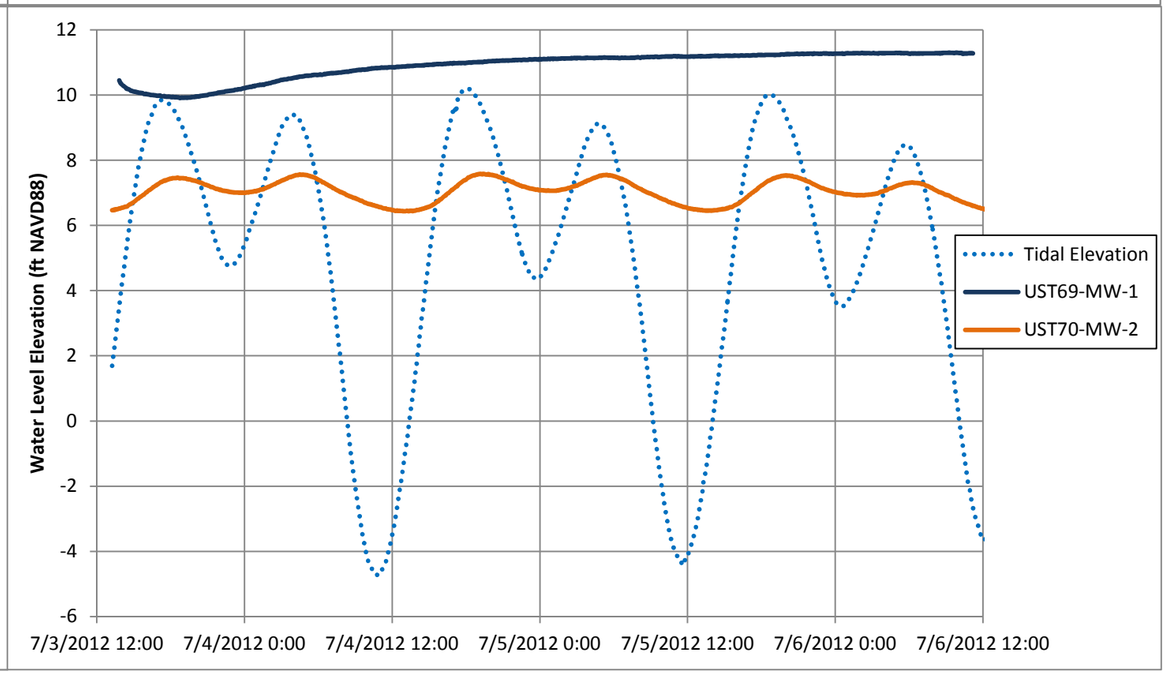
Aspect CONSULTING

AUG-2012	BY: EAH / DFG	FIGURE NO. 23
PROJECT NO. 110207	REV BY: ---	







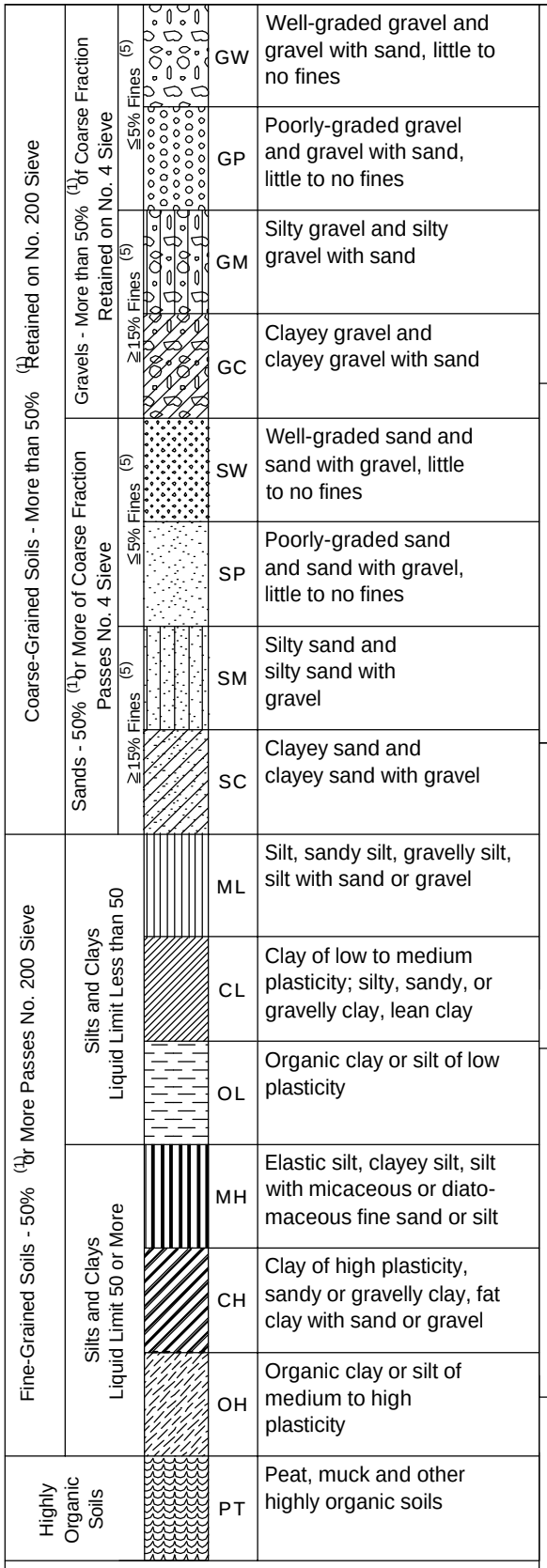


Aspect Consulting
8/22/12
C:\Users\drugh\Desktop\Figure 24 Tidal Study

Figure 24
Tidal Study Groundwater Elevation Data
Kimberly-Clark Worldwide Site Upland Area, Everett, Washington

APPENDIX A

Exploration Logs



Terms Describing Relative Density and Consistency

	Density	SPT (2) blows/foot
Coarse-Grained Soils	Very Loose	0 to 4
	Loose	4 to 10
	Medium Dense	10 to 30
	Dense	30 to 50
	Very Dense	>50
	Consistency	**SPT (2) blows/foot**
Fine-Grained Soils	Very Soft	0 to 2
	Soft	2 to 4
	Medium Stiff	4 to 8
	Stiff	8 to 15
	Very Stiff	15 to 30
	Hard	>30

Test Symbols

FC = Fines Content
G = Grain Size
M = Moisture Content
A = Atterberg Limits
C = Consolidation
DD = Dry Density
K = Permeability
Str = Shear Strength
Env = Environmental
PiD = Photoionization Detector

Component Definitions

Descriptive Term	Size Range and Sieve Number
Boulders	Larger than 12"
Cobbles	3" to 12"
Gravel	3" to No. 4 (4.75 mm)
Coarse Gravel	3" to 3/4"
Fine Gravel	3/4" to No. 4 (4.75 mm)
Sand	No. 4 (4.75 mm) to No. 200 (0.075 mm)
Coarse Sand	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	Smaller than No. 200 (0.075 mm)

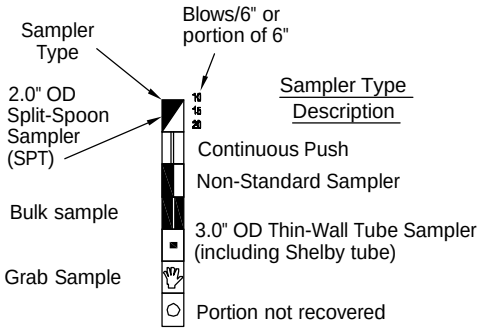
(3) Estimated Percentage

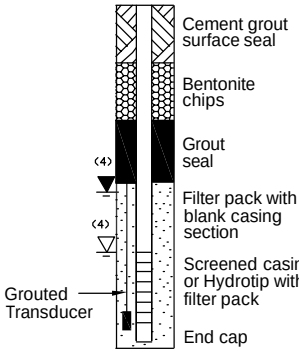
Percentage by Weight	Modifier
<5	Trace
5 to 15	Slightly (sandy, silty, clayey, gravelly)
15 to 30	Sandy, silty, clayey, gravelly)
30 to 49	Very (sandy, silty, clayey, gravelly)

Moisture Content

Dry - Absence of moisture, dusty, dry to the touch
Slightly Moist - Perceptible moisture
Moist - Damp but no visible water
Very Moist - Water visible but not free draining
Wet - Visible free water, usually from below water table

Symbols





(1) Percentage by dry weight
(2) (SPT) Standard Penetration Test (ASTM D-1586)
(3) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)
(4) Depth of groundwater — ATD = At time of drilling; Static water level (date); BGS = below ground surface
(5) Combined USCS symbols used for fines between 5% and 15% as estimated in General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.

Aspect CONSULTING

Exploration Log Key

DATE:
DESIGNED BY:
DRAWN BY:
REVISED BY:
PROJECT NO.
FIGURE NO.
A-1

Q:_ACAD Standards\Standard Details\Exploration Log Key A1.dwg

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	AP-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.45
Depth to Water (ft BGS): 6
Start/Finish Date: 6/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'	CC-1	AP-MW-1-1-2	0			Asphalt Moist, brown, iron-oxide-gray mottled SAND (SP); trace fine gravel, fine sand, scattered organics-seashells	1
2				0				2
3	3/8" Hydrated bentonite chips 2' to 3'			0				3
4	10/20 pre-pack Silica sand filter pack 3' to 14'			0			Moist, dark gray SAND (SP); fine sand	4
5				0			Moist, brown SAND (SP); fine sand	5
6	▼		AP-MW-1-6-7	0				6
7		CC-2		0			Wet, dark gray, silty SAND (SM); fine sand, rapid dilatency, scattered organics-seashells	7
8	2" Diameter PVC pre-packed .001 slot screen 4' to 14'			0			Numerous organics-seashells- 8' to 8.5'	8
9				0			Wet, dark gray SAND (SP); trace gravel, fine to medium sand	9
10				0				10
11				0				11
12		CC-3		0				12
13				0				13
14	Threaded cap Slough			0				14
15				0			Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
○ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 3

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	CMS-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.70
Depth to Water (ft BGS): 3
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1–4	8" Flush-mount monument and thermos cap; Concrete surface seal 0' to 1'; 3/8" Hydrated bentonite chips 1' to 1.5'; 10/20 pre-pack Silica sand filter pack 1.5' to 12.5'	CC-1					No Recovery	1–4
5				0			Wet, dark gray, slightly silty SAND (SP-SM); fine sand	5
6	2" Diameter PVC pre-packed .001 slot screen 2.5' to 12.5'			0				6
7–8		CC-2		0			Wet, dark gray SAND (SP); trace gravel, fine to medium sand	7–8
9				0			Wet, dark gray, silty CLAY (CL)	9
10							Wet, dark gray, slightly gravelly SAND (SP); fine to medium sand, fine gravel	10
11				0				11
12	Threaded cap	CC-3					Wet, dark brown, organic SILT (OL); peat-like	12
13				0.4				13
14	Slough			0.1			Wet, dark brown, sandy organic SILT (OL); fine to medium sand	14
15							Bottom of boring at 15' BGS	15
16–29								16–29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 4

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 1
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-1-2.5-3	0			Asphalt	
				0			Wet, brown to gray, slightly sandy GRAVEL (GP); trace silt, fine angular gravel	
				0			Wet, dark brown, slightly silty, gravelly SAND (SP); fine to medium sand	
				0				
				0.7			Gray sand, trace gravel	
5		CC-2	DP-2-5.5-6	0.7				5
				0				
				0				
				0				
				0				
10		CC-3		0			Slightly gravelly, scattered shell fragments	10
				0				
				0			Wet, gray, sandy GRAVEL (GP); fine to medium gravel, scattered shell fragments	
				0			Wet, gray SAND (SP); trace gravel and silt, fine to medium sand	
				0				
				0				
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 5

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 1
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-2-1.5-2.5	0			Concrete to 9"	
				0			Wet brown to gray, slightly sandy to sandy GRAVEL (GP); trace silt,fine to medium subangular gravel	
				0			Wet, brown SAND (SP); trace gravel, fine to medium sand	
			DP-2-4-5	9.5			Wet, black, gravelly, silty SAND (SP); occasional wood	
5		CC-2		57.7			Wet, gray SAND (SP); fine to medium sand	5
			DP-2-6-7	2.9				
				0.4				
				0.4				
				0.4			Wet, brown, SILT (ML)	
10		CC-3		0.4			Wet, gray, slightly gravelly SAND (SP); fine to medium sand	10
				0.4				
				0.4				
				0.4				
				0.4				
15				0.5			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 6

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-3-1-2	0			Concrete to 9"	
				0.1			Wet, brown, sandy GRAVEL (GP); trace silt, fine angular gravel	
				0			Wet, brown to gray, silty, gravelly SAND (SP); fine to medium sand	
			DP-3-4-5				Product from 3.5' to 5'	
							Wood at 4', strong petroleum-like odor	
5		CC-2		28.7				5
			DP-3-6-7				Black SILT (ML)	
				1.5			Wet, gray SAND (SP); trace gravel, medium sand	
				1.5				
				1.5				
10		CC-3		1.5			Wet, dark gray, silty SAND (SM); fine sand	10
				0.2			Wet, gray SAND (SP); trace gravel, fine to medium sand	
				0.2				
				0.2				
				0.2				
15				0.2			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 7

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 1.5
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-4-1-2	0			Asphalt	
				0			Wet, brown, slightly sandy GRAVEL (GP); subangular fine-medium gravel	
				0			Wet, gray, SAND (SP); fine to medium sand	
				0			Wet, gray, silty SAND (SM); fine sand, brick fragment	
				0			Wet, gray SAND (SP); fine to medium sand	
5		CC-2		0				5
				0				
				0				
				0				
			DP-4-9-10	0			Very silty SAND (SP); numerous organics	
10		CC-3		0				10
				0				
				0				
				0			Fibrous brown PEAT (PT); hydrogen sulfide odor	
				0			Sand lens	
				0			Fibrous brown PEAT (PT); hydrogen sulfide odor	
				0				
15				0			Silty SAND (SM); fine sand, numerous organics	15
							Bottom of boring at 15' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 8

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-05	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-5-1.5-2.5	0.2			Concrete to 9"	
				0.2			Wet, brown, sandy GRAVEL (GP); angular fine to medium gravel	
				0.3			Wet, gray, slightly sandy SILT (ML); trace gravel	
				0.2			Wet, gray SAND (SP); fine to medium sand	
5		CC-2	DP-5-7-8	65.9			Wet, gray, slightly sandy SILT (ML)	5
				65.9				
				65.9				
				65.9				
				65.9				
10		CC-3		0			Wet, gray SAND (SP); fine to medium sand	10
				0				
				0				
			DP-5-13-14	0			Wet, brown, organic SILT (OL)	
				0			Wet, gray SAND (SP); fine to medium sand	
				0			Wet, gray SAND (SW); fine to coarse sand	
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 9

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-06	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 3
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch			0.2			Moist, gray, slightly silty, sandy GRAVEL (GP); fine to medium subrounded gravel	
							Moist, brown, SILT (ML)	
		CC-1		0.2			Wet, brown, sandy GRAVEL (GP); fine to medium subrounded gravel	
			DP-6-3-4	0.2			Wet, dark gray, slightly sandy SILT (ML)	
5				0.2				5
				0				
		CC-2	DP-6-7-8	0				
				0				
				0			Wet, dark gray SAND (SP); trace gravel, fine to medium sand	
10				0				10
				0				
		CC-3		0				
				0				
				0			4" organic SILT (OL)	
				0			Wet, gray, silty SAND (SP); fine to medium sand, numerous organics	
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 10

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-08	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1		0			Asphalt	
				0			Moist, brown, silty, sandy GRAVEL (GM); fine angular gravel	
				0				
			DP-8-4-5	0			Very moist, brown SAND (SP); trace gravel, fine sand	
5				1.8			Wet, dark gray, very silty SAND (SM); fine sand, scattered shell fragments	5
			DP-8-6-7	1.8				
		CC-2		1.8			3" bed organic SILT (OL)	
				1.8			Wet, dark gray SAND (SP); fine to medium sand	
				1.8				
10				35.8				10
				35.8				
			DP-8-12-13	35.8				
		CC-3		35.8				
				35.8				
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 11

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-10	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 4
Start/Finish Date: 2/14/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
							Concrete	
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-10-3-4	0.2			Moist, brown to gray, silty SAND (SM); fine sand, alternating bands of gray and brown	
				0.2				
				0.2				
				0.2			Moist to wet, dark gray SAND (SP); fine to medium sand with numerous shell fragments	
5		CC-2		0.8				5
				0.8				
				0.8				
				0.8				
			DP-10-9-10	0.8				
10		CC-3		0.8			2" silt interbed	10
				21.4			Wet, dark gray, silty SAND (SM); fine sand	
				21.4			Wet, dark gray SAND (SP); fine to medium sand	
				21.4			Wet, dark gray, silty SAND (SM); fine sand	
				21.4				
				21.4			Wet, dark gray SAND (SP); fine to medium sand	
15				21.4			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 12

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-11	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 4
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-11-4-5	0			Asphalt	
				0			Very moist, brown to dark brown, gravelly SAND (SP); fine to medium sand	
				0				
				0				
				0				
5				0			Wet, dark gray SILT (ML); scattered organics (wood), slight H2S odor	5
		CC-2	DP-11-8.5-9.5	0				
				0				
				0				
10				0				10
		CC-3		0				
				2.7			Wet, black, SAND (SP); fine to medium sand, scattered shell fragments, H2S odor	
				2.7				
			DP-11-14-15	2.7				
15				10.0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 13

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-12	1 of 1

Project Name: Kimberly Clark-Everett Mill
Ground Surface Elev:
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Depth to Water (ft BGS): 6
Sampling Method: Continuous Core
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
				0			Moist, brown, very silty GRAVEL (GM); trace sand, no odor	
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1		0				
				0			Moist, brown, gravelly SAND (SP); fine to medium sand; debris (burnt/melted plastic, charred brick)	
5				0				5
	▼	CC-2	DP-12-6.5-7.5	0			Wet, brown, very silty GRAVEL (GM); fine to medium subangular gravel; debris (burnt/melted plastic, charred brick) to 8'	
				0				
				0				
			DP-12-9-10	0				
							Wet, black, SAND (SP); fine to medium sand	
10				0			Wet, dark brown to dark gray, very sandy GRAVEL (GP); trace black silt, fine to medium subrounded gravel	10
		CC-3		0				
				0				
				0				
				0			H2S odor at 14'	
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 14

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-13	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5.5
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips, concrete seal at ground surface, and asphalt cold-patch	CC-1	DP-13-3-4	0			Asphalt	
				0			Very moist, brown, very gravelly SAND (SP); fine to medium sand	
				0				
				0			Very moist, dark brown, slightly gravelly SILT (ML)	
5				0				5
		CC-2		0			Wet, brown, very silty GRAVEL (GM); fine to medium subangular gravel; debris (firebrick, ceramic, wood)	
				0				
				0				
				0				
10				0				10
		CC-3	DP-13-12-13	0			Wet, dark gray to black, sandy SILT (ML), no odor	
				0				
				0				
				0				
				0			Wet, black SAND (SP); trace silt, fine to medium sand	
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 15

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-18	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
				0			Wood chips	
	Backfilled with medium bentonite chips	CC-1	DP-18-2.5-3.5	0			Moist, gray, sandy, gravelly SILT (ML); fine to medium subrounded gravel	
5				0				5
		CC-2		0				
10				0			Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 16

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-19	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	DP-19-2.5-3.5	0			Wood chips	
				0				
				0			Moist, gray, slightly gravelly, very silty SAND (SM); fine sand	
5				0				5
		CC-2		0			Wet, gray to blue-gray, slightly gravelly SILT (ML); slight H2S odor	
				0				
				0				
10		CC-3		0				10
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 17

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-20	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	DP-20-2.5-3.5	0			Wood chips	
				0				
				0			Moist, gray, gravelly, silty SAND (SM); fine sand	
				0			Moist, dark gray, gravelly, sandy SILT (ML)	
5				0			Concrete rubble 5' to 6'	5
		CC-2		0			Wet, black, gravelly, silty SAND (SM); Wood chips at 7', fine sand	
				0				
				0				
				0			Wet, brown, sandy SILT (ML)	
10							Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 18

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-21	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7.5
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
				0			Wood chips	
	Backfilled with medium bentonite chips	CC-1		0				
				0				
			DP-21-4-5	0			Moist, dark gray, gravelly, silty SAND (SM)	
5				0				5
		CC-2		0			Concrete rubble from 6' to 7'	
				0			Very moist to wet, dark gray, gravelly, sandy SILT (ML)	
				0				
				0				
10							Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 19

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	DP-22	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS):
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	DP-22-3-4	0			Wood chips	
				0				
				0			Moist, gray, very silty SAND (SM); fine sand	
				0			Moist, dark gray, sandy, gravelly SILT (ML)	
5				0				5
		CC-2		0			Concrete rubble 6' to 7'	
				0			Moist, gray, sandy SILT (ML); silt is mottled brown and gray	
				0				
				0				
10							Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 20

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-01	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-1-1-2.5				Loose, slightly moist, gray, slightly silty, gravelly SAND (SW-SM); well-graded fine to coarse sand, poorly graded fine gravel	
							Loose, moist to wet, gray, silty SAND (SM); poorly graded fine sand	
		S-1		0				
5	Backfilled with medium bentonite chips	S-2		0			Wood chips.	5
		S-3		0			Becomes loose	
10		S-4		0			Becomes very loose	10
15		S-5		0			Very loose, wet, gray, SAND (SW); trace silt, well-graded fine to coarse sand, sampler driven with just weight of hammer	15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 21

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-01	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0				
25		S-7		0			Becomes medium dense	25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 21

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-02	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev
Depth to Water (ft BGS) 2
Start/Finish Date 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							ft	
	▼	S-1	GF-B-2-2.5-4	0				
5	Backfilled with medium bentonite chips	S-2		0			Medium dense, wet, black, silty SAND (SM); poorly graded fine sand	5
		S-3		0			Becomes wood chips	
10		S-4		0				10
15		S-5		0			Very loose, wet, gray, SAND (SP); trace silt, poorly graded fine to medium sand	15

Sampler Type:
- ◯ No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 22

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-02	2 of 2

Project Name: Kimberly Clark-Everett Mill
Ground Surface Elev:
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Depth to Water (ft BGS): 2
Sampling Method: Splitspoon
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0				
							Medium dense, wet, gray, SAND (SW); trace silt	
25		S-7		0				25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- ◯ No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 22

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-03	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-3-1-2.5				Loose, slightly moist. gray, gravelly to very gravelly SAND (SW); gravel rounded, size up to 2"	
		S-1		0			Loose, moist, gray, clean fine SAND (SP)	
5		S-2		0			Very loose, wet, gray, silty SAND (SM); trace gravel, trace wood	5
	Backfilled with medium bentonite chips	S-3	GF-B-3-7.5-9	0			Loose, wet, gray, slightly silty SAND (SP); poorly graded fine sand	
10		S-4	GF-B-3-11-12.5	0			Becomes wood chips	10
							Very loose, wet, gray, gravelly SAND (SP/SW); trace wood chips, grades from SP to SW	
15		S-5		0			Very loose, wet, gray SAND (SM); poorly graded medium coarse sand, no fine sand	15
							Very loose, wet, gray SAND (SM); poorly graded medium coarse sand, no fine sand	

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 23

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-03	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0				
25		S-7		0			Becomes dense	25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 23

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-04	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Slightly moist, gray-brown, slightly silty, slightly sandy GRAVEL (GW)	
		S-1	GF-B-4-2.5-4	0			Loose, moist, gray, silty SAND (SM); poorly graded fine sand	
5	Backfilled with medium bentonite chips	S-2		0			Becomes very loose	5
		S-3	GF-B-4-7.5-9	0			Loose, moist, gray, silty SAND (SM); poorly graded fine sand with wood chips present	
10		S-4		0			Very loose, wet, gray SAND (SP); trace silt, poorly graded fine to medium sand	10
15		S-5		0			Soft, wet, gray, sandy SILT (ML) interbedded with wet, gray, silty SAND (SM); poorly graded fine to medium sand	15
							Very loose, wet, gray, silty SAND (SM); poorly graded fine to medium sand with wood chips present	

Sampler Type:
- No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 24

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-04	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0				
							Loose, wet, gray, SAND (SW); trace silt, well-graded fine to coarse sand	
25		S-7		0				25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 24

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-05	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-5-1-2.5				Loose, slightly moist, gray, gravelly SAND (SW)	
		S-1		0			Loose, very moist, slightly gravelly SAND (SP); trace coarse sand, poorly graded fine to medium sand	
5		S-2		0			Very loose, wet, slightly gravelly SAND (SP); poorly graded medium sand	5
	Backfilled with medium bentonite chips	S-3	GF-B-5-7.5-9	0			Shells present, organic or slight hydrocarbon odor	
10		S-4		0			Trace silt, shells present	10
							Becomes coarser grained, poorly graded medium to coarse sand, shells present	
15		S-5		0			Very loose silty SAND (SP); poorly graded fine sand, wood detritus present	15
							Medium dense, wet, gray SAND (SP); trace organics, poorly graded medium sand, organic or slight hydrocarbon odor	

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 25

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-05	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0				
							Becomes coarse grained SAND (SP); trace shells, poorly graded medium to coarse sand, slight marine/ organic/ slight hydrocarbon odor	
25		S-7		0				25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 25

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-06	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-6-1-2.5				Loose, slightly moist, gray, slightly musty odor, very gravelly SAND (SW)	
		S-1		0			Medium dense, slightly moist, gray SAND (SP); trace silt, poorly graded fine to medium sand	
5		S-2		0			Loose, wet, medium to course SAND (SP)	5
	Backfilled with medium bentonite chips						Loose, slightly moist, gray SAND (SP); trace silt, poorly graded medium to coarse sand	
		S-3	GF-B-6-7.5-9	0			Becomes medium dense	
10		S-4		0			Becomes wood chips	10
							Loose, wet, gravelly SAND (SP); trace fine grains	
15		S-5		0			Medium dense, wet, gray, gravelly SAND (SP); trace woody debris, poorly graded medium to coarse grains, fine to medium rounded gravel	15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 26

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-06	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6	GF-B-6-20-21.5	0				
25		S-7		0				25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: GL
Approved by: SJG
Figure No. A- 26

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-07	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/21/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-7-1-2.5				Very loose, moist to wet, brown, slightly silty, slightly gravelly SAND (SW-SM); well-graded fine to coarse sand	
		S-1		0				
5	Backfilled with medium bentonite chips	S-2		0			Becomes loose and gray Becomes trace silt	5
		S-3	GF-B-7-7.5-9	0				
10		S-4		0			Becomes woody debris	10
							Soft, wet, gray, sandy SILT (ML); laminae rusty brown organic silt	
15		S-5		0				15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 27

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-07	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/21/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0			Becomes very stiff	
25		S-7		0			Dense, wet, brown, silty SAND (SM); trace gravel, poorly graded fine to medium sand, diamict fabric present	25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 27

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-08	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 10
Start/Finish Date: 5/30/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		CC-1	GF-B-8-1-2.5	0			Moist, gray, gravelly, silty SAND (SM)	
5	Backfilled with medium bentonite chips	CC-2	GF-B-8-7.5-9	0			Moist, brown, SAND (SP); poorly graded medium to coarse sand Becomes poorly graded fine sand with iron staining	5
				0			Very moist, dark gray, very sandy SILT (ML) and very silty SAND (SM)	
10	▼			0			Very moist, brown SAND (SP); poorly graded fine sand Becomes medium grained sand Becomes black Becomes wet, gray, and well-graded fine to coarse sand	10
		CC-3		0			Wet, gray, sandy, GRAVEL (GP); poorly graded fine gravel	
15				0			Wet, gray, slightly gravelly SAND (SP); trace course grains poorly graded fine to medium sand Becomes woody debris	15
		CC-4		0				

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 28

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-08	2 of 2

Project Name: Kimberly Clark-Everett Mill
Ground Surface Elev:
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Depth to Water (ft BGS): 10
Sampling Method: Continuous Core
Start/Finish Date: 5/30/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		CC-4		0			Becomes mostly medium grained	
				0				
				0				
				1.5			Slight hydrogen sulfide odor	
				2.7				
25				0			Bottom of boring at 25' BGS	25
30								30
35								35

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 28

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-09	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
		CC-1	GF-B-9-1-2.5	0			Moist, brown, gravelly, slightly silty SAND (SM); poorly graded fine to medium sand, well-graded fine to coarse gravel, crushed rocks	
				0				
	Backfilled with medium bentonite chips			0				
5				0				5
		CC-2	GF-B-9-7.5-9	0			Wet, brown, slightly gravelly SAND (SP); poorly graded fine to medium sand	
				0				
				0				
				0				
				0			Wet, black, sandy, gravelly SILT (ML)	
10				0			Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 29

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-10	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 6.5
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-10-1-2.5				Concrete	
		S-1		0			Loose, moist, brown-gray, silty SAND (SM); poorly graded fine sand	
5	Backfilled with medium bentonite chips	S-2		0			Medium stiff, moist, brown, sandy SILT (ML)	5
							Loose, moist, gray, silty SAND (SM)	
			GF-B-10-7.5-9				Stiff, wet, brown, sandy SILT (ML)	
		S-3		0			Loose, wet, gray, SAND (SP); trace silt, poorly sorted medium to coarse sand	
10		S-4		0				10
15		S-5		0			Becomes slightly gravelly and medium dense	15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 30

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-10	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 6.5
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0			Becomes very loose, poorly sorted fine to medium sand	
25		S-7		0			Medium dense, wet, gray, silty SAND (SM); trace coarse sand, poorly graded fine to medium sand	25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 30

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-11	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 9.5
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-11-1-2.5				Asphalt	
							Loose, black, silty SAND (SM); poorly graded fine sand, charcoal odor	
		S-1		0				
5	Backfilled with medium bentonite chips	S-2		0				5
		S-3	GF-B-11-7.5-9	0				
10		S-4		0			Loose, wet, dark gray, silty SAND (SM); poorly graded fine to medium sand	10
							Medium dense, wet, gray SAND (SP); trace silt, trace fine sand, poorly graded medium to coarse sand	
15		S-5		0				15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 31

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-11	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 9.5
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-6		0			Becomes trace gravel (1" thick layer of wood chips)	
25		S-7		0			Becomes trace silt, trace fine sand, and wood fragments	25
							Bottom of boring at 26.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 31

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-12	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		CC-1	GF-B-12-1-2.5	0			Asphalt debris	
							Very moist, brown orange, mottled slightly silty gravelly SAND (SP); poorly graded fine to medium sand	
5	Backfilled with medium bentonite chips			0				5
							Becomes wet	
		CC-2		0			Wet, dark gray, very sandy SILT (ML); poorly graded fine sand, rapid dilatancy	
			GF-B-12-7.5-9	0			Wood	
10				0			Bottom of boring at 10' BGS	10
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 32

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-13	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 3
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			GF-B-13-1-2.5				Loose, moist, gray-brown, slightly silty, gravelly, SAND (SW); well-graded fine to coarse sand, angular gravel	
		S-1		0			Becomes wet	
5	Backfilled with medium bentonite chips	S-2		0			Becomes trace gravel	5
		S-3		0			Loose, wet, SAND (SP); trace coarse sand, poorly graded fine to medium sand, shell fragments	
10		S-4	GF-B-13-10-11.5	0			Loose, wet SAND (SW); well-graded fine to coarse sand and shell fragments	10
		S-5		0			Becomes trace coarse sand Becomes very loose with wood chips from 12 to 13'	
15		S-6		0			Very loose, wet, slightly silty SAND (SP); trace coarse sand, poorly sorted fine to medium sand, shell fragments, slight sulfide odor	15

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 33

ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-13	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 3
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-7		0				
							Very dense, wet, gray, very silty, SAND (SM); trace coarse sand, poorly graded fine to medium sand, diamict fabric	
25		S-8		0				25
							Bottom of boring at 25.5' BGS	
30								30
35								35

Sampler Type:
- No Recovery
- Grab Sample
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 33

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-14	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 2.5
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
0		S-1	GF-B-14-1-2.5	0			Very loose, slightly moist, brown, slightly gravelly SAND (SW-SM); petroleum-like odor	0
	▼	S-2		0			Becomes wet, gray, poorly sorted fine sand, faint petroleum-like odor, and trace shells	
5	Backfilled with medium bentonite chips	S-3		0				5
		S-4	GF-B-14-7.5-9	0			Very loose, wet, gray SAND (SW); trave fine gravel, trace silt, well-graded fine to coarse sand	
10		S-5		0			Becomes medium dense	10
15		S-6		0				15

Sampler Type:
- ◯ No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

▼ Static Water Level

▽ Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 34

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Project Number	Boring Number	Sheet
110207	GF-B-14	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev
Depth to Water (ft BGS) 2.5
Start/Finish Date 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-7		0			Becomes dense	
							Dense, wet, gray SAND (SP); trace silt, poorly graded medium to coarse sand	
25		S-8		0				25
							0.5 inch bed organic SILT (ML); woody debris	
							Very soft, wet, brown, SILT (ML); slight hydrogen sulfide odor	
30		S-9		0				30
							Bottom of boring at 31.5' BGS	
35								35

Sampler Type:
- No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 34

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-15A	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 10
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-1	GF-B-15A-1-2.5	0			Medium dense, wet, brown, slightly gravelly SAND (SW-SM); trace building debris	
		S-2		0				
5	Backfilled with medium bentonite chips	S-3		0			Becomes very loose	5
		S-4	GF-B-15A-7.5-9	0				
10		S-5	GF-B-15A-10-11.5	0			Becomes loose, wet, and gray to black	10
							Medium dense, wet, black, slightly silty GRAVEL (GM);	
15		S-6	GF-B-15A-15-16.5	0				15
							Very loose, wet, dark gray to black, slightly silty SAND (SW-SM); trace shell fragments	

Sampler Type:
- No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 35

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	GF-B-15A	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Hollow Stem Auger
Sampling Method: Splitspoon

Ground Surface Elev:
Depth to Water (ft BGS): 10
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		S-7		0				
25		S-8	GF-B-15A-25-26.5	0			Becomes dark gray, trace gravel, well-graded fine to coarse sand	25
30		S-9		0			Very dense, wet, gray, slightly gravelly SAND (SW); trace silt, trace shell fragments	30
							Bottom of boring at 31.5 BGS	
35								35

Sampler Type:
- No Recovery
- 3.25" OD D&M Split-Spoon Ring Sampler

PID - Photoionization Detector (Headspace Measurement)

- Static Water Level
- Water Level (ATD)

Logged by: MV
Approved by: SJG
Figure No. A- 35

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	HW-B-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6
Start/Finish Date: 6/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			HW-B-1-0-1	0.3			Asphalt Slightly moist, dark brown and brown mottled, slightly silty, very gravelly SAND (SP-SM); fine sand	
	Backfilled with medium bentonite chips	CC-1		0				
			HW-B-1-3-4	0			Moist, brown-orange mottled, slightly gravelly SAND (SP); fine to medium sand	
				0				
5				0				5
			HW-B-1-6-7	0				
		CC-2		0			Wet, dark gray, sandy SILT (ML); trace gravel, fine sand	
				0				
10				0				10
				0				
		CC-3		0			Wet, dark gray, silty, very gravelly SAND (SM); fine to coarse gravel	
				0			Wet, dark gray, slightly gravelly, slightly sandy SILT (ML); trace fibrous organics	
				0				
15				0			Bottom of boring at 15 ' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 36

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	HW-B-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 6/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	HW-B-2-0-1	0			Wood chips	
				0			Very moist, gray SAND (SW); trace gravel, fine to coarse sand	
			HW-B-2-3-4	0				
				0			Moist, dark brown, gravelly, sandy SILT (ML)	
				0			Wet, gray, slightly gravelly SAND (SW); fine to coarse sand, fine gravel	
5		CC-2		0			Wet, dark brown, sandy SILT (ML)	5
			HW-B-2-6-7	0			Wet, gray, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0			Wet, gray, gravelly, sandy SILT (ML); scattered organic- wood- debris	
				0				
							Slightly clayey	
10		CC-3		0				10
				0				
				0				
				0				
				0				
15				0			Bottom of boring at 15 ' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 37

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-01 (DP-15)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.15
Depth to Water (ft BGS): 6
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	5" Flush-mount monument and thermos cap						Asphalt, gravel	0
1	Concrete surface seal 0' to 2'			0			Very moist, brown to gray, silty, sandy GRAVEL (GM); fine to medium, subrounded gravel, 2" bed of charred organics at 1'	1
2	3/8" Hydrated bentonite chips 2' to 2.5"	CC-1		0			Very moist, brown, gravelly SAND (SP); fine to medium sand	2
3	2/12 Silica sand filter pack 2.5' to 13'		DP-15-3-4	0				3
4				0			Very moist, brown, very silty SAND (SM); fine sand	4
5				0			Very moist, brown SAND (SP); fine to medium sand Fill debris from 4.75' to 6.5': charred wood, nails, ceramic, black and orange debris	5
6	▼			0				6
7	1" Diameter PVC pre-packed .001 slot screen 3' to 13'	CC-2	DP-15-6.5-7.5	0				7
8				0			Wet, gray, very sandy GRAVEL (GP); fine, rounded gravel	8
9				0			Wet, gray SAND (SP); fine to medium sand	9
10				0				10
11				0				11
12		CC-3		0			Wet, gray, sandy SILT (ML)	12
13	Threaded cap			0			Wet, gray SAND (SP); fine to medium sand, frequent silt laminae	13
14	Slough			0				14
15				0			Bottom of boring at 15 ' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
○ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 39

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-02 (DP-14)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 13.23
Depth to Water (ft BGS): 6
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	5" Flush-mount monument and thermos cap; Concrete surface seal 0' to 2'; 3/8" Hydrated bentonite chips 2' to 2.5"; 2/12 Silica sand filter pack 2.5' to 13'	CC-1	DP-14-3-4	0			Asphalt	1
2				0			Very moist, gray to brown, gravelly SAND (SP); fine to medium sand	2
3				0				3
4				0				4
5				0			Landfill debris: brick, wood, plastic	5
6	▼			0			Wet, brown to gray, slightly sandy, very silty GRAVEL (GM); fine to medium subrounded gravel, debris: brick, plastic, tile/ceramics, wood	6
7	1" Diameter PVC pre-packed .001 slot screen 3' to 13'	CC-2		0				7
8				0				8
9			DP-14-9-10	0				9
10				0				10
11				0				11
12		CC-3		0			Black from 12' to 15'	12
13	Threaded cap			0				13
14	Slough			0				14
15				0			Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
○ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 40

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-03 (DP-09)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.11
Depth to Water (ft BGS): 3
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	5" Flush-mount monument and thermos cap						Asphalt	0
1	Concrete surface seal 0' to 2'			0			V. moist, gray, sandy, silty GRAVEL (GP); fine to medium subrounded gravel	1
2	3/8" Hydrated bentonite chips 2' to 2.5"	CC-1		0			Wet, gray, slightly gravelly SAND (SP); fine to medium sand	2
3	2/12 Silica sand filter pack 2.5' to 13'			0				3
4			DP-9-3.5-4.5	0				4
5							Wet, dark gray, silty SAND (SM), fine sand, numerous shell fragments	5
6				5.4				6
7	1" Diameter PVC pre-packed .001 slot screen 3' to 13'	CC-2						7
8			DP-9-7.5-8.5				Wet, gray, SAND (SP); fine to medium sand	8
9				25.9				9
10								10
11				20.3				11
12		CC-3						12
13	Threaded cap		DP-9-13-14					13
14	Slough			12.3			Wet, gray, silty SAND (SM); fine sand	14
15							Wet, gray, slightly gravelly SAND (SP); fine to medium sand	15
							Bottom of boring at 15' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 41

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-04 (DP-07)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.2
Depth to Water (ft BGS): 5
Start/Finish Date: 2/15/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	5" Flush-mount monument and thermos cap					Asphalt	Asphalt	0
1	Concrete surface seal 0' to 2'			0		Moist, gray, slightly silty, sandy GRAVEL (GP); fine subangular gravel	Moist, gray, slightly silty, sandy GRAVEL (GP); fine subangular gravel	1
2	3/8" Hydrated bentonite chips 2' to 2.5"	CC-1		0				2
3	2/12 Silica sand filter pack 2.5' to 13'			0		Wet, gray, sandy SILT (ML)	Wet, gray, sandy SILT (ML)	3
4			DP-7-4-5	0		Moist, gray, slightly silty, sandy GRAVEL (GP); fine subangular gravel	Moist, gray, slightly silty, sandy GRAVEL (GP); fine subangular gravel	4
5	▼			0.1		Wet, gray, sandy SILT (ML)	Wet, gray, sandy SILT (ML)	5
6				0.1				6
7	1" Diameter PVC pre-packed .001 slot screen 3' to 13'	CC-2	DP-7-7-8	0.1				7
8				0.1				8
9				0.1		Wet, dark gray SAND (SP); fine to medium sand	Wet, dark gray SAND (SP); fine to medium sand	9
10		○		0				10
11				0				11
12		CC-3		0		Wet, dark gray SILT (ML)	Wet, dark gray SILT (ML)	12
13	Threaded cap			0		Wet, dark gray to dark brown, slightly silty SAND (SP); fine to medium sand, numerous organics	Wet, dark gray to dark brown, slightly silty SAND (SP); fine to medium sand, numerous organics	13
14	Slough			0				14
15							Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
○ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 42

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-05 (DP-16)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 13.36
Depth to Water (ft BGS): 6
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	5" Flush-mount monument and thermos cap Concrete surface seal 0' to 2' 3/8" Hydrated bentonite chips 2' to 2.5" 2/12 Silica sand filter pack 2.5' to 13'	CC-1		0			Grass over topsoil	1
2				0			Very moist, brown to gray, sandy SILT (ML); fine sand	2
3				0				3
4			DP-7-4-5	0			Very moist, dark gray, sandy, gravelly SILT (ML)	4
5				0.1				5
6	▼			0.1				6
7	1" Diameter PVC pre-packed .001 slot screen 3' to 13'	CC-2	DP-7-7-8	0.1				7
8				0.1				8
9				0.1				9
10				0				10
11				0			Wet, organic SILT (OL); numerous wood organics	11
12		CC-3		0				12
13	Threaded cap			0			Wet, dark gray SAND (SP); fine to medium sand, numerous shells and wood debris	13
14	Slough			0				14
15							Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
◯ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 43

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	MW-06 (DP-17)	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 20.43
Depth to Water (ft BGS): 16
Start/Finish Date: 2/16/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	5" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'			0			Asphalt	
							Concrete	1
2		CC-1		0			Moist, dark gray, sandy GRAVEL (GP); fine to medium subrounded to angular gravel	2
3				0				3
4			DP-17-4-5	0				4
5				0.1			Moist, dark gray, SAND (SP); fine sand, occasional shell fragments	5
6				0.1				6
7	3/8" Hydrated bentonite chips 2' to 12'	CC-2		0.1				7
8				0.1				8
9				0.1			Concrete rubble	9
10				0			Moist, gray, slightly gravelly, slightly sandy SILT (ML); fine sand	10
11				0			Moist, gray-green CLAY (CL)	11
12		CC-3		0			Moist, gray, slightly gravelly, sandy SILT (ML); fine sand	12
13	2/12 Silica sand filter pack 12' to 24'			0				13
14				0				14
15								15
16	▼						Wet from 16' to 18'	16
17		CC-4						17
18	1" Diameter PVC pre-packed .001 slot screen 14' to 24'			0			Wood debris at 17.5'	18
19								19
20							Wet, gray to dark gray, gravelly SILT (ML); no odor	20
21								21
22		CC-5	DP-17-22-23	0				22
23				0				23
24	Threaded cap Slough							24
25							Bottom of boring at 25' BGS	25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 44

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Grass over topsoil	
				0.2			Moist, brown, gravelly, very silty SAND (SM); fine sand	
	Backfilled with medium bentonite chips	CC-1		0.2				
				0.2			Moist, gray, gravelly SAND (SP); fine to medium sand	
				0.2			Fine sand, no gravel	
5				0.2			Poor recovery 5' to 10'	5
		CC-2		0.3				
				0.3				
			NRP-B-1-9-12	0.3				
10				0.3			Wet, gray, slightly silty SAND (SP-SM)	10
		CC-3		0.3				
				0.3				
				0.3				
				0.3				
15				0.3			Bottom of boring at 15' BGS	15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 45

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core
Ground Surface Elev:
Depth to Water (ft BGS):
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1		1.2			Moist, gray, slightly silty, sandy GRAVEL (GW); fine to coarse angular gravel	
				1.2				
			NRP-B-2-3-4	12.7			Moist, gray SAND (SP); fine sand	
				47.8				
				61.3				
				16.8			Silt lens at 4.5'	
5				21.5				5
		CC-2		26.0			Dark gray, strong petroleum-like odor, moderate metallic/rainbow sheen	
				190.5				
				152.0				
				89.0				
			NRP-B-2-8-10	446.8				
				397.7				
				353.7				
				360.2				
10				356.3				10
				464.3				
				426.8				
		CC-3		46.5			Silt and wood 11.5' to 12'	
				7.3				
			NRP-B-2-14-15	4.6				
15				2.5				15
							Bottom of boring at 15' BGS	
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 46

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Grass over topsoil	
	Backfilled with medium bentonite chips	CC-1		0.2			Moist, brown, very gravelly SAND (SW); fine to coarse sand, subrounded gravel, cobble at 2.5'	
				0.2				
				0.3			Moist, gray, very gravelly, very silty SAND (SM); fine sand	
5		CC-2		0.3				5
				0.2				
				0.2				
			NRP-B-3-8.5-9.5	0			Wet, gray, SAND (SP); trace silt and gravel, fine to medium sand	
				0				
10				0				10
				0				
		CC-3		0				
				0				
				0			Wood at 14'	
15				0			Silt at 14.75'	15
							Bottom of boring at 15' BGS	
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 47

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1		0.2			Moist, gray, sandy GRAVEL (GW); trace silt, angular, fine to coarse gravel	
				0.2				
				0.2				
				0.3				
5		CC-2		0.3				5
				0.3				
				0.3				
				0.2				
							Becomes wet, slightly silty	
10		CC-3		0.1			Wet, gray, silty GRAVEL (GM); fine to coarse angular gravel, faint petroleum-like odor, rainbow sheen 15' to 20'	10
				3.4				
				3.6				
			NRP-B-4-13.5-14.5	4.5				
				6.0				
15		CC-4		5.0				15
				3.4				
				3.5				
				3.5				
				3.5				
20				3.5			Bottom of boring at 20' BGS	20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 48

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-05	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8.5
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1		0			Moist, gray, slightly sandy GRAVEL (GW); fine to coarse subangular to subrounded gravel	
				0				
				0				
				0			Refusal at 4.5', moved hole over ~1/2'; Moist, brown to gray, sandy, silty GRAVEL (GM); fine to coarse angular gravel	
5		CC-2		0				5
				2.0				
				2.0				
				1.6				
			NRP-B-5-9-10	17.0			Wet, gray, slightly silty, gravelly SAND (SP); fine to medium sand, trace organics: wood; petroleum-like odor, moderate rainbow and bleb sheen	
10		CC-3		18.3				10
				30.6			Wet, gray GRAVEL (GP); fine rounded gravel	
							Refusal at 11', bottom of boring at 11' BGS	
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 49

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-06	1 of 1

Project Name: Kimberly Clark-Everett Mill
Ground Surface Elev:
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Depth to Water (ft BGS):
Sampling Method: Continuous Core
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1		0			Asphalt	
				0			Slightly moist, gray, sandy GRAVEL (GW); fine to coarse angular gravel	
				0				
5				0			Bottom of boring at 4' BGS	5
10								10
15								15
20								20

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 50

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-07	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt, post-holed to 1' because of utilities	
	Backfilled with medium bentonite chips	CC-1		0			Moist, brown, silty, sandy GRAVEL (GM); fine angular gravel	
				0				
				0			Concrete rubble 3.25' to 4'	
				0			Moist, very silty, very sandy GRAVEL (GM); fine to coarse angular gravel	
5		CC-2		0				5
				6.7			Very moist, gray SAND (SP); fine to medium sand, strong petroleum-like odor, heavy rainbow and bleb sheen	
				10.8				
			NRP-B-7-9-10	15.1			Numerous organics at 9'	
				109.8				
10		CC-3		10.8				10
				10.7				
				7.1				
				7.1				
				6.8			Wet, dark gray, very silty SAND (SM); fine sand	
15		CC-4		5.0			Wet, gray, SAND (SP); fine sand, trace organics	15
				10.1				
				12.1			Wet, dark gray, very silty SAND (SM); fine sand	
				10.1				
			NRP-B-7-19-20	10.1				
20				7.1			Wood at 19.75'	20
							Bottom of boring at 20' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 51

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-08	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8.5
Start/Finish Date: 6/1/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1		0.3 0.3 0.3 0.3			Moist, gray, slightly sandy GRAVEL (GW); fine to coarse angular gravel	
5		CC-2		0.8			Very moist, gray, sandy, very silty GRAVEL (GM); fine to coarse angular gravel	5
				6.7 8.5			Moist, gray, sandy SILT (ML)	
			NRP-B-8-8.5-9.5	7.6 8.5 8.3			Wet, gray, SAND (SP); fine to medium sand Wood at 9.5'	
10		CC-3	NRP-B-8-11-12	0 0				10
				0			Wet, dark gray SILT (ML)	
				0 0			Wet, gray, SAND (SP); fine to medium sand, wood at 13'	
							Refusal at 13.5'; bottom of boring at 13.5' BGS	
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 52

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-09	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9.5
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			NRP-B-8-0-1	0			Asphalt	
				0			Slightly moist, brown-gray, sandy GRAVEL (GP); crushed rock	
	Backfilled with medium bentonite chips	CC-1	NRP-B-8-3-4	0			Moist, dark gray, sandy SILT (ML); fine sand	
5				0				5
		CC-2		0				
				0			Wood	
				0			Wet, dark gray SAND (SP); fine to medium sand	
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 53

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Project Number	Boring Number	Sheet
110207	NRP-B-10	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	NRP-B-10-0-1	0			Asphalt	
				0			Slightly moist, gray to brown, sandy GRAVEL (GP); crushed rock	
			NRP-B-10-3-4	0			Moist, dark gray, sandy SILT (ML); fine sand	
				0			Wood debris at 3' and 4.5'	
5				0				5
		CC-2						
							Wood	
							Wet, gray SAND (SP); fine to medium sand	
10							Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 54

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-11	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6
Start/Finish Date: 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	NRP-B-11-0-1	1.5			Asphalt	
				0			Moist, gray, sandy, silty GRAVEL (GM); crushed rock	
			NRP-B-11-3-4	0			Moist, dark gray SAND (SP)	
				0				
5				0			Moist, gray, slightly sandy CLAY (CL)	5
		CC-2		0				
				0				
				0			Wood	
				0			Wet, gray, SAND (SP); fine to medium sand	
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 55

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-12	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS):
Start/Finish Date: 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	NRP-B-12-0-1	2.0			Asphalt	
				0.5			Moist, gray, sandy GRAVEL (GP); crushed rock	
			NRP-B-12-3-4	0			Moist, gray, very silty SAND (SM); fine sand	
				0			Moist, gray, slightly sandy SILT (ML); numerous organics, wood	
5		CC-2		0				5
							Refusal at 7.5'; bottom of boring at 7.5' BGS	
10								10
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 56

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Project Number	Boring Number	Sheet
110207	NRP-B-13	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7.5
Start/Finish Date: 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			NRP-B-13-0-1	1.5			Asphalt	
							Moist, gray, sandy GRAVEL (GP); crushed rock	
	Backfilled with medium bentonite chips	CC-1		0			Moist, gray SAND (SP); fine sand	
			NRP-B-13-3-4	0				
				0			Moist, gray SILT (ML)	
							Wood	
5				0			Wet. gray SAND (SP); fine to medium sand	5
		CC-2		0				
				0				
				0				
				0				
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 57

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-14	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			NRP-B-14-0-1	0			Asphalt	
				0			Slightly moist, gray, sandy gravel (GP); crushed rock	
	Backfilled with medium bentonite chips	CC-1		0			Moist, dark gray, sandy SILT (ML)	
			NRP-B-14-3-4	0				
				0				
5				0				5
				0			Wet, black/brown wood debris	
		CC-2		0				
				0			Wet, gray SAND (SP); fine to medium sand	
				0				
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 58

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-15	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7
Start/Finish Date: 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
			NRP-B-15-0-1	2.5			Asphalt	
				0.5			Moist, light gray GRAVEL (GP); crushed rock	
	Backfilled with medium bentonite chips	CC-1	NRP-B-15-3-4	0.5			Moist, dark gray, very silty SAND (SM); fine sand	
				0.4				
5				0.4				5
		CC-2		0			Wet, gray sandy SILT (ML)	
				0				
				0				
				0			Wet, dark brown PEAT (PT)	
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 59

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	NRP-B-16	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
0	Backfilled with medium bentonite chips	CC-1	NRP-B-15-0-1	2.5			Asphalt, crushed rock and gravel	0
				0.5			Moist, dark gray, slightly sandy SILT (ML)	
			NRP-B-15-3-4	0.5				
				0.4				
5		CC-2		0.4				5
				0			2" of gravel at 6'	
				0			Wet, dark gray, silty CLAY (CL)	
				0			Wood	
				0			Wet, gray, sand (SP); fine to medium sand	
10				0			Bottom of boring at 10' BGS	10
15								15
20								20

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 60

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	NRP-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev. 13.56
Depth to Water (ft BGS) 9
Start/Finish Date 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	8" Flush-mount monument and thermos cap					Asphalt	Asphalt and crushed rock	0
1	Concrete surface seal 0' to 2'						(Refer to boring log for NRP-B-2 for PID readings)	1
2		CC-1				Sand	Moist, gray SAND (SP); fine to medium sand	2
3	3/8" Hydrated bentonite chips 2' to 4'							3
4								4
5	10/20 pre-pack Silica sand filter pack 4' to 15'					Sand	Moist, gray, silty SAND (SM); fine sand	5
6								6
7		CC-2				Sand	Moist, gray SAND (SP); fine to medium sand, trace organics: shells and wood, strong petroleum-like odor, sheen at 8'	7
8								8
9	2" Diameter PVC pre-packed .001 slot screen 5' to 15'							9
10						Sand	Wet, gray, silty SAND (SM); trace gravel medium to coarse sand, slight petroleum-like odor, slight sheen	10
11								11
12		CC-3					Wood chips at 12'	12
13								13
14						Sand	Wet, gray SAND (SP); medium sand, trace organics, trace seashell fragments	14
15	Threaded cap						Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 61

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	NRP-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.09
Depth to Water (ft BGS): 8
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'						Grass over topsoil; post-holed to 2 feet for utilities	0
1				0			Moist, dark gray, gravelly, very silty SAND (SM); fine sand	1
2				0				2
3	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0				3
4				0			Moist, dark gray SAND (SP); fine sand interbedded with 1/4" lenses of silt	4
5	10/20 pre-pack Silica sand filter pack 4' to 15'			0				5
6				0				6
7		CC-2		0			4" lens of dark gray SILT (ML) Moist to wet, dark gray SAND (SP); fine sand	7
8	▼			0				8
9	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0			Medium sand at 9', trace organics-shell fragments	9
10				0				10
11				0				11
12		CC-3		0				12
13				0				13
14				0			Wet, dark gray SILT (ML)	14
15	Threaded cap			0			Wet, dark gray SAND (SP); numerous organics-wood Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
◯ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 62

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	NRP-MW-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 13.3
Depth to Water (ft BGS): 7.5
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'			0			Grass over topsoil; post-holed to 2 feet for utilities	1
2				0			Moist, dark gray SAND (SP); fine sand, trace organics-wood	2
3	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0			Moist, dark gray SILT (ML)	3
4				0			Moist, dark gray SAND (SP); fine sand	4
5	10/20 pre-pack Silica sand filter pack 4' to 15'			0			Moist, dark gray SILT (ML)	5
6				0			Moist to wet, dark gray SAND (SP); fine to medium sand	6
7	▼	CC-2		0				7
8				0				8
9	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0			Wet, dark gray SILT (ML)	9
10				0			Moist, dark gray SAND (SP); fine to medium sand, numerous organics-wood- every 2"	10
11				0				11
12		CC-3		0				12
13				0			Wet, dark gray SILT (ML); numerous organics-wood	13
14				0				14
15	Threaded cap			0			Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
○ No Recovery
▌▌ Continuous Core

PID - Photoionization Detector
▼ Static Water Level
▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 63

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	NRP-MW-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.39
Depth to Water (ft BGS): 6.5
Start/Finish Date: 6/6/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	8" Flush-mount monument and thermos cap					Asphalt	Asphalt	0
1	Concrete surface seal 0' to 2'			0		Gravel	Slightly moist, sandy, silty GRAVEL (GM); fine gravel	1
2		CC-1		0				2
3	3/8" Hydrated bentonite chips 2' to 3'			0				3
4	10/20 pre-pack Silica sand filter pack 3' to 14'			0		Sand	Moist, gray, slightly silty SAND (SP-SM); fine sand	4
5				0		Silt	Wet, gray, sandy SILT (ML)	5
6	▼			0				6
7		CC-2		0				7
8	2" Diameter PVC pre-packed .001 slot screen 4' to 14'			0		Clay	Wet, gray CLAY (CL)	8
9				0		Peat	Wet, dark brown to black PEAT (PT)	9
10				0		Sand	Wet, gray SAND (SP)l fine to medium sand, trace organics-wood- at 11' and 12'	10
11				0				11
12		CC-3		0				12
13				0			Fine sand 12.5' to 14'	13
14	Threaded cap			0			Refusal at 14'; bottom of boring at 14' BGS	14
15								15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 64

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	NRP-MW-05	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.14
Depth to Water (ft BGS): 6.5
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'						Moist, gray, slightly silty, sandy GRAVEL (GP-GM); crushed rock, fine to coarse sand	1
2								2
3	3/8" Hydrated bentonite chips 2' to 3'	CC-1		0			Moist, gray to dark gray, clayey SILT (ML)	3
4	2/12 pre-pack Silica sand filter pack 3' to 14'			0			Moist to wet, dark gray SAND (SP); fine sand	4
5				0				5
6				0			Moist, gray, sandy, silty GRAVEL (GM)	6
7				0			Wet, dark gray, silty CLAY (CL)	7
8	2" Diameter PVC pre-packed .001 slot screen 4' to 14'	CC-2		0			Wet, dark gray, very sandy GRAVEL (GP); fine to medium sand, fine gravel, charred wood debris	8
9				0			Wet, gray SAND (SP); fine to medium sand	9
10				0				10
11				0				11
12				0			6" slightly silty sand layer at 12'	12
13		CC-3		0			Scattered organics-seashells	13
14	Threaded cap			0				14
15				0			Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 65

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	OMS-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.68
Depth to Water (ft BGS): 9.5
Start/Finish Date: 6/4/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0	8" Flush-mount monument and thermos cap					Gravel surface		0
1	Concrete surface seal 0' to 2'			0		Moist, brown SAND (SP); fine to medium sand		1
2		CC-1		0		Moist, brown SAND (SW); trace gravel, fine to coarse sand		2
3	3/8" Hydrated bentonite chips 2' to 4'			0		Moist, brown sand (SP); trace gravel, fine to medium sand		3
4				0				4
5	10/20 pre-pack Silica sand filter pack 4' to 15'			0				5
6				0				6
7		CC-2		0			Iron oxide staining at 6.5' Slightly gravelly 7' to 8'	7
8				0		Moist, brown, very sandy GRAVEL (GP); fine subrounded gravel		8
9	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0				9
10				0		Wet, brown SAND (SP); fine to medium sand		10
11				0				11
12		CC-3		0				12
13				0				13
14				0			Dark gray 13.5' to 15'	14
15	Threaded cap			0			H2S smell	15
							Bottom of boring at 15' BGS	
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 66

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-"Mini Me"
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7.5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Concrete	
							Void	
	Backfilled with medium bentonite chips	CC-1		0			Moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0			Moist, brown, gravelly SAND (SP); fine sand, fine gravel	
				0				
5			REC2-B-1-5-6	0				5
		CC-2		0			Moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
			REC2-B-1-7-8	0				
				0			Wet, dark gray SAND (SP); fine sand with scattered seashells	
			REC2-B-1-9-10	0				
10				0			No recovery from 10' to 15'	10
		CC-3						
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 67

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-"Mini Me"
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 6.5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Concrete	
							Void	
	Backfilled with medium bentonite chips	CC-1		0			Moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0				
				0				
			REC2-B-2-4.5-5.5					
5				0			Moist, brown, slightly gravelly SAND (SP); fine sand, fine gravel	5
			REC2-B-2-6-7	0				
		CC-2		0				
			REC2-B-2-8-9	0				
				0				
10				0				10
				0				
		CC-3		0				
				0				
				0				
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 68

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-"Mini Me"
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7.5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Concrete	
							Void	
	Backfilled with medium bentonite chips	CC-1		0			Moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0			Moist, orange-brown, gravelly SAND (SP); fine sand, fine gravel	
5				0				5
		CC-2	REC2-B-3-5.5-6.5	0			Very moist, gray SAND (SW); fine to coarse sand	
				0			Moist, gray-orange SILT (ML)	
			REC2-B-3-7-8	0			Wet, brown SAND (SW); fine to coarse sand	
				0				
			REC2-B-3-9-10	0			Wet, brown gravelly SAND (SP); fine to medium sand	
10		CC-3		0				10
							Refusal at 11'; bottom of boring at 11' BGS	
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 69

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 3.5
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1	REC2-B-4-1.5-2.5	9.5			Very moist, brown to black GRAVEL (GP); fine subangular to angular gravel; slight petroleum-like odor and bleb sheen	
				11.8			Very moist, gray SAND (SP); fine to medium sand	
				1.2				
			REC2-B-4-4-5	1.3			Wet at 3.5' BGS	
5				1.2				5
		CC-2	REC2-B-4-6.5-7.5	0.3				
				0.3			Trace gravel, fine sand from 7' to 9.5' BGS with shell fragments	
				0.3				
				0.3				
10				0.3				10
		CC-3		0.3			Fine sand interbedded with medium sand; shell fragments from 11' to 13' BGS	
				0.3				
				0.3				
				0.3				
15				0.3			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 70

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-05	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
				0.5			Very moist, brown SAND (SW); fine to coarse sand	
		CC-1	REC2-B-5-2-3	0.5			Wet at 2' BGS	
				0.2				
				0.2			Wet, gray, silty SAND (SM); fine sand	
5	Backfilled with medium bentonite chips			0.1				5
				0.1			Wet, brown SAND (SW); fine to coarse sand	
		CC-2	REC2-B-5-7-8	0.1				
				0.2			Gray at 8' to 10' BGS	
				0.3				
10				0.3			Wet, gray SAND (SP); trace gravel, medium to coarse sand	10
		CC-3		0.3				
				0.6				
				0.6				
							Wood 14' to 15' BGS	
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 71

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-06	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-"Mini Me"
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8.5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Concrete	
							Void	
	Backfilled with medium bentonite chips	CC-1		0			Moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0				
				0				
5				0				5
		CC-2	REC2-B-6-6-7	0			Moist to wet, brown SAND (SP); fine to medium sand	
				0				
			REC2-B-6-8-9	0				
				0			Wet, gray, sandy SILT (ML); fine sand	
				0				
10			REC2-B-6-10-11				Wet, brown SAND (SP); fine to medium sand	10
		CC-3		0			1' vertically split wet, brown SAND (SP); fine to medium sand, and wet, gray SILT (ML)	
				0			Wet, brown SAND (SP); fine to medium sand	
				0				
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 72

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-07	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 4
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
							Very moist, slightly silty GRAVEL (GP)	
	Backfilled with medium bentonite chips			16.8				
		CC-1		1.6			Very moist, gray to brown SAND (SP); fine to medium sand	
				0.8				
			REC2-B-7-4-5	0.6			Wet at 4' BGS	
5				0.6				5
				0.3				
			REC2-B-7-6.5-7.5					
		CC-2		0.3			Slightly silty, gray SAND (SP); fine sand	
				0.3				
				0.3			Shell fragments 9' to 10', fine to medium sand	
10				0.3				10
				0.3				
		CC-3		0.3				
				0.3				
				0.3			Slightly gravelly at 14' BGS	
15				0.3			Bottom of boring at 15' BGS	15

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- Static Water Level
- Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 73

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-08	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 4.5
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
							Moist, brown, silty, sandy GRAVEL (GM); fine subangular gravel, slight bleb sheen	
	Backfilled with medium bentonite chips	CC-1		2.7			Moist, dark gray, slightly silty, slightly gravelly SAND (SP); fine to medium sand	
				10.3				
			REC2-B-8-4-5	1.4			Wet at 4.5' BGS, Faint petroleum-like odor from 4.5' to 7' BGS	
5				7.3				5
		CC-2		8.0			Wet, gray SAND (SP); trace gravel, fine to medium sand	
				1.5				
				0.8				
				0.8				
10			REC2-B-8-10-11	0.8				10
				0.3				
		CC-3		0.3				
				0.3				
				0.3			Wet, gray, very sandy SILT (ML)	
							Wet, brown PEAT (PT)	
15				0.3			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 74

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-09	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 2
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	▼	CC-1	REC2-B-9-2-3	0.4 0.5 21.3			Very moist, gravelly SAND (SW); fine to coarse sand, strong petroleum-like odor, moderate to heavy bleb sheen Wet at 2' BGS	
	Backfilled with medium bentonite chips			28.0				
				30.0 6.0			Wet, gray, silty, sandy GRAVEL (GM); fine subangular gravel, strong petroleum-like odor, moderate to heavy bleb sheen, black product present in soil sample	
				7.0			Wet, gray SAND (SP); medium to coarse sand, trace gravel, strong petroleum-like odor	
5				3.5 382.2				5
			REC2-B-9-6-7	101.5 156.5				
		CC-2	REC2-B-9-7.5-8.5	9.5			Wet, gray, SAND (SP); fine sand	
				7.0 7.0				
10				2.0				10
		CC-3		1.8 2.0			Medium to coarse sand 12' to 14' BGS	
				1.7				
				1.3			Wet, gray, very sandy GRAVEL (GP); fine, subrounded gravel.	
15				2.7			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 75

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-10	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-"Mini Me"
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 7.5
Start/Finish Date: 6/28/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Void	
							Concrete rubble	
	Backfilled with medium bentonite chips	CC-1		0			Slightly moist, brown, gravelly SAND (SW); fine to coarse sand, fine gravel	
				0				
				0			Moist, brown, slightly silty, gravelly SAND (SP-SM); fine to medium sand, fine gravel, fine gravel	
5			REC2-B-10-5-6					5
		CC-2	REC2-B-10-7-8	0.5			Very moist to wet, blue-gray SAND (SP); fine to medium sand	
				1.3			Very moist, dark brown, sandy SILT (ML); fine to medium sand	
				0.6			Very moist to wet, blue-gray SAND (SP); fine to medium sand	
10			REC2-B-10-10-11	0				10
		CC-3		0				
				0				
				0				
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 76

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-11	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 3
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
	Backfilled with medium bentonite chips	CC-1		18.4			Moist, black, gravelly SAND (SP); fine to medium sand, very strong petroleum-like odor, moderate to heavy rainbow and bleb sheen mix	
				46.9				
			REC2-B-11-3-4	107.5			Wet, color changes to brown, fine sand, no gravel	
				179.4				
				103.8			Wet, gray SAND (SP); fine to medium sand, strong petroleum-like odor, moderate metallic sheen	
				46.6				
5				43.2				5
		CC-2		36.0				
				37.5				
				55.6			Slightly silty	
				296.8				
			REC2-B-11-7.5-8.5	123.6				
				69.8			Wet, gray, gravelly SAND (SP/SW); fine to coarse sand	
				42.2				
				15.6				
10				13.8				10
		CC-3	REC2-B-11-11-12	1.3				
				1.2				
				1.2				
				1.8				
15				1.2				15
							Bottom of boring at 15' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 77

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	REC2-B-12	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/23/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Asphalt	
				0.5			Concrete rubble, fill debris: burlap	
	Backfilled with medium bentonite chips	CC-1		2.8			Moist, gray SAND (SW); trace silt, fine to coarse sand, petroleum-like odor	
				11.8			Moist, brown, silty SAND (SM); trace gravel, fine to medium sand, numerous organics-roots	
5			REC2-B-12-5-6	4.5			Wet, dark gray SAND (SP); fine to medium sand, strong petroleum-like odor, moderate to heavy bleb sheen from 5' to 10' BGS, sticky brown to black product present	5
				28.8				
		CC-2		76.8				
				108.9				
			REC2-B-12-8-9	110.1				
				466.6				
10				84.5				10
				43.5				
		CC-3		91.7			Trace gravel	
				63.7				
				42.5			Refusal at 14' BGS, moved hole ~6 inches to re-drill	
15							Wet, dark brown to dark gray SAND (SP); trace silt and trace gravel	15
				8.0				
		CC-4	REC2-B-12-17-18	1.7				
				0.8				
				0.8				
				0.8			Bottom of boring at 20' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)

- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 78

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC2-MW-05	1 of 1

Project Name:	Kimberly Clark-Everett Mill	Ground Surface Elev	
Location:	Everett, WA	Top of Casing Elev.	15.05
Driller/Method:	Cascade Drilling / Direct Push Probe	Depth to Water (ft BGS)	2.5
Sampling Method:	Continuous Core	Start/Finish Date	5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument set in concrete and thermos cap							
	10/20 pre-pack Silica sand filter pack 1' to 12'		REC2-MW-5-0-2	9.4			Post-holed to 2' for utilities Moist, dark gray to black, slightly gravelly, very silty SAND (SM); fine sand, petroleum-like odor, slight bleb sheen from 0' to 2' BGS	
				0				
			REC2-MW-5-2.5-3.5	0			Wet, gray, slightly silty, slightly gravelly SAND (SP); fine to medium sand	
		CC-1		0				
5				0				5
	2" Diameter PVC pre-packed .001 slot screen 2' to 12'			0				
			REC2-MW-5-7-8	0				
		CC-2		0			Black at 8'	
				0			Wet, gray SILT (ML)	
							Wet, dark gray, SAND (SP); fine sand	
10				0			Wet, gray SILT (ML)	10
							Wet, dark gray, slightly silty SAND (SP); fine sand	
		CC-3		0				
	Threaded cap			0				
	Slough						Numerous organics (shell fragments) from 12.5' to 13' BGS	
				0			Bottom of boring at 13' BGS	
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR

Approved by: SJG

Figure No. A- 79

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

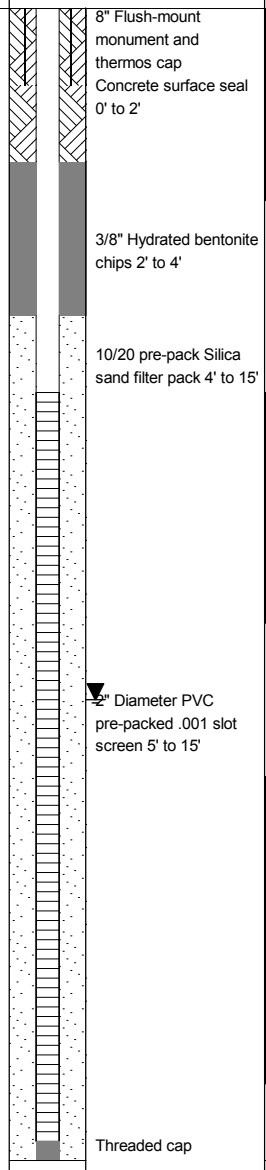
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC3-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.43
Depth to Water (ft BGS): 9
Start/Finish Date: 6/5/2012



Depth / Elevation (feet)	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0			0			Concrete-top 8" cored	0
			0			Moist, brown SAND (SP); trace silt, trace gravel, fine to medium sand	
	CC-1		0				
			0				
5			0				5
	CC-2		0				
		REC3-MW-1-8.5-9.5	0			Wet, slightly silty	
10			0				10
	CC-3		0				
			0				
15			0			1" lens of silt at 14' BGS	15
						Bottom of boring at 15' BGS	

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 80

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

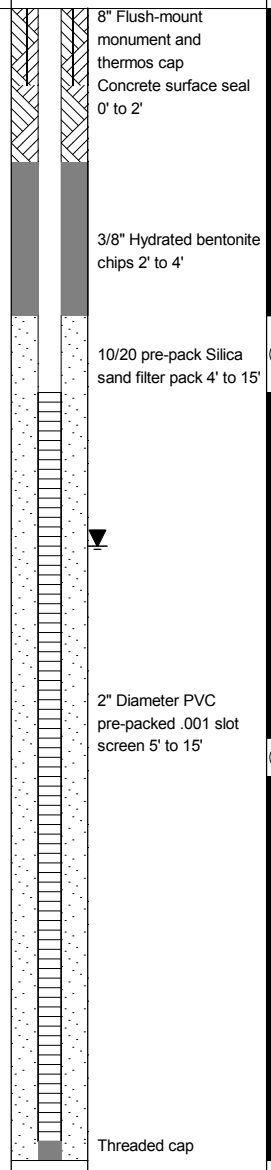
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC5-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.49
Depth to Water (ft BGS): 7
Start/Finish Date: 6/5/2012



Depth / Elevation (feet)	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
						Concrete-cored to 1'	
			0			Moist, dark gray SAND (SP); trace gravel, fine to medium sand	
	CC-1		0.4				
			1.5				
			7.5			Slight metallic sheen at 3' BGS, fine sand	
			137.5				
			60.5			Wood at 4' BGS	
			13.5				
5			1.5				5
			1.2				
		REC5-MW-1-6.5-7.5				Wet, gray, silty SAND (SM); fine sand	
	CC-2		0.3				
			0.2				
			0.2			Wet, gray, SAND (SP); fine to medium sand, trace coarse sand	
10			0.2				10
	CC-3					Wet, dark gray, very silty SAND (SM); fine sand, wood at 12.5' BGS	
						Wet, gray SILT (ML); frequent organics-shell fragments	
						Wet, gray, very silty SAND (SM); fine sand	
15						Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 81

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC6-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.38
Depth to Water (ft BGS): 1
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument set in concrete and thermos cap						Concrete	
	3/8" Hydrated bentonite chips 1' to 1.5'						Pea gravel, white liquid at bottom of pea gravel	
	10/20 pre-pack Silica sand filter pack 1.5' to 12.5'	CC-1		7			Wet, brown, SAND (SP); fine to medium sand	
				1			Pea gravel	
5				1			Wet, dark gray, sandy SILT (ML); trace gravel , strong sweet odor	5
	2" Diameter PVC pre-packed .001 slot screen 2.5' to 12.5'		REC6-MW-1-6	55				
		CC-2						
				20				
10								10
		CC-3		50				
	Threaded cap							
				50			Bottom of boring at 12.5' BGS	
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 82

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

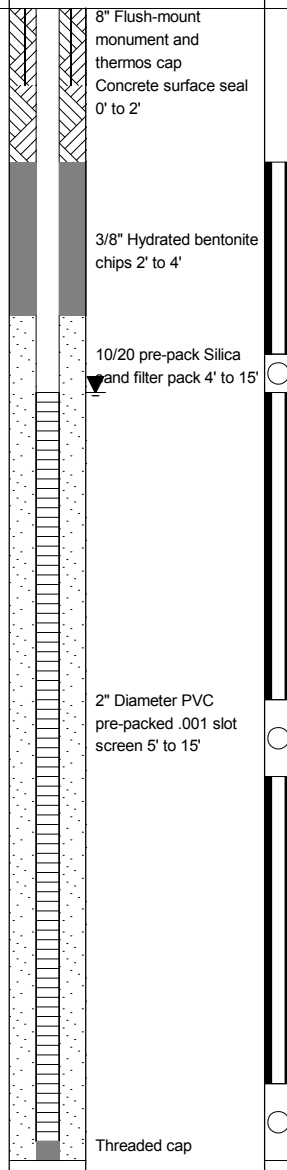
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC6-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 16.67
Depth to Water (ft BGS): 5
Start/Finish Date: 5/25/2012



Depth / Elevation (feet)	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
				Asphalt	
	0			Top 2' post-holed for utilities; Wood chips	
	0			Moist, dark gray, sandy, very silty GRAVEL (GM); fine to coarse gravel	
	0				
	0				
				Wood chips	
5	0			Wet, dark gray, very silty GRAVEL (GM); fine to coarse subrounded gravel	5
	0				
	0				
	0			Wet, gray and brown (mottled), slightly sandy, gravelly SILT (ML)	
	0				
10	0				10
	0			Wet, black to dark gray, very sandy, very silty GRAVEL (GM); fine to coarse subrounded to subangular gravel; slight H2S odor	
	0				
	0				
	0				
	0				
15	0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 83

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC7-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 13.14
Depth to Water (ft BGS): 7
Start/Finish Date: 5/29/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'			0			Gravel fill; driller post-holed to 2' BGS for utilities	
				0			Moist, brown, silty, gravelly SAND (SM); fine sand, iron-staining	
	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0				
				0			Moist, gray SILT (ML)	
	10/20 pre-pack Silica sand filter pack 4' to 15'						Moist, gray SAND (SP); fine sand	
5				0				5
				0			Moist, brown SAND (SP); medium sand	
				0			Woody debris at 7' BGS	
		CC-2					Wet, gray SAND (SP); medium sand, rare organics-shell fragments	
				0				
	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0				
10				0				10
							Trace to numerous organics 11' to 15' BGS	
		CC-3						
	Threaded cap							
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 84

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC7-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.11
Depth to Water (ft BGS): 5.5
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'			0			Asphalt	
				0			Moist, brown, sandy, very gravelly SILT (ML); fine subrounded gravel	
	3/8" Hydrated bentonite chips 2' to 3'	CC-1		0				
	10/20 pre-pack Silica sand filter pack 3' to 15'			0				
5				0			Black, charred debris	5
				0			Wet, brown, silty SAND (SM); fine sand	
				0			Color changes to gray at 7'	
		CC-2		0			Wet, dark gray SAND (SP); medium sand	
	2" Diameter PVC pre-packed .001 slot screen 4' to 14'			0				
10				0				10
				0				
		CC-3		0				
				0				
	Threaded cap			0				
	Slough							
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 85

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

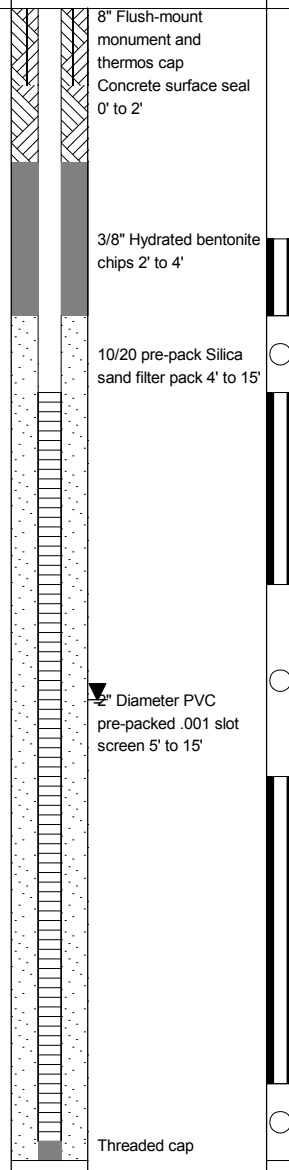
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC7-MW-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.92
Depth to Water (ft BGS): 9
Start/Finish Date: 6/4/2021



Depth / Elevation (feet)	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	0			Post-holed to 3' for utilities	
	0				
	0			Concrete rubble	
	0			Moist, brown, SILT (ML) Numerous wood organics at 4.5'	
5	0			Concrete rubble	5
	0				
	0				
	0			Wet, brown, silty SAND (SM); fine sand	
	0			Wet, brown SAND (SP); fine sand 9 to 9.5', grades to medium sand from 10' to 15'	
10	0				10
	0				
	0				
	0				
	0			Gravelly at 14.5'	
15	0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 86

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	REC7-MW-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 12.69
Depth to Water (ft BGS): 8
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap						Asphalt	
	Concrete surface seal 0' to 3'	CC-1		0.1 0.2 0.3			Moist, brown SAND (SP); trace gravel, fine sand; brick, concrete rubble debris	
	3/8" Hydrated bentonite chips 3' to 4'			0.4			Moist, brown SILT(ML)	
5	10/20 pre-pack Silica sand filter pack 4' to 15'			0.4			Very moist, brown to gray sandy GRAVEL (GP): trace silt and concrete rubble, coarse, subrounded to subangular gravel	5
		CC-2					Wet, brown to gray, slightly gravelly SAND (SP); medium to coarse sand	
10	2" Diameter PVC pre-packed .001 slot screen 5' to 15'						No recovery 10' to 15'	10
		CC-3						
15	Threaded cap						Bottom of boring at 15' BGS	15

Sampler Type:
- No Recovery
- Continuous Core

PID - Photoionization Detector
- Static Water Level
- Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 87

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UG-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 16.95
Depth to Water (ft BGS): 5.5
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 2'			0.4			Asphalt debris, crushed rock, and gravel fill	1
2				0				2
3	3/8" Hydrated bentonite chips 2' to 3'	CC-1		0			Slightly moist, dark gray SAND (SP); fine sand	3
4	2/12 pre-pack Silica sand filter pack 3' to 14'			0			Wood debris at 4'	4
5				0				5
6				0			Wet, dark gray, slightly clayey, slightly sandy SILT (ML); numerous wood organic debris from 8' to 12.5'	6
7		CC-2		0				7
8	2" Diameter PVC pre-packed .001 slot screen 4' to 14'			0			Difficult to drill through wood, hole moved over 2' east to re-drill	8
9				0				9
10				0				10
11				0				11
12		CC-3		0				12
13				0			Wet, gray with iron-oxide staining, SAND (SW); trace fine gravel, fine to coarse sand	13
14	Threaded cap Slough			0				14
15				0			Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 88

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UG-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 18.05
Depth to Water (ft BGS): 4
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
1	8" Flush-mount monument and thermos cap Concrete surface seal 0' to 1' 3/8" Hydrated bentonite chips 1' to 2' 2/12 pre-pack Silica sand filter pack 2' to 13'	CC-1		0.4			Concrete	1
2				0			Moist, dark gray SAND (SP); brick debris	2
3				0			Moist to wet, dark gray SILT (ML); trace gravel	3
4				0				4
5				0				5
6		CC-2		0				6
7				0				7
8	2" Diameter PVC pre-packed .001 slot screen 3' to 13'			0			Wet, dark, gray, slightly gravelly SAND (SW); fine to coarse sand	8
9				0			Orange-gray color 9' to 12.5'	9
10								10
11								11
12		CC-3						12
13	Threaded cap							13
14	Slough						Wet, dark gray, sandy SILT (ML); fine sand	14
15							Bottom of boring at 15' BGS	15
16								16
17								17
18								18
19								19
20								20
21								21
22								22
23								23
24								24
25								25
26								26
27								27
28								28
29								29

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 89

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST29-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.24
Depth to Water (ft BGS): 3.5
Start/Finish Date: 6/27/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument set in concrete and thermos cap 3/8" Hydrated bentonite chips 1' to 1.5' #2/12 pre-pack Silica sand filter pack 1.5' to 12.5'	CC-1		0.7			Asphalt	
							Moist, brown, slightly silty, gravely SAND (SP-SM); fine to medium sand	
							Pea gravel with white liquid at bottom of pea gravel	
							Wet, brown to orange, SAND (SP); fine to medium sand with a layer comprised of a plastic sheet at 3.5'	
				0.8			Pea gravel with white liquid 6.9' to 7'	
5	2" Diameter PVC pre-packed .001 slot screen 2.5' to 12.5'							5
				0.8				
		CC-2	UST29-MW-1-7-8				Wet, dark gray, sandy silt (ML); trace gravel, very strong sweet odor	
				2700				
			UST29-MW-1-8-9					
10								10
				629				
		CC-3						
				84				
	Threaded cap							
				105			Refusal at 12.5'; bottom of boring at 12.5' BGS	
15								15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: AET
Approved by: SJG
Figure No. A- 90

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

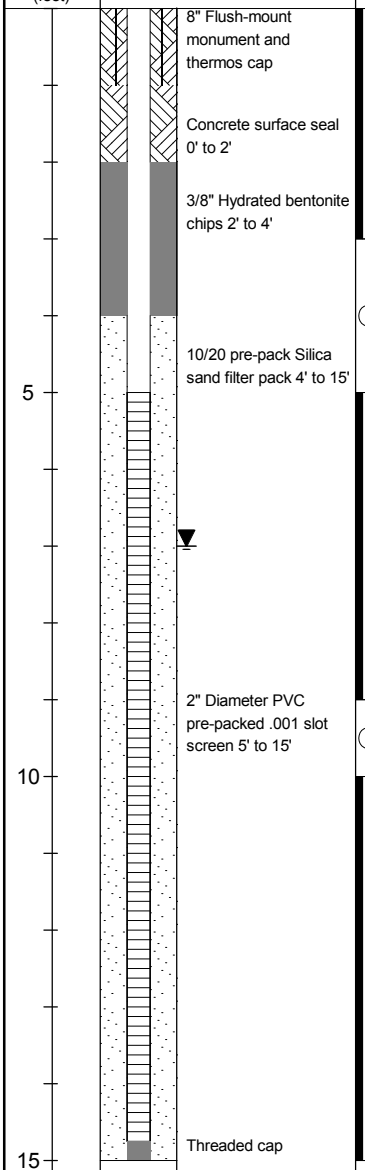
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST68-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.12
Depth to Water (ft BGS): 7
Start/Finish Date: 5/25/2012



Depth / Elevation (feet)	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
			0			Asphalt	
			0			Moist, brown SAND (SP); trace gravel, fine sand	
			0				
			0				
5			0				5
			0			Very moist, gray SILT (ML)	
	CC-2	UST68-MW-1-7-8	0			Wet, brown SAND (SP); fine sand	
			0			Color changes to gray	
			0			2" layer of silt at 9'	
10			0				10
			0				
	CC-3		0				
			0				
			0			Wet, gray silty SAND (SM); fine sand	
15			0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 91

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

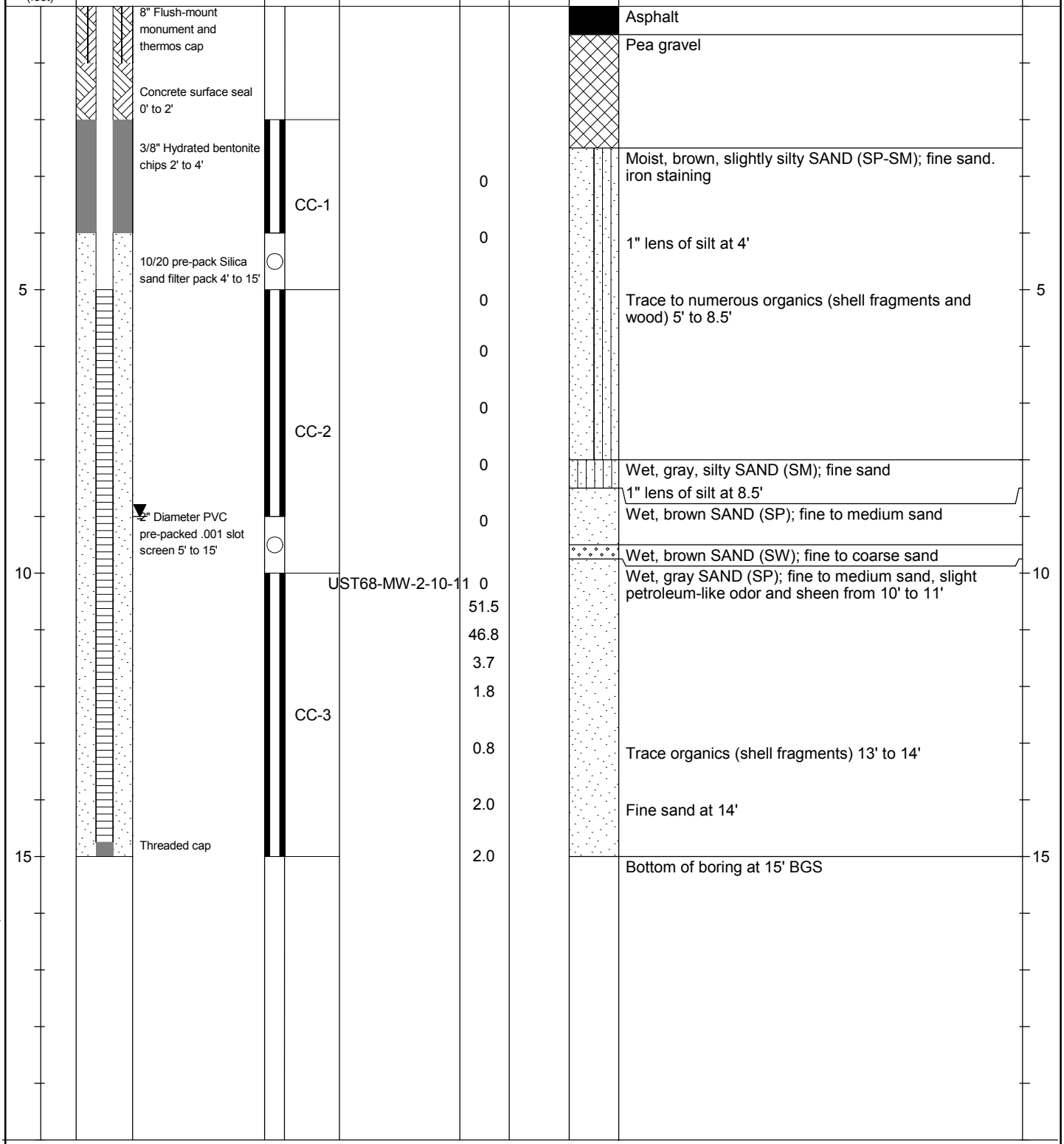
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST68-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 15.33
Depth to Water (ft BGS): 9
Start/Finish Date: 5/30/2012



Depth / Elevation (feet)	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
0			0		Asphalt	Asphalt	0
					Pea gravel	Pea gravel	
	CC-1		0		Moist, brown, slightly silty SAND (SP-SM); fine sand.	Moist, brown, slightly silty SAND (SP-SM); fine sand. iron staining	
			0			1" lens of silt at 4'	
5			0			Trace to numerous organics (shell fragments and wood) 5' to 8.5'	5
	CC-2		0				
			0		Wet, gray, silty SAND (SM); fine sand	Wet, gray, silty SAND (SM); fine sand	
						1" lens of silt at 8.5'	
			0		Wet, brown SAND (SP); fine to medium sand	Wet, brown SAND (SP); fine to medium sand	
					Wet, brown SAND (SW); fine to coarse sand	Wet, brown SAND (SW); fine to coarse sand	
10		UST68-MW-2-10-11	0		Wet, gray SAND (SP); fine to medium sand, slight petroleum-like odor and sheen from 10' to 11'	Wet, gray SAND (SP); fine to medium sand, slight petroleum-like odor and sheen from 10' to 11'	10
			51.5				
			46.8				
			3.7				
	CC-3		1.8				
			0.8			Trace organics (shell fragments) 13' to 14'	
			2.0			Fine sand at 14'	
15			2.0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 92

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST68-MW-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.34
Depth to Water (ft BGS): 6.5
Start/Finish Date: 5/24/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap						Asphalt	
	Concrete surface seal 0' to 2'			0.2			Moist, brown, slightly silty SAND (SP-SM); trace gravel, fine sand	
	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0.2				
				0.2				
	10/20 pre-pack Silica sand filter pack 4' to 15'			0.2				
5			UST68-MW-4-6-6.5	0.1			Wet	5
		CC-2		0.1			Wet, brown, very silty SAND (SM); fine sand	
				0.1			Wet, gray, slightly silty SAND (SP); fine sand	
	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0.1				
10				0.1				10
			UST68-MW-4-11-12	7.0			Wet, dark gray SAND (SP); medium to coarse sand, faint odor	
		CC-3		1.4				
	Threaded cap							
15				2.0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 93

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

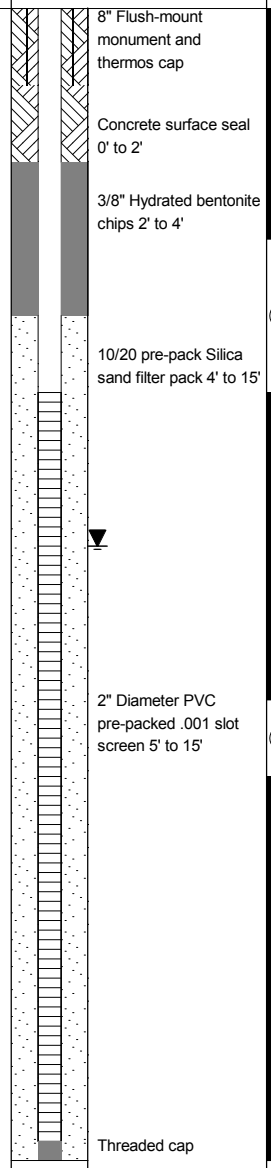
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST68-MW-05	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.12
Depth to Water (ft BGS): 7
Start/Finish Date: 5/24/2012



Depth / Elevation (feet)	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
						Asphalt	
			0.2			Moist, gray to brown, gravelly SAND (SP); trace fine sand, mostly medium sand	
	CC-1		0.2				
			0.2				
			0.2				
5			0.2				5
			0.3			Wet, brown to gray SAND (SP); trace fine sand, mostly medium sand	
		UST68-MW-5-7-8	0.8				
	CC-2		0.7				
			0.7			Dark brown 9' to 12'	
10			0.4				10
		UST68-MW-5-12-13	0.4				
			3.2			Dark gray to black in color 12' to 15', slight H2S odor	
	CC-3		7.2				
			6.1				
15			0.3			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 94

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST69-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.88
Depth to Water (ft BGS): 6
Start/Finish Date: 5/25/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap						Asphalt	
	Concrete surface seal 0' to 2'						Post-holed to 2' for utilities	
	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0			Moist, brown, slightly gravelly SAND (SP); fine to medium sand, mostly medium	
	10/20 pre-pack Silica sand filter pack 4' to 15'			0				
5				0				5
			UST69-MW-1-6-7	0			Wet sand at 6'	
		CC-2		0			Color changes to dark gray and becomes mostly fine sand at 6.5'	
				0				
	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0				
10				0				10
				0				
				0			4" SILT (ML) lens from 11.75' to 12'	
		CC-3		0			Wet, dark gray SAND (SP); fine sand	
				0				
				0			Medium to coarse sand 14' to 14.5'	
	Threaded cap						Wood debris from 14.5' to 15'	
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 95

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST70-B-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8.5
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Wood chips-hogged fuel	
							Moist, gray, sandy, very silty GRAVEL (GM)	
				25.1			Pea gravel	
	Backfilled with medium bentonite chips	CC-1	UST70-B-1-3-4	95.5			Moist, gray SAND (SP); fine to medium sand, strong petroleum-like odor	
				75.1				
5				85.9				5
		CC-2		99.7			Moist, gray, slightly silty SAND (SP-SM); fine to medium sand, strong petroleum-like odor from 6' to 12'	
				100.5				
				99.5				
				25.5				
10				25.5				10
				25.5			Slightly gravelly 11' to 12'	
		CC-3		25.5				
			UST70-B-1-13.5-14.5	6.0				
				6.0				
15				4.5			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 96

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST70-B-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Wood chips-hogged fuel	
				0.4			Moist, brown, slightly gravelly SAND (SP)	
	Backfilled with medium bentonite chips	CC-1		0.4				
				0.4				
				0.4			Moist, dark brown, slightly silty SAND (SP-SM)	
5		CC-2		0.4				5
				0.4				
				0.4				
				0.4			Concrete rubble	
			UST70-B-1-9-10	0.4			Wet, gray, slightly silty, gravelly SAND (SP-SM); trace coarse sand, fine to medium sand	
10		CC-3		0.4				10
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 97

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST70-B-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 9
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
				1.0			Wood chips-hogged fuel	
	Backfilled with medium bentonite chips	CC-1		0.5			Moist, brown, slightly gravelly SAND (SP); fine to medium sand	
				0.6				
				0.6			Brick rubble at 4'	
5				0.6				5
		CC-2		0.6				
				0				
			UST70-B-3-8-9	0.6				
				0.5			Concrete rubble	
10				0.5			Wet, gray, slightly silty SAND (SP-SM); fine to medium sand	10
		CC-3		0.5				
				0.5				
				0.5				
				0.5				
15				0.5			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 98

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST70-B-04	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1	UST70-B-4-0-1	245.5			Moist, gray, sandy, very silty GRAVEL (GM); fine subrounded gravel	
				15.8				
				7.8				
				1.2				
5			UST70-B-4-4.5-5.5	1.2			Moist, dark gray to brown, gravelly SAND (SP); fine sand	5
		CC-2		1.0				
				0.8				
				1.0			Wet	
				1.0				
10				1.0			Moist, dark gray to brown SAND (SP); fine sand	10
		CC-3		0			Wet, gray to brown, gravelly SAND (SW); fine to coarse sand	
				0				
				0				
				0				
15				0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 99

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

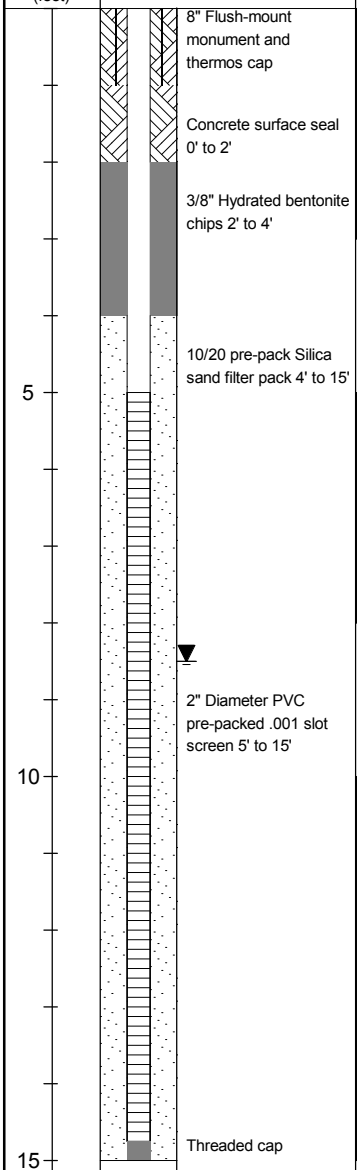
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST70-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.65
Depth to Water (ft BGS): 8.5
Start/Finish Date: 6/5/2012



Depth / Elevation (feet)	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
				Wood chips-hogged fuel	
	0			Moist, gray, silty, very sandy GRAVEL (GM); fine subrounded gravel	
	0.8			Moist, gray SAND (SP); trace gravel, fine to medium sand	
	2.5				
	2.3				
5	1.8				5
	3.0				
	4.0				
	1.8			Wet, gray fine sand	
	0.8				
10	0.4			Medium sand 10' to 12'	10
	2.5				
	2.5			Wet, gray SAND (SW); fine to coarse sand, H2S odor	
	3.0			Wet, gray SAND (SP); fine to medium sand	
	1.2				
15	0.8			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 100

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST70-MW-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 14.23
Depth to Water (ft BGS): 8.5
Start/Finish Date: 6/5/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	8" Flush-mount monument and thermos cap						Moist, dark brown, gravelly, silty SAND (SM); fine sand	
	Concrete surface seal 0' to 2'			0			Concrete rubble	
	3/8" Hydrated bentonite chips 2' to 4'	CC-1		0			Moist, brown, slightly silty, slightly gravelly SAND (SP); fine to medium sand	
				0				
				0			Iron staining at 4'	
	10/20 pre-pack Silica sand filter pack 4' to 15'			0				
5				0				5
		CC-2		0			Moist, brown, gravelly SAND (SP); fine to medium sand	
				0				
				0			Wet, gray sand	
	2" Diameter PVC pre-packed .001 slot screen 5' to 15'			0			1" lens of very silty sand	
10				0			Wet, gray, gravelly SAND (SP); fine to medium sand	10
		CC-3		0				
				0				
				0				
	Threaded cap			0				
15							Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 101

_MONITORING WELL_KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST71-B-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS):
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1		4.0			Wood chips-hog fuel	
				1.7			Moist, gray SILT (ML)	
5				3.0			Moist, gray SAND (SP); fine sand 4' to 4.5', medium sand 4.5' to 15'	5
		CC-2		2.0				
				2.5				
				1.7				
				1.5			Silty	
				1.5				
10				1.5				10
		CC-3	UST71-B-1-12-13	140.0				
				9.0				
15				5.0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 102

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST71-B-02	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 5
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
							Wood chips-hogged fuel	
	Backfilled with medium bentonite chips	CC-1					Concrete rubble	
							Wood chips	
				2.5			Very moist, gray, sandy, very silty GRAVEL (GM); fine subrounded gravel	
5				3.2				5
		CC-2		16.9			Wet, gray GRAVEL (GP); coarse subrounded gravel, petroleum-like odor	
				10.5				
				11.5			Moderate rainbow sheen	
10		CC-3	UST71-B-2-13-14	15.5			Wet, dark brown to black SAND (SP); numerous organics: Wood chips	10
				75			Heavy bleb sheen	
				85				
				75.0				
				80.0			Wet, dark gray to dark brown, silty SAND (SM); heavy sheen	
15				75.8			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 103

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST71-B-03	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 8
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1					Wood chips-hogged fuel	
				6.5			Moist, gray, sandy, very silty GRAVEL (GM); fine, subrounded gravel	
5				7.0				5
		CC-2		9.0			Wet, gray GRAVEL (GP)	
				6.0				
				6.0				
				5.0				
10				5.0				10
		CC-3		52.0				
				75.0				
				75.0				
				60.0			Wood chips; heavy bleb sheen, strong petroleum-like odor	
15				50				15
		CC-4		53.6				
				75.3				
			UST71-B-3-18-19	89.2				
			UST71-B-3-19-20	88.5				

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 104

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Project Number	Boring Number	Sheet
110207	UST71-B-04	1 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev
Depth to Water (ft BGS) 10.5
Start/Finish Date 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
	Backfilled with medium bentonite chips	CC-1					Wood chips-hogged fuel	
				10.7			Moist, gray, sandy, very silty GRAVEL (GM); fine subrounded gravel, slight petroleum-like odor, moderate sheen	
				11.5				
				61.2				
				12.7				
5				12.7			Moist, gray GRAVEL (GP); poor recovery after hitting a rock 2 separate times	5
		CC-2						
10	▼							10
				66			Wet, dark brown, very silty SAND (SM); trace gravel, fine sand, strong petroleum-like odor, heavy bleb sheen	
				84.5				
		CC-3	UST71-B-4-12.5-13.5	561.5				
				89.7				
				101.9				
				28.5			Wet, gray SAND (SP); trace silt, fine sand	
				47.8				
15				27.5				15
				31.8				
				8.8				
		CC-4		21.5			Medium sand 18' to 19'	
				11.8				
				15.7				

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 105

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

Boring Log

Aspect CONSULTING

Project Number	Boring Number	Sheet
110207	UST71-B-04	2 of 2

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Depth to Water (ft BGS): 10.5
Start/Finish Date: 5/31/2012

Depth / Elevation (feet)	Borehole Completion	Sample Type/ID	Tests	PID (ppm)	Drive/ Recovery (inches)	Material Type	Description	Depth (ft)
		CC-5		69.0				
				90.0				
				91.1				
				76.8				
				22.0				
				7.9				
				5.4				
25				12.9				25
		CC-6		62.7				
				25.7				
				14.7				
			UST71-B-4-28-29	29.5			Moderate metallic sheen	
				31.4				
				19.5				
30				7.8			Bottom of boring at 30' BGS	30
35								35

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector (Headspace Measurement)
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 105

_ENV PROBE LOG KIMBERLY CLARK-EVERETT.GPJ September 9, 2012

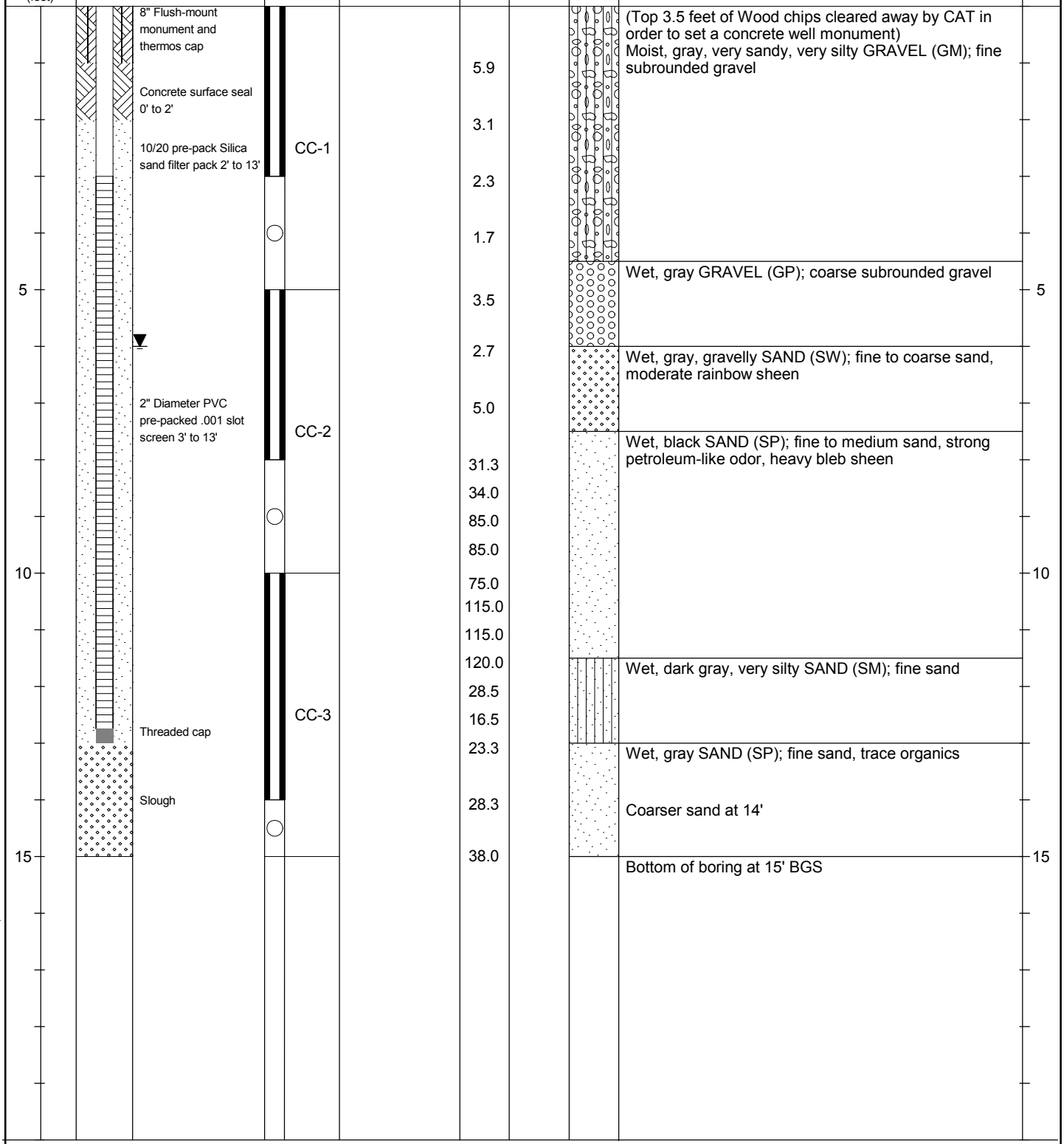
Monitoring Well Construction Log

Aspect CONSULTING

Project Number	Well Number	Sheet
110207	UST71-MW-01	1 of 1

Project Name: Kimberly Clark-Everett Mill
Location: Everett, WA
Driller/Method: Cascade Drilling / Direct Push Probe-Limited Access
Sampling Method: Continuous Core

Ground Surface Elev:
Top of Casing Elev.: 13.66
Depth to Water (ft BGS): 6
Start/Finish Date: 5/31/2012



Depth / Elevation (feet)	PID (ppm)	Blows/ 6"	Material Type	Description	Depth (ft)
	5.9			(Top 3.5 feet of Wood chips cleared away by CAT in order to set a concrete well monument) Moist, gray, very sandy, very silty GRAVEL (GM); fine subrounded gravel	
	3.1				
	2.3				
	1.7				
5	3.5			Wet, gray GRAVEL (GP); coarse subrounded gravel	5
	2.7			Wet, gray, gravelly SAND (SW); fine to coarse sand, moderate rainbow sheen	
	5.0				
	31.3			Wet, black SAND (SP); fine to medium sand, strong petroleum-like odor, heavy bleb sheen	
	34.0				
	85.0				
	85.0				
10	75.0				10
	115.0				
	115.0				
	120.0				
	28.5			Wet, dark gray, very silty SAND (SM); fine sand	
	16.5				
	23.3			Wet, gray SAND (SP); fine sand, trace organics	
	28.3			Coarser sand at 14'	
15	38.0			Bottom of boring at 15' BGS	15

Sampler Type:
- ◯ No Recovery
- ▌▌ Continuous Core

PID - Photoionization Detector
- ▼ Static Water Level
- ▽ Water Level (ATD)

Logged by: MAR
Approved by: SJG
Figure No. A- 106

MONITORING WELL KIMBERLY CLARK-EVERETT.GPJ September 9, 2012