Date: August 22, 2012

GROUNDWATER MONITORING REPORT First Quarter 2012

TOC Holdings Co.
Facility No. 01-176
Mountlake Terrace, Washington

24205 56th Avenue West, Mountlake Terrace, Washington **Property Address: Client Contact:** Mark Chandler, Vice President of Environmental Services Client Work Order/Purchase Order: WOR1176SES18 Washington Department of Ecology Site ID #6885/Agreed Primary Regulatory Agency/ID: Order #DE8661 Project Number: 0440-030 Project Manager: Deborah Gardner, LG #1243 Frequency of Groundwater Sampling: Quarterly (Comprehensive First Quarter, Otherwise Limited) Vacant/Romio's Pizza/Getaway Spirits Tavern Property Owner/Land Use Off-Property Land Use Commercial/Residential

SoundEarth Strategies, Inc. (SoundEarth) prepared this report to present the results of the First Quarter 2012 groundwater monitoring event (monitoring event) conducted at TOC Holdings Co. Facility No. 01-176 located at 24205 56th Avenue West in Mountlake Terrace, Washington (the TOC Property). The TOC Property location is shown on Figures 1 and 2.

A petroleum hydrocarbon plume has migrated west and south off the TOC Property to the 56th Avenue West right-of-way (ROW), the private property located at 24225 56th Avenue West (TOC/Farmasonis Property), and the private property located at 24309 56th Avenue West (Drake Property). The TOC Property, TOC/Farmasonis Property, Drake Property, and portions of the 56th Avenue ROW are collectively referred to as the Interim Remedial Action Project Area, as defined in the Interim Remedial Action Work Plan (IRAWP) attached to Agreed Order #DE8661. The monitoring well network employed for this monitoring event extends as far south as the private property located at 24325 56th Avenue West (Shin/Choi Property). Per the IRAWP, the monitoring wells located at the Shin/Choi Property were not included in the scope of groundwater monitoring.

Time Oil Co. (currently TOC Holdings Co.) formerly operated a retail gasoline station on the TOC Property, which is currently vacant. One 8,000-gallon and two 6,000-gallon underground storage tanks (USTs) were removed from the TOC Property in 1991 (ES&E 1992). A dual-phase extraction remediation system (former DPE system) was installed at the TOC Property in 1996 and operated until October 2004 (Landau 2005). Since August 2005, SoundEarth has conducted groundwater monitoring and resumed

remedial investigations to the south and west of the TOC Property, as well as designed remediation system upgrades and expansion. Currently, three in situ groundwater monitoring systems are under construction at the TOC Property, TOC/Farmasonis Property, and Drake Property. The remediation systems are slated for startup as early as August 2012.

In 2006, SoundEarth confirmed that gasoline contamination extends off the TOC Property to the south and west, and identified at least three separate water-bearing zones at the TOC Property: the Shallow Zone, the Intermediate Zone, and the Deep Zone (Figures 3, 4, 5.1, 5.2, and 5.3).

Shallow Zone

The Shallow Zone occurs within 20 feet of the ground surface, perched within glacial till. The primary source of recharge to the Shallow Zone is natural precipitation that infiltrates pervious land surfaces. Other potential sources of recharge to the Shallow Zone include a topographic closed depression where surface runoff ponds and a former stormwater infiltration pit, both of which are located in the southeast portion of the TOC Property. According to a TOC Holdings Co. blueprint drawing, the stormwater infiltration pit measured 10 feet square by 4 feet deep and was backfilled with coarse gravel (Time Oil Co. 1975). Surface runoff intercepted by a catch basin located near the southeast corner of the paved parking area formerly discharged into the stormwater infiltration pit via a 6-inch-diameter drain pipe, which has been capped. The locations of the southern catch basin and former stormwater infiltration pit at the TOC Property are shown on Figures 3, 5.1, 5.2, and 5.1. Monitoring wells MW02 through MW06, MW12, MW19, MW34, MW54, MW61, MW62, MW67, MW68, and MW79 are screened within the Shallow Zone (Figures 3 and 5.1).

Intermediate Zone

The Intermediate Zone is situated at depths of approximately 20 to 60 feet below ground surface (bgs), and is perched within glacial till soils consisting of poorly sorted, ice-laid silty sand with varying amounts of gravel. The Intermediate Zone is the primary zone of contaminant transport at the Interim Remedial Action Project Area. The stratigraphy of the Intermediate Zone includes water-laid silty sands with varying amounts of gravel. The Intermediate Zone appears to receive recharge from artificial sources in the proximity of natural and/or artificial pathways, in addition to natural precipitation. The primary source of artificial recharge appears to be Shallow Zone groundwater accumulations within the backfill of the former UST cavity. Monitoring wells MW09 through MW11, MW13, MW15, MW16, MW18, MW20 through MW25, MW28, MW31 through MW33, MW35, MW36, MW41 through MW53, MW55 through MW60, MW63, MW65, MW66, MW69, MW70, MW75 through MW77, MW81, MW84 through MW87, MW89 through MW99, and MW101 are screened in the Intermediate Zone (Figures 3 and 5.2).

Monitoring wells MW80, MW82, MW88, and MW100 are screened in the upper Intermediate Zone, between the approximate depths of 20 and 30 feet bgs. The screened intervals for monitoring wells MW08, MW24, MW27, MW29, MW37, and MW38 are shallower than 20 feet bgs, potentially intersecting both the Shallow and Intermediate Zones; data obtained from those monitoring wells may be qualified accordingly.

Deep Zone

The Deep Zone is a semi-confined aquifer situated within glacial advance sand and gravel, at depths of more than 60 feet bgs. The term "semi-confined" describes an aquifer that is trapped beneath a stratigraphic confining layer that prevents groundwater from equilibrating with atmospheric pressure. Groundwater within a semi-confined aquifer can equilibrate with atmospheric pressure inside a properly constructed well. Deep Zone groundwater equilibrates at an elevation higher than the bottom of the glacial till deposit, while Intermediate Zone groundwater drops relatively unconfined toward the bottom of the glacial till deposit. South of the TOC Property, Intermediate Zone groundwater descends through the glacial till to an elevation deeper than the elevation at which the Deep Zone equilibrates with atmospheric pressure. Under those circumstances, the Deep Zone gives the appearance of being approximately 2.3 to 2.8 feet shallower than the Intermediate Zone, maintaining an upward vertical gradient between the two zones. An elevation view illustrating the spatial relationships between the three water-bearing zones is included as Figure 4. Monitoring wells MW26, MW30, MW39, MW40, MW64, and MW78 are screened in the Deep Zone (Figures 3 and 5.3).

Of the 101 monitoring wells that have been installed at the Interim Remedial Action Project Area and the Shin/Choi Property, 5 have been decommissioned. Monitoring wells MW01, MW07, MW14, MW17, and MW83 were decommissioned by a licensed well driller in accordance with *Minimum Standards for Construction and Maintenance of Wells*, Chapter 173-160 of the Washington Administrative Code, by overdrilling and removing the well casing. Monitoring well MW01, located on the TOC Property, was decommissioned on October 2, 2009, immediately upon the discovery that its surface seal had been removed in 1996 during the installation of the former DPE system and that it was situated in an area where surface water ponded seasonally. Monitoring wells MW07, MW14, and MW17, located beyond the TOC Property boundaries, were decommissioned on November 29, 2004, in accordance with an agreement between Time Oil Co. and the neighboring property owner (Landau 2005). Well MW83, also located beyond the TOC Property boundaries, was damaged during autumn 2011, decommissioned on November 21, 2011, and replaced with well MW100 on November 22, 2012.

The monitoring event was conducted on March 5 through 9, 2012, to evaluate the environmental quality, flow direction, and gradient of groundwater beneath the Interim Remedial Action Project Area and to eventually demonstrate compliance with MTCA cleanup regulations. This report presents field activities performed during the monitoring event, laboratory analytical results, and a description of upcoming work. In the preparation of Figures 2 through 7.2, which are attached to this report, SoundEarth referenced one or more of the following sources of information: as-built utility maps (City of Mountlake Terrace 2005), Herman Short Plat No. 106 (Reisdorff 1985), Snohomish County Assessor maps (Snohomish County Assessor's Office 2009, facility drawings (Time Oil Company [sic] 1975), maps prepared by previous consultants (Landau 2005), and recent aerial photographs (USGS 2002). The base map for Figures 2 through 7.2 was prepared in 2012 by Axis Survey & Mapping, professional land surveyors of Kirkland, Washington.

The monitoring event included measuring depth to groundwater and collecting groundwater samples from wells MW02 through MW06, MW08 through MW13, MW15, MW16, MW18 through MW20, MW23, MW24, MW26, MW27, MW29 through MW70, MW75 through MW82, and MW84 through MW101. Monitoring wells MW21, MW22, MW25, and MW28 were inaccessible due to construction

activities (Figure 3). The scope of work included collection and analysis of 73 groundwater samples and 7 quality assurance/quality control (QA/QC) samples, and analysis of one trip blank.

This report presents a description of field activities performed during the monitoring event, laboratory analytical results, and a description of upcoming work. First Quarter 2012 groundwater elevations and sample analytical results are summarized on Table 1. Historical groundwater elevations and sample analytical results from June 1992 through March 2012 are presented in Table 2. Fuel additive analytical results from September 2005 through March 2012 are presented on Table 3. The results of First Quarter 2012 QA/QC sample analysis are presented on Table 4.

FIELD ACTIVITIES

Upon arrival at the Interim Remedial Action Project Area on March 5, 2012, SoundEarth personnel opened the existing monitoring wells. Water levels were permitted to equilibrate with atmospheric pressure prior to recording depth-to-liquid-level measurements on March 5 and 6, 2012. SoundEarth measured and recorded groundwater levels relative to the top of well casing to an accuracy of 0.01 feet using an electronic water level meter or an oil/water interface probe. SoundEarth personnel recorded the depth to liquid level in monitoring well MW24 using each of the water level meters and interface probes used during the monitoring event. The depth-to-liquid-level measurements shown on Table 2 have been corrected for differences between instruments based on the measurements recorded for monitoring well MW24 (maximum 0.09 feet). Whenever separate-phase hydrocarbons (LNAPL) were encountered, SoundEarth used an interface probe to measure the depth to LNAPL and the depth to groundwater.

LNAPL depresses the groundwater table as a function of specific gravity. In cases where LNAPL conditions were documented, the groundwater elevations shown on Table 2 were calculated using the following equation, which assumes a specific density of 0.8 for LNAPL relative to 1.0 for water:

Groundwater Elevation =
$$[(H_{TOC} - H_W) * 1.0] + [(H_W - H_{LNAPL}) * 0.8]$$

where H_{TOC} is the top of casing elevation, H_W is the measured depth to groundwater below the top of casing, and H_{LNAPL} is the measured depth to LNAPL below the top of casing.

Peristaltic pumps are the default, low-flow sample collection method at the Interim Remedial Action Project Area, but are ineffective for collection of samples deeper than approximately 31 feet. Because depths to groundwater exceed 31 feet in over half of the monitoring wells at the Interim Remedial Action Project Area, SoundEarth considered the advantages and disadvantages of the following sampling methods:

- Peristaltic pumps and dedicated tubing collect representative low turbidity samples, pose the least risk of sample cross-contamination, and meet the criteria for low-flow protocols (EPA 1996) but are limited to collection of samples shallower than approximately 31 feet.
- Disposable bailers are not depth-limited and do not pose any greater risk of cross-contamination than peristaltic pumps but retrieve turbid samples and potentially volatilize petroleum hydrocarbons, resulting in overstated or understated petroleum hydrocarbon concentrations compared to samples collected in accordance with low-flow protocols.

- Bladder pumps and submersible pumps are not depth-limited and retrieve representative low turbidity samples but pose risks for sample cross-contamination because each sample contacts the interior of the pump, requiring extensive decontamination between samples.
- The use of submersible pumps to collect groundwater samples from the Intermediate Zone is precluded by insufficient groundwater recharge rates, insufficient water column heights, and/or the potential to entrain pump-damaging levels of turbidity. Submersible pumps are feasible for sampling Deep Zone monitoring wells, but so are bailers and bladder pumps. Furthermore, historical analytical results indicated that purging and sampling Deep Zone monitoring wells by bailer method would be protective of the project data quality objectives.

Therefore, SoundEarth decided to restrict the number of sampling methods to three (peristaltic pump, bladder pump, and bailer) and elected not to use a fourth sampling method (submersible pumps).

On March 6 through 9, 2012, SoundEarth collected groundwater samples from each of the wells in accordance with the following methods, protocols, and rationale:

- In general, whenever depths to groundwater were shallower than approximately 31 feet bgs, SoundEarth collected groundwater samples in accordance with low-flow protocols using a peristaltic pump (monitoring wells MW02 through MW06, MW08 through MW10, MW12, MW18, MW19, MW20, MW24, MW27, MW29, MW32, MW34, MW37, MW38, MW54, MW61, MW62, MW67, MW68, MW79, MW80, MW82, and MW88). One Upper Intermediate Zone monitoring well with groundwater shallower than 31 feet bgs was sampled using a disposable polyethylene bailer (monitoring well MW100).
- In wells where depths to groundwater exceeded approximately 31 feet bgs, SoundEarth collected samples using bottom-loading bladder pumps in accordance with low-flow protocols (monitoring wells MW49, MW55, MW56, MW58 through MW60, MW63, MW65, MW66, MW75, and MW89), or disposable polyethylene bailers under the following circumstances:
 - Historical analytical results indicated that elevated turbidity associated with bailing likely would not result in detectable concentrations of petroleum hydrocarbons in groundwater samples (monitoring wells MW26, MW30, MW36, MW39, MW40, MW50, MW51, MW53, MW64, MW76, MW77, MW78, MW81, and MW87).
 - For collection of groundwater samples from wells that had been converted for impending use as remediation wells, and where LNAPL was not encountered (monitoring wells MW15, MW31, MW57, MW69, MW70, MW91 through MW99, and MW101).
 - Historical analytical results exceeded their respective cleanup levels to an extent that sampling method would have no bearing on the status of contamination or interpretation of the extent of contamination in groundwater collected from monitoring well MW48.
- In order to evaluate the effects of sample method on data quality, SoundEarth collected one sample and three QA/QC samples from monitoring well MW09 in the following order: (1) peristaltic pump, (2) blind field duplicate by peristaltic pump, (3) method duplicate by bladder pump, and (4) method duplicate by bailer. SoundEarth collected field duplicate samples from monitoring wells MW20, MW81, and MW86 using a peristaltic pump, bailer, and bladder pump, respectively. SoundEarth also collected a sample and QA/QC sample from monitoring well

MW49 using a bladder pump and bailer, respectively. The results of method duplicate sampling are discussed in the Data Quality Review section of this report, summarized in Table 4, and compared in Chart 1.

- The following monitoring wells were either dry, or insufficient water was present for sample collection: MW11, MW13, MW16, MW23, MW33, MW35, MW41 through MW47, and MW52. The sampling method used to collect each sample is indicated on Tables 1 and 4 with the sample analytical results.
- Groundwater samples were not collected where LNAPL conditions were encountered (monitoring well MW90).

Purging and sampling with a peristaltic pump was performed using dedicated polyethylene tubing at flow rates ranging from 80 to 230 milliliters per minute. The tubing intake was placed approximately 2 to 3 feet below the surface of the groundwater in each monitoring well. Purging and sampling with a bottom-loading bladder pump was performed using disposable polyethylene tubing at flow rates ranging from 92 to 310 milliliters per minute. Bladder pumps were suspended approximately 2 to 3 feet below the surface of the groundwater or at least 1 foot above the bottom of each monitoring well.

When purging and sampling in accordance with low-flow protocols, SoundEarth monitored water quality using a YSI ProPlus or YSI Model 556 water quality meter equipped with a flow-through cell. The water quality parameters that were monitored and recorded included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Following purging and stabilization of water quality parameters, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into laboratory-prepared sample containers.

Purging and sampling with disposable bailers required the removal of at least three well volumes to purge each monitoring well prior to sampling. Water quality parameters were not monitored during purging and sampling with bailers. Upon removal of at least three well volumes of groundwater, water samples were discharged from the bailer directly into laboratory-prepared sample containers. Fewer than three well volumes were purged from the following wells prior to collecting a groundwater sample:

- Monitoring well MW15 bailed dry upon removal of one well-volume of groundwater, was allowed to recharge, and was sampled later the same day.
- Monitoring wells MW50, MW53, MW57, and MW96 bailed dry upon removal of two well-volumes of groundwater, were allowed to recharge, and were sampled later the same day.
- Monitoring well MW36 bailed dry upon removal of two well-volumes of groundwater, was allowed to recharge overnight, and was sampled the next day.

Each set of sample containers was labeled with a unique sample identification number, placed on ice in a cooler, and transported to Friedman & Bruya, Inc. of Seattle, Washington, under standard chain-of-custody protocols for laboratory analysis. The groundwater samples were submitted for analysis of gasoline-range petroleum hydrocarbons (GRPH) by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Gx and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by U.S. Environmental Protection Agency (EPA) Method 8021B. The groundwater samples collected from monitoring wells MW31, MW65, MW69, MW70, MW76 through MW78, MW84 through MW87, MW89,

MW95 through MW99, and MW101 were analyzed for methyl tertiary-butyl ether (MTBE) and 1,2-dichloroethane (EDC) by EPA Method 8260C. In addition, samples collected from monitoring wells MW31, MW60, MW75, MW85, and MW91 through MW99 through MW101 were analyzed for dissolved and total lead by EPA Method 200.8. SoundEarth field-filtered samples intended for dissolved lead analysis using disposable 0.45 micron filters. Purge water generated during this sampling event was placed in labeled 55-gallon steel drums and temporarily stored on the TOC Property pending receipt of analytical data and proper disposal.

Sampling activities conducted within the 56th Avenue ROW were performed in accordance with an approved traffic control plan.

RESULTS

Groundwater levels measured on March 5 and 6, 2012, ranged from 10.56 feet (Shallow Zone monitoring well MW61) to 45.45 feet (Intermediate Zone monitoring well MW92) below the top of the well casings (Table 2). Groundwater elevations from the monitoring wells were contoured using the water level measurements collected on March 5 and 6, 2012 (Figures 5.1, 5.2, and 5.3).

During the First Quarter 2012 monitoring event, the overall directions of groundwater flow within the Shallow and Deep Zones generally trended south-southeast, while groundwater appears mounded within the Intermediate Zone (Figures 5.1, 5.2, and 5.3) across the following elevation ranges:

- Shallow Zone groundwater elevations ranged from 351.31 feet (monitoring well MW05) to 340.64 feet (monitoring well MW79). There is no evidence of groundwater mounding in the Shallow Zone in the vicinity of the former stormwater infiltration pit (Figure 5.1).
- Intermediate Zone groundwater elevations ranged from 338.03 feet (monitoring well MW90) to 310.86 feet (monitoring well MW85). Groundwater mounds within the Intermediate Zone between approximately 312 feet (monitoring wells MW56, MW59, and MW93) and 337 to 338 feet (monitoring wells MW09, MW32, MW90, and MW91), as characterized by the following conditions:
 - The 26-foot high mound is centered beneath the southern end of the former UST excavation (Figure 5.2).
 - The range of groundwater elevations observed in the mounded portion of the Intermediate Zone (elevations 312 to 338 feet) approaches the range of elevations in the Shallow Zone (elevations 340 to 345 feet). The mounded conditions are attributed to leakage from the Shallow Zone into the Intermediate Zone where the confining conditions between the two layers have been breached (e.g., by the former UST excavation).
 - The flattening of the groundwater gradient south of the TOC Property (such as the flattening between monitoring wells MW31 and MW59, MW31 and MW56, MW20 and MW92, and MW53 and MW60) signifies the apparent southern limits of the mounded conditions.
- Beyond the apparent limits of the mounded groundwater conditions the Intermediate Zone groundwater table flattens; groundwater elevations ranged from 312.92 feet immediately south of the TOC Property in monitoring well MW56 to 310.76 feet at the Drake Property, in monitoring well MW86 (Figure 5.2). The location of monitoring well MW16 relative to the

northern limits of the mounded groundwater conditions is not readily apparent because groundwater was not encountered in monitoring well MW16 during First Quarter 2012. Historically the groundwater elevations observed in monitoring well MW16 north of the TOC Property have appeared to be consistent with the range of elevations observed beyond the southern apparent limits of the mounded groundwater conditions.

Deep Zone groundwater elevations ranged from 316.38 in monitoring well MW26 to 313.09 feet in monitoring well MW78 (Figure 5.3). The range of groundwater elevations observed in the Deep Zone equilibrate at higher elevations than the range of elevations observed in the Intermediate Zone outside the area where mounded groundwater conditions exist, even though the Deep Zone monitoring wells are screened at greater depth intervals than the Intermediate Zone monitoring wells. During First Quarter 2012, an upward vertical gradient of 2.83 feet was measured between Intermediate Zone monitoring well MW63 and Deep Zone monitoring well MW64. Similarly, a vertical upward gradient of 2.31 feet was recorded between Intermediate Zone monitoring well MW77 (elevation 310.78 feet) and Deep Zone monitoring well MW78 (elevation 313.09 feet). These conditions signify confined or semiconfined conditions within the Deep Zone and substantiate evidence of an aquitard between the two water-bearing zones.

The following monitoring wells potentially intersect both Intermediate and Shallow Zones: MW08, MW24, MW27, MW29, MW37, and MW38. During the First Quarter 2012 monitoring event, groundwater elevation data associated with those wells were consistent with the Shallow Zone groundwater elevations. Therefore, groundwater elevation data associated with those wells were disregarded in the calculation of First Quarter 2012 groundwater contours for the Intermediate Zone. SoundEarth calculated the following hydraulic gradients for each zone:

- Hydraulic gradients in the Shallow Zone range from 0.033 feet per foot between wells MW06 and MW79 to 0.063 feet per foot between wells MW03 and MW19, toward the southsoutheast, perpendicular to the groundwater contours.
- The hydraulic gradient in the Intermediate Zone outside the mounded conditions is approximately 0.011 feet per foot between wells MW92 and MW69, toward the south-southeast, perpendicular to the groundwater contours.
- Hydraulic gradients within the mounded portion of the Intermediate Zone range up to 0.44 feet per foot between wells MW32 and MW94, perpendicular to the groundwater contours.
- The hydraulic gradient in the Deep Zone is 0.008 feet per foot between wells MW26 and MW78, perpendicular to the groundwater contours.

The spatial relationships between the ground surface, the network of underground utilities, and the three water-bearing zones are illustrated on Figure 4, which is a CAD illustration that was prepared using ArcGIS 3D Analyst software (version 9.3.1) and Surfer software (version 8.2). The Shallow Zone and Deep Zone nominally parallel the ground surface, which slopes downhill to the south across grades of 0.024 feet per feet (2.4 percent). The apex of mounded groundwater conditions in monitoring wells MW09, MW32, MW90, and MW91 approaches the elevation range of the Shallow Zone, suggesting that the Shallow Zone recharges the Intermediate Zone in the close vicinity of the former UST excavation. The mounded portion of the Intermediate Zone descends more steeply from the apex toward the west, east, and south than the Shallow Zone and Deep Zone descend toward the south. Intermediate Zone

groundwater gradients flatten south of the TOC Property but continue to descend toward the south below the elevations at which the semiconfined Deep Zone equilibrates. Due to semiconfinement, the Deep Zone appears shallower than the Intermediate Zone south of the TOC/Farmasonis Property.

Although groundwater elevation data for monitoring wells MW08, MW24, MW27, MW29, MW37, and MW38 were excluded from calculation of Intermediate Zone groundwater contours, groundwater analytical results for those wells are considered representative of Intermediate Zone conditions for the purpose of evaluating the lateral distribution of petroleum hydrocarbons. Specifically, monitoring wells where petroleum hydrocarbons have never been detected (monitoring wells MW37 and MW38) define the northeast lateral extent of contamination in the Intermediate Zone, regardless of groundwater elevation. Furthermore, in cases where petroleum hydrocarbons are detected in Intermediate Zone wells, historical maximum concentrations of petroleum hydrocarbons coincide with deeper groundwater elevations (monitoring wells MW08, MW24, MW27, and MW29) that are consistent with the hypothesis that the Intermediate Zone remains the primary zone of contaminant transport. Laboratory analytical results from the monitoring event indicated the following (Tables 1, 2, 3 and 4, Figures 6.1, 6.2, 7.1, and 7.2):

Shallow Zone

- GRPH and BTEX were not detected in groundwater samples collected from monitoring wells MW02, MW03, MW06, MW19, and MW34 at the TOC Property; MW54 and MW79 at the TOC/Farmasonis Property; MW12, MW61, and MW62 in the ROW; and MW67 and MW68 at the Drake Property.
- GRPH and benzene were not detected in groundwater samples collected from monitoring wells MW04 and MW05 in the ROW.
- Ethylbenzene was detected below the cleanup level in the groundwater sample collected from monitoring well MW04 and was not detected in the groundwater sample collected from monitoring well MW05.
- Total xylenes were detected below the cleanup level in the groundwater sample collected from monitoring well MW05 and were not detected in the groundwater sample collected from monitoring well MW04.

Intermediate Zone

- LNAPL conditions were observed at the TOC Property in well MW90 at an elevation of 338.03 feet (0.09 feet thick).
- Concentrations of GRPH exceeded the cleanup level in monitoring wells MW09, MW10, MW15, MW18, MW20, MW24, MW27, MW29, MW31, MW48, MW57, MW69, MW91, and MW98.
- Concentrations of benzene exceeded the cleanup level in monitoring wells MW09, MW10, MW18, MW20, MW24, MW27, MW31, MW48, MW57, MW70, MW91, MW97, and MW98.
- Concentrations of ethylbenzene exceeded the cleanup level in monitoring well MW48.

- Concentrations of total xylenes exceeded the cleanup level in monitoring wells MW09, MW10, MW27, MW48, and MW91.
- Concentrations of GRPH and BTEX either were not detected or were below the cleanup level in groundwater samples collected from monitoring wells MW08, MW32, MW36 through MW38, MW49, MW50, MW51, MW53,MW55, MW56, MW58 through MW60, MW63, MW65, MW66, MW75 through MW77, MW81, MW84 through MW89, MW92 through MW96, MW99, and MW101.
- Concentrations of total lead exceeded the cleanup level in monitoring wells MW31, MW91, MW100, and MW101. The dissolved lead concentration in the sample collected from monitoring well MW31 was nominally lower than the total lead concentration, suggesting that the source of lead in groundwater at MW31 is not attributable to sample turbidity. Dissolved lead was not detected in the groundwater samples collected from monitoring wells MW91 and MW101, and accounted for less than 3 percent of the total lead detected in the groundwater sample collected from monitoring well MW100, suggesting that the total lead concentrations at those locations are attributable to sample turbidity.
- Concentrations of total lead either were not detected or were below the cleanup level in monitoring wells MW60, MW75, MW85, and MW92 through MW99.
- Concentrations of the fuel additives MTBE and EDC were not detected in any of the groundwater samples collected from monitoring well MW31 at the TOC/Farmasonis Property or in the following wells at the Drake Property: MW65, MW69, MW70, MW76 through MW78, MW84 through MW87, and MW89. MTBE has been detected in Intermediate Zone groundwater samples collected south and downgradient of the Drake Property, and EDC has been detected below the cleanup level in Intermediate Zone wells located north of and upgradient from the Drake Property.

The subsurface distributions of GRPH and benzene in Intermediate Zone groundwater are illustrated on Figures 6.1 and 6.2, respectively, in relation to surface features and approximate property boundaries. Figures 7.1 and 7.2 superimpose those distributions onto the surface of the Intermediate Zone groundwater table featured on Figure 4. These illustrations were prepared using ESRI ArcGIS 3D Analyst software (version 9.3.1) and Rockware Surfer software (version 8.2) to map three-dimensional surfaces according to the methods described in Attachment A.

Actual concentrations may vary from those illustrated on Figures 6.1, 6.2, 7.1, and 7.2 due to lithology, stratigraphy, well screen interval depths, and/or spacing between individual monitoring wells.

Deep Zone

- Concentrations of GRPH and BTEX were not detected in groundwater samples collected from the Deep Zone monitoring wells MW26, MW30, MW39, MW40, MW64, and MW78.
- MTBE and EDC were not detected in the groundwater sample collected from monitoring well MW78.

DATA QUALITY REVIEW

The scope of groundwater monitoring included the collection and laboratory analysis of 73 groundwater samples and 8 QA/QC samples. SoundEarth performed a QA/QC review of the analytical results, which included a review of accuracy and precision of the data supplied by the laboratory. The QA/QC program for this sampling event included collection and analysis of the following samples:

- The laboratory prepared three trip blanks for this sampling event. The trip blank that accompanied samples collected from the Drake Property (Trip Blank-24309) was submitted for analysis of GRPH by Method NWTPH-Gx, BTEX by EPA Method 8021B, and MTBE and EDC by EPA Method 8260C.
- SoundEarth collected field duplicate sample MW999-20120307-PE from monitoring well MW09. SoundEarth submitted this sample for analysis by GRPH and BTEX analysis by Method NWTPH-Gx and EPA Method 8021B, respectively. The sample and the field duplicate sample were collected using the same equipment (peristaltic pump).
- SoundEarth collected samples and method duplicate samples from monitoring wells with the objective of comparing the effect(s), if any, of sample method on the variability of analytical results:
 - MW09 using a peristaltic pump, a bladder pump, and a bailer (sample MW09-20120307-PE, and method duplicate samples MW09-20120307-BL and MW09-20120307-BA). SoundEarth submitted all three samples for GRPH and BTEX analyses.
 - MW20 using a peristaltic pump (sample MW20-20120309-PE and method duplicate sample MW20-20120309-PE2). SoundEarth submitted both samples for GRPH and BTEX analyses.
 - MW49 using a bladder pump and a bailer (sample MW49-20120308-BL and method duplicate sample MW49-20120308-BA). SoundEarth submitted both samples for GRPH and BTEX analyses.
 - MW81 using a bailer (sample MW81-20120306-BA and method duplicate sample MW81-20120306-BA2). SoundEarth submitted both samples for GRPH and BTEX analyses.
 - MW86 using a bladder pump (sample MW86-20120306-BL and method duplicate sample MW86-20120306-BL2). SoundEarth submitted both samples for GRPH and BTEX analyses; sample MW86-20120306-BL was also analyzed for MTBE and EDC.

Analytical results for field quality assurance samples are summarized on Table 4. In the event that a QA/QC result for any COC exceeded the sample result, and the QA/QC sample was collected using the same method as the sample, then the higher of the two values is reported on Table 1 and 2; however, if the sample collection methods differed then the primary sample results are reported on Tables 1 and 2, regardless of the QA/QC analytical result. Analytical results for laboratory quality assurance samples are included in the laboratory analytical reports which are appended to this report (Attachment B). The results of the QA/QC review indicated the following:

 GRPH, BTEX, MTBE, and EDC were not detected in the trip blank associated with the groundwater samples collected from the Drake Property. Laboratory trip blanks serve as an indicator of the integrity of sample handling and shipping procedures.

- The relative percent difference calculations (RPD) for each analyte that was detected were within acceptable limits for the field duplicate samples collected from monitoring wells MW09, MW20, and MW86. Analytes were not detected in groundwater samples collected from monitoring wells MW49 and MW81; therefore, RPDs could not be calculated for those QA/QC samples. The field duplicate sample RPD serves as a measure of the reproducibility of sampling and analysis procedures.
- GRPH and BTEX detection limits for groundwater samples collected from monitoring wells MW09, MW20, MW27, and MW91 were elevated because of sample dilution. However, each of the GRPH and BTEX concentrations for these groundwater samples exceeded the elevated laboratory detection limits. Therefore, the analytical results for the groundwater samples and field duplicates are considered usable to meet the objectives of the First Quarter 2012 monitoring event.
- The benzene detection limit for the groundwater samples collected from monitoring well MW15 was elevated because of sample dilution. However, the elevated benzene detection limit equals the cleanup level of 5 micrograms per liter (μg/L), and benzene was not detected above the cleanup level. Therefore, the analytical results for the groundwater samples and field duplicates are considered usable to meet the objectives of the First Quarter 2012 monitoring event.
- The toluene detection limits for the groundwater samples collected from monitoring wells MW15 and MW18 were elevated because of sample dilution. However, the elevated toluene detection limits of 10 μg/L and 5 μg/L, respectively, are below the cleanup level of 1,000 μg/L, and toluene was not detected in either sample. Therefore, the analytical results for the groundwater samples and field duplicates are considered usable to meet the objectives of the First Quarter 2012 monitoring event.
- The total xylenes result for monitoring well MW48 exceeded the calibration range of the instrument. The laboratory flagged the total xylenes result with the following data qualifier: "Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte." The groundwater sample collected from monitoring well MW48 contains concentrations of GRPH, benzene, toluene, and ethylbenzene well above their respective cleanup levels; the estimated total xylenes concentration is consistent with the GRPH, benzene, toluene, and ethylbenzene results and is considered usable to meet the objectives of the First Quarter 2012 monitoring event.
- The laboratory flagged the quality assurance results for the analysis of water samples for dissolved metals by EPA Method 200.8 with the following data qualifier: "The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful." The matrix spike and matrix spike duplicate results for this project were within the stated range of acceptance criteria. The level of meaningfulness of laboratory quality assurance results for the dissolved metals test method does not compromise the data quality objectives of this sampling event.
- The analytical results for the sample method duplicates (Table 4) indicated the following:

- Sampling by bailer resulted in understated GRPH and BTEX concentrations in groundwater (method duplicate sample MW09-20120307-BA), compared to low-flow methods (sample MW09-20120307-PE and method duplicate sample MW09-20120307-BL).
- Sampling by peristaltic pump (sample MW09-20120307-PE and field duplicate sample MW999-20120307-PE) resulted in nominally understated GRPH and BTEX concentrations in groundwater, compared to sampling by bladder pump (method duplicate samples MW09-20120307-BL).
- The GRPH concentration in the groundwater sample collected by bladder pump (MW09-20120307-BL) was 4.6 times higher than the GRPH concentration in the sample collected by bailer (MW09-20120307-BA). The benzene concentration in the groundwater sample collected by bladder pump (MW09-20120307-BL) was 2.9 times higher than the benzene concentration in the sample collected by bailer (MW09-20120307-BA).
- In the case where GRPH and BTEX concentrations are below their respective laboratory reporting limits, the sampling method imparted no influence on the sample analytical results (sample MW49-20120308-BL and method duplicate sample MW49-20120308-BA).
- Low-flow criteria for turbidity were not achieved prior to collecting groundwater samples from monitoring wells MW59, MW75, MW84, and MW89, even though the wells were purged at minimum pump flow rates. Turbidity at the time of sample collection ranged from 13 to 60 NTU and final turbidity readings varied more than plus or minus 10 percent in each case. GRPH and BTEX were not detected in the groundwater samples collected from monitoring wells MW59, MW75, and MW89 even though the groundwater samples collected from those locations were slightly turbid; the reported concentrations of GRPH and/or BTEX in the groundwater sample collected from MW84 may be overstated or exaggerated due to elevated/unstable turbidity.
- Although low-flow criteria for stability of turbidity readings were met prior to collection of groundwater samples from monitoring wells MW02, MW09, MW49, MW56, MW60, MW65, and MW86, final turbidity readings ranged from 12 to 80 NTU. GRPH and BTEX were not detected in the groundwater samples collected from monitoring wells MW02, MW49, MW56, MW60, MW65, and MW89 even though the groundwater samples collected from those locations were slightly turbid; the reported concentrations of GRPH and/or BTEX detected in the groundwater samples collected from MW09 and MW86 may be overstated or exaggerated due to elevated turbidity.
- Monitoring wells MW15, MW31, MW36, MW50, MW51, MW53, MW57, and MW96 ran dry during purging upon or prior to removal of three well-volumes of groundwater. SoundEarth allowed the wells to recharge and collected samples the same day, except at monitoring well MW31, which recharged overnight prior to sampling. The groundwater analytical data associated with these wells should be qualified as screening results appropriate for assessing the presence or absence of petroleum hydrocarbons in groundwater as follows:
 - In wells where petroleum hydrocarbons are present (MW15, MW31, and MW57), concentrations of GRPH and BTEX may be understated due to excessive volatilization and/or overstated due to elevated turbidity. All three wells have been connected to the remediation system with the objective of improving groundwater quality at the Interim

Remedial Action Project Area, on the assumption that groundwater quality is impaired at those locations.

In wells where GRPH and BTEX are not detected (MW36, MW50, MW51, MW53, and MW96), the GRPH and benzene data are assumed to be representative of unimpaired groundwater quality, primarily because the groundwater cleanup levels for GRPH, BTEX, MTBE, and EDC are between 5 and 1,000 times their respective laboratory reporting limits.

The remaining QA/QC criteria are acceptable for the groundwater samples; therefore, no action is required and analytical results meet the project objectives. Copies of the laboratory analytical reports are provided in Attachment B.

CONCLUSIONS

SoundEarth draws the following conclusions from an evaluation of the data obtained during the First Quarter 2012 groundwater monitoring event:

- The overall directions of groundwater flow through the Shallow, Intermediate, and Deep Zones are toward the south–southeast. Although groundwater flow directions appear to radiate away from the center of the mounded groundwater conditions in the Intermediate Zone, the distribution of petroleum hydrocarbons in Intermediate Zone groundwater is consistent with the overall direction of groundwater flow toward the south and southeast.
- Mounded groundwater conditions within the Intermediate Zone appear to be centered beneath the southern end of the former UST excavation. The location and elevation of the mounded conditions, and the vertical and lateral distributions of petroleum hydrocarbons, support the working hypothesis that the former UST excavation cross-connects with the Shallow Zone and portions of the Intermediate Zone.
- The current conceptual model for the Interim Remedial Action Project Area assumes the following:
 - The former UST excavation intersects the Shallow Zone and granular strata within the Upper Intermediate Zone. Seasonal diminishment of saturated conditions within the Shallow Zone facilitates vertical downward migration of petroleum hydrocarbons into the Intermediate Zone where they become adsorbed to the soil formation. Seasonal recharge of the Shallow Zone traps and surcharges the adsorbed petroleum hydrocarbons. One basis for this working hypothesis is the former occurrence of LNAPL in monitoring well MW48, over 180 feet distant from the southern end of the former UST excavation, and at elevations between 308 and 312 feet, over 36 feet deeper than the bottom of the former UST excavation.
 - Intermittent saturation, soil adsorption, wicking, and anisotropic stratigraphy contribute to
 the lateral and downward vertical migration of petroleum hydrocarbons through the icemelt and water-laid glacial deposits of the Intermediate Zone, while the vertical upward
 gradient between the Intermediate Zone and Deep Zone inhibits the descent of petroleum
 hydrocarbons through the lower reaches of the Intermediate Zone.
 - The apparently separated plumes depicted on Figures 6.1 through 7.2 are connected laterally between the TOC Property and the Drake Property via a preferential pathway that meanders west of the TOC/Farmasonis Property beneath the 56th Avenue West ROW. This

working hypothesis is based on historical distributions of LNAPL in monitoring wells MW20, MW32, MW48, and MW90, which contrast with the apparent absence of a connecting plume beneath the TOC/Farmasonis Property (monitoring wells MW23, MW56, MW59, MW66, MW81, MW92, MW93, and MW94) and the opposite side of 56th Avenue West (monitoring wells MW08, MW50, MW52, MW53, MW55, MW60, and MW75). Consistent with the current hypothesis, and whenever groundwater volumes are sufficient to allow collection and analysis of samples from monitoring wells MW13 and MW45, elevated concentrations of GRPH and BTEX have been documented beneath the east margin of the 56th Avenue ROW between monitoring wells MW20, MW32, and MW48.

- The apparently separated plumes depicted on Figures 6.1 through 7.2 are connected laterally between the TOC Property and the Drake Property via a preferential pathway that meanders west of the TOC/Farmasonis Property beneath the 56th Avenue West ROW. This working hypothesis is based on historical distributions of LNAPL in monitoring wells MW20. MW32. MW48, and MW90, which contrast with the apparent absence of a connecting plume beneath the TOC/Farmasonis Property (monitoring wells MW23, MW56, MW59, MW66, MW81, MW92, MW93, and MW94) and the opposite side of 56th Avenue West (monitoring wells MW08, MW50, MW52, MW53, MW55, MW60, and MW75). Consistent with the current hypothesis, and whenever groundwater volumes are sufficient to allow collection and analysis of samples from monitoring wells MW13 and MW45, elevated concentrations of GRPH and BTEX have been documented beneath the east margin of the 56th Avenue ROW between monitoring wells MW20, MW32, and MW48. The extent of petroleum hydrocarbons in groundwater south of the Drake Property remains the focus of an on-going remedial investigation. Currently the southernmost line of Intermediate Zone monitoring wells is defined, from west to east, by wells MW52, MW75, MW51, MW89, MW84, MW86, MW85, MW77, and MW87. During First Quarter 2012, concentrations of GRPH were detected below the cleanup level in monitoring wells MW84 and MW86 (Figure 6.1). Concentrations of benzene were detected below their respective cleanup levels in monitoring wells MW85 and MW86 (Figure 6.2). Further remedial investigation of Intermediate Zone groundwater south and downgradient from monitoring wells MW84, MW85, and MW86 is pending.
- Based on an evaluation of the analytical results for method duplicate samples collected from monitoring well MW09 using a bladder pump, a peristaltic pump, and a bailer, all three sampling methods are protective of human health and the environment. It should be noted that the apparent correlation observed in First Quarter 2012 between sample collection method and COC concentration is not consistent with First Quarter 2010 QA/QC sample results; therefore the apparent correlation should not be applied to other sampling events. However, the combination of sampling methods is appropriate for compliance, performance, and screening purposes according to the following rationale:
 - Sampling method imparts no practicable distortion of the fingerprint of the BTEX constituents present (Chart 1); relative proportions of individual BTEX constituents detected in groundwater samples collected from monitoring well MW09, and normalized to total BTEX, varied 2 to 5 percent depending on the sampling method.
 - Bladder pumps appear to be the most conservatively protective sampling equipment for documenting compliance of GRPH and benzene concentrations with groundwater cleanup

levels. Therefore, around the western and southern perimeter of the monitoring well network, where demonstration of compliance is crucial, groundwater samples are collected using bladder pumps (monitoring wells MW55, MW60, MW75, MW84, MW85, MW86, and MW89).

- During First Quarter 2012 the results of sampling by bailer were understated 2.9 to 6.5 times compared to sampling by bladder pump, but the groundwater cleanup levels are between five and 1,000 times higher than the laboratory reporting limits for GRPH, BTEX, MTBE, and EDB. Of the seven constituents, benzene concentrations in samples collected by bailer are most susceptible to underreporting because the cleanup level for benzene is only five times the laboratory reporting limit. Across the majority of the Interim Remedial Action Project Area, the detection of the more prevalent constituents, ethylbenzene and/or total xylenes, in groundwater serves as a screening indicator for the potential presence of benzene. Therefore, the collection of groundwater samples using bailer and peristaltic pump methods is protective of human health and groundwater quality, even if the sampling method is associated with understated constituent concentrations.
- SoundEarth will continue to collect groundwater samples using bailers and peristaltic pumps for screening and performance monitoring purposes, use bladder pumps for crucial compliance purposes, and will also collect method duplicate samples for data qualification purposes.

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WORK PLANNED

In Second Quarter 2012 SoundEarth will conduct a limited groundwater monitoring event at the Interim Remedial Action Project Area in accordance with the IRAWP. The results will be presented in a groundwater monitoring summary report.

CLOSING

SoundEarth appreciates the opportunity to work with you on this project. Please contact the undersigned at (206) 306-1900 if you have any questions or require additional information.

Respectfully,

SoundEarth Strategies, Inc.

Deborah H. Gardner, LG #1243

Associate Geologist

Ryan K. Bixby, LG #1691 Environmental Division President



Deborah H. Gardner

Attachments:

Figure 1, Physiographic Setting

Figure 2, Property Location Map

Figure 3, Exploration Location Map

Figure 4, Elevation View of Water-Bearing Zones, March 6, 2012

Figure 5.1, Groundwater Contour Map, Shallow Zone, March 6, 2012

Figure 5.2, Groundwater Contour Map, Intermediate Zone, March 6, 2012

Figure 5.3, Groundwater Contour Map, Deep Zone, March 6, 2012

Figure 6.1, Concentrations of GRPH in Intermediate Zone Groundwater, March 2012

Figure 6.2, Concentrations of Benzene in Intermediate Zone Groundwater, March 2012

Figure 7.1, Elevation View of GRPH in Intermediate Zone Groundwater, March 2012

Figure 7.2, Elevation View of Benzene in Intermediate Zone Groundwater, March 2012

Table 1, Summary of First Quarter 2012 Groundwater Analytical Results Sorted by Water-Bearing Zone

Table 2, Summary of Historical Groundwater Analytical Results, June 1992 through March 2012

Table 3, Summary of Groundwater Analytical Results, Eight Common Fuel Additives

Table 4, Summary of Quality Assurance/Quality Control Analytical Results, First Quarter 2012

Chart 1, Influence of Sampling Method on Normalized Proportions of BTEX Constituents, First Quarter 2012, Monitoring Well MW09

A, Preparation of GRPH and Benzene Distribution Figures

B, Laboratory Analytical Reports

Friedman & Bruya, Inc. #203121

Friedman & Bruya, Inc. #203122

Friedman & Bruya, Inc. #203141

Friedman & Bruya, Inc. #203142

Friedman & Bruya, Inc. #203143

cc: Russ Olsen, Washington State Department of Ecology, Northwest Region

DHG/RKB:mdb/hsc





/MN 17½°

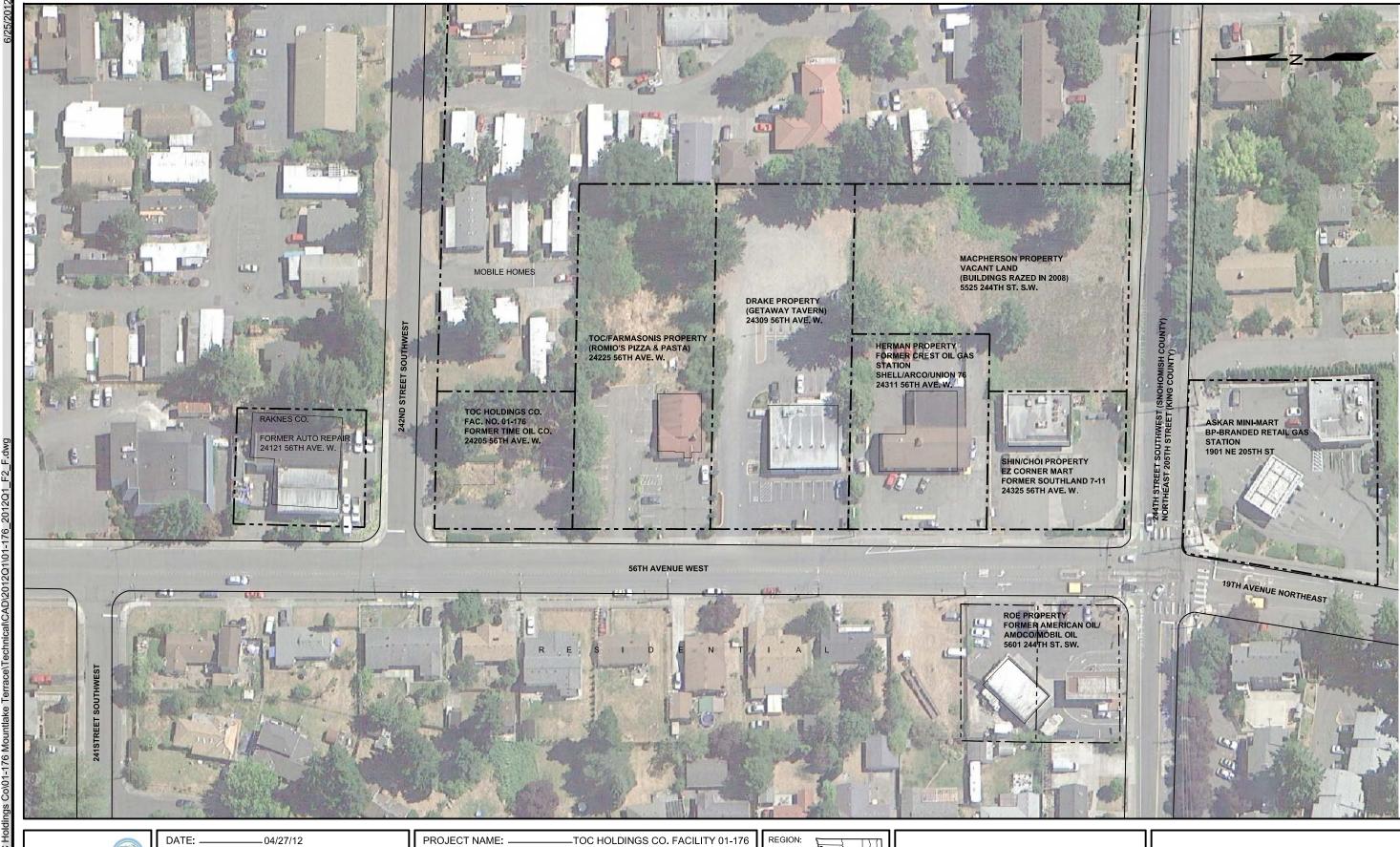
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122°24.000' W

NOT TO SCALE

FIGURE 1
PHYSIOGRAPHIC SETTING

WGS84 122°12.000' W



Strategies www.soundearthinc.com DRAWN BY: ______ JQC
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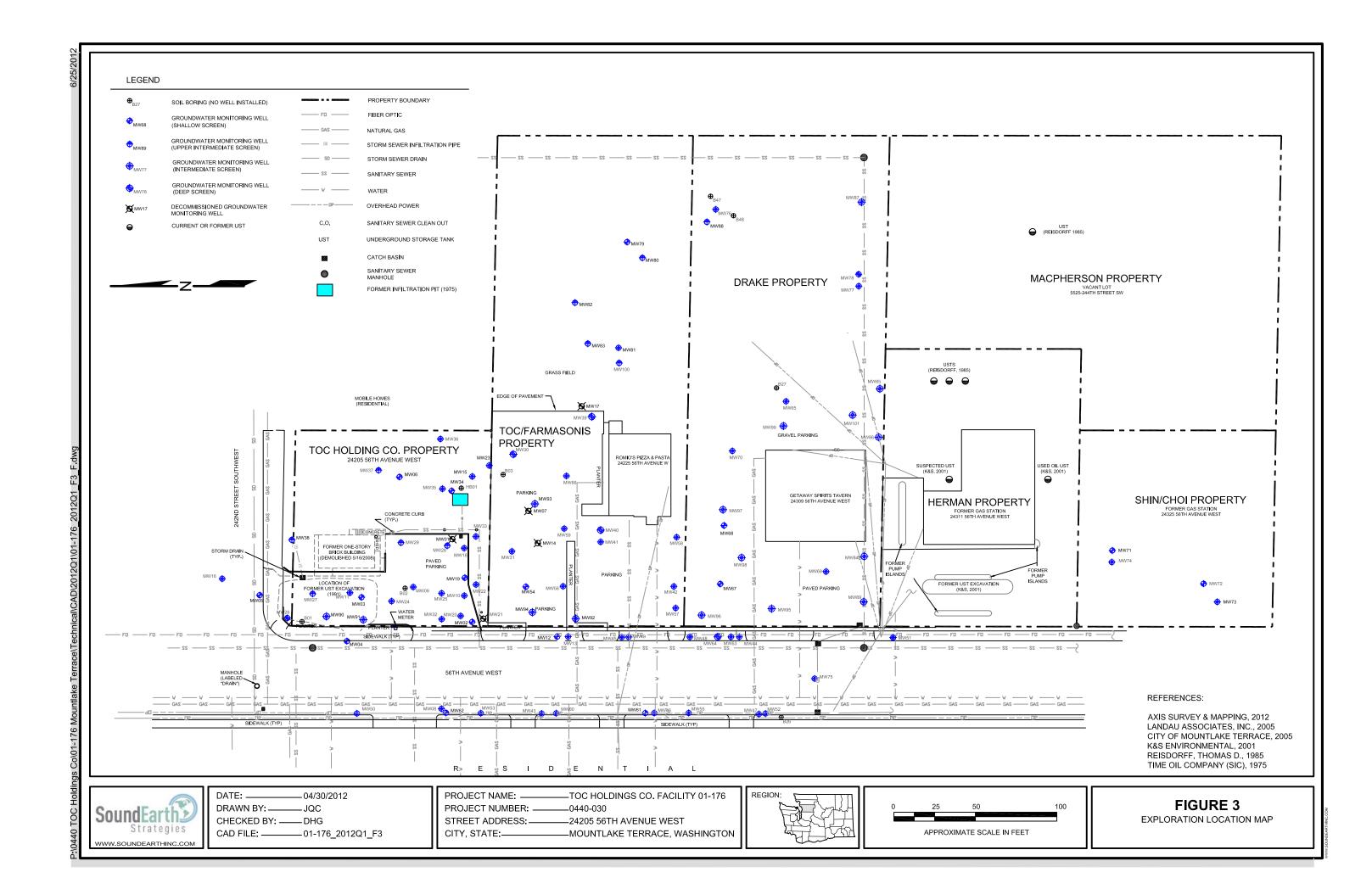
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PROJECT NUMBER: ____0440-030

STREET ADDRESS: _____24205 56TH AVENUE WEST CITY, STATE: ____MOUNTLAKE TERRACE, WASHINGTON

REGION:



FIGURE 2
PROPERTY LOCATION MAP



NOT TO SCALE

WATER-BEARING ZONES

MARCH 6, 2012

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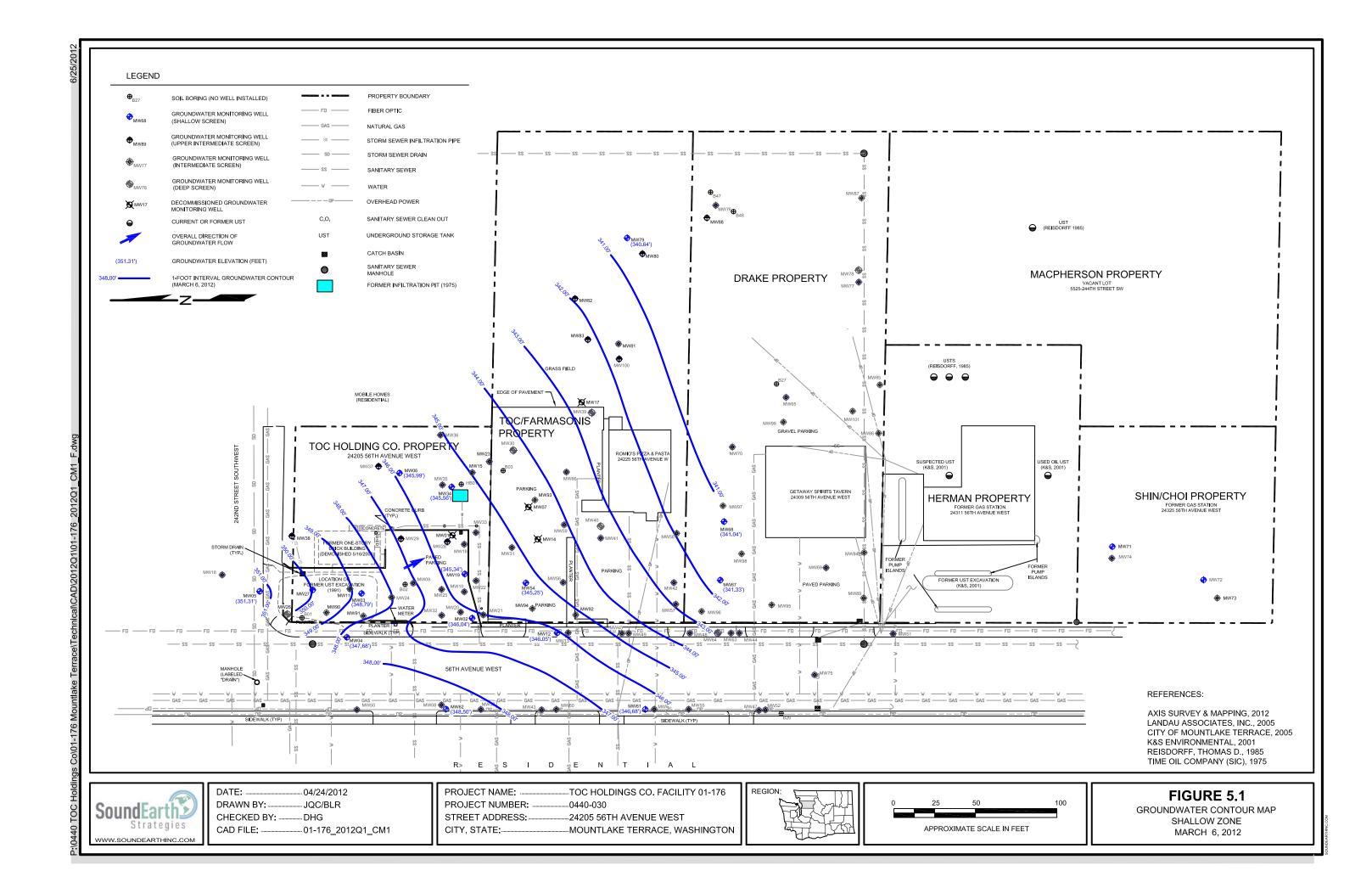
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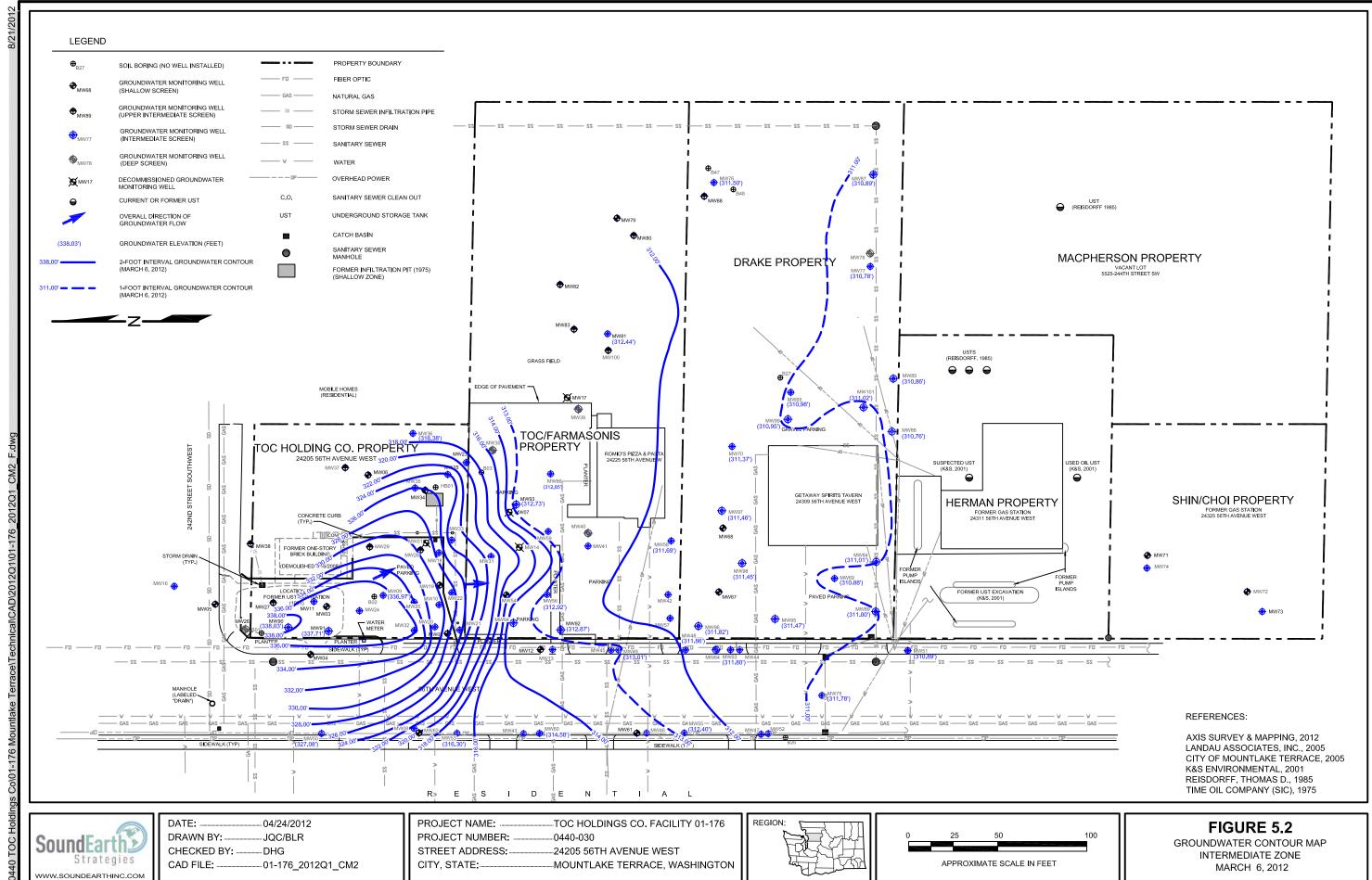
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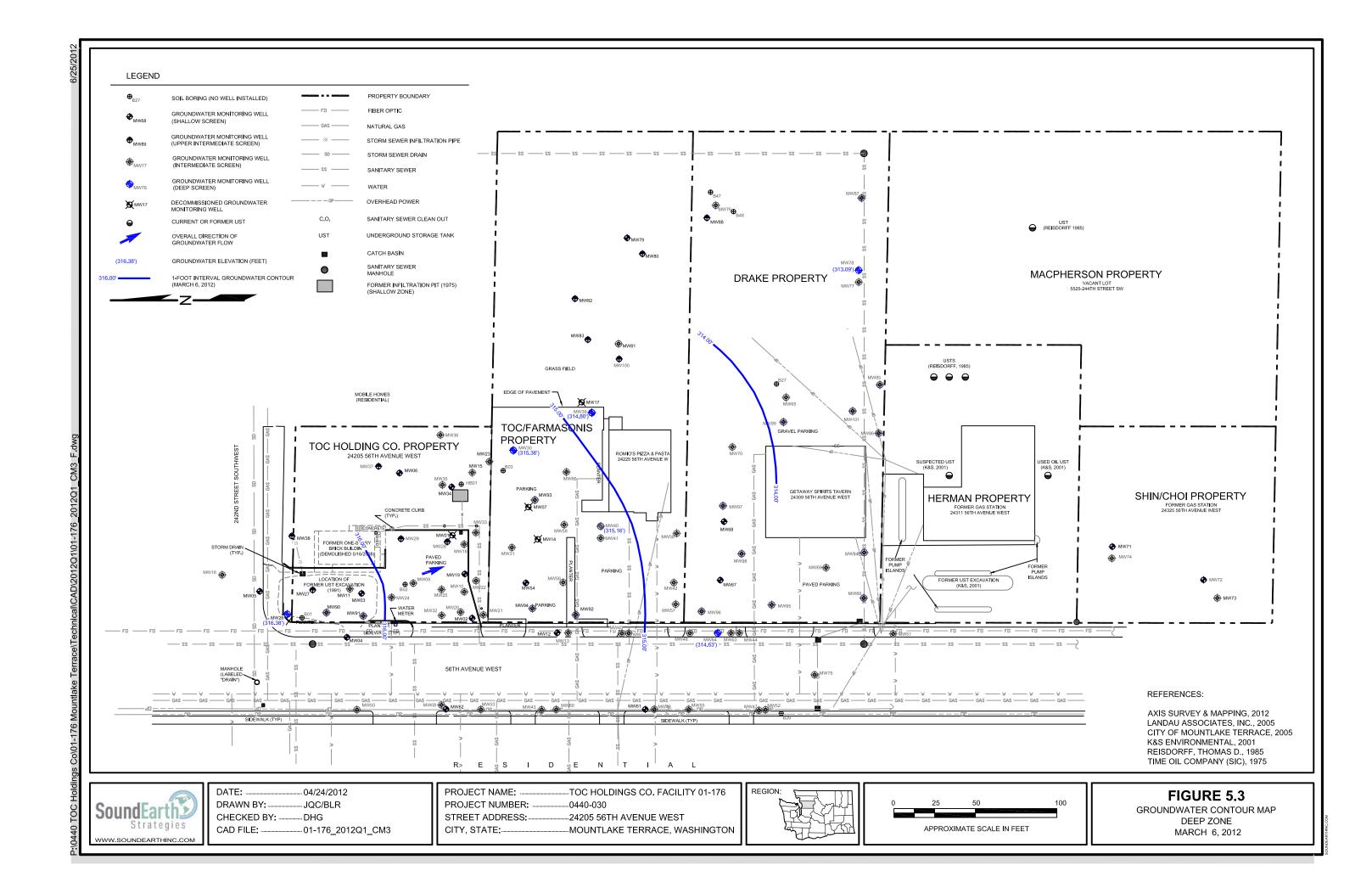
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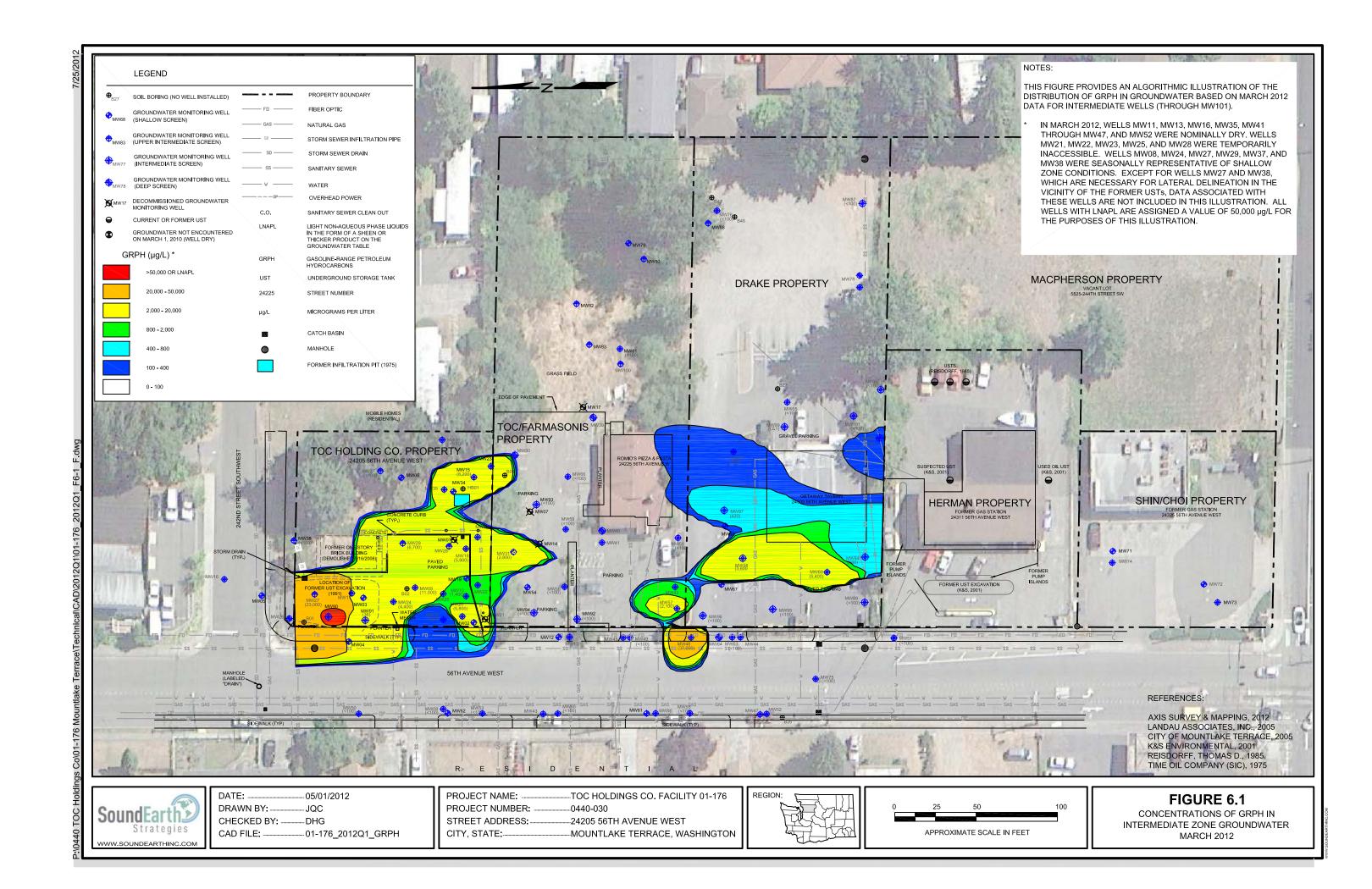
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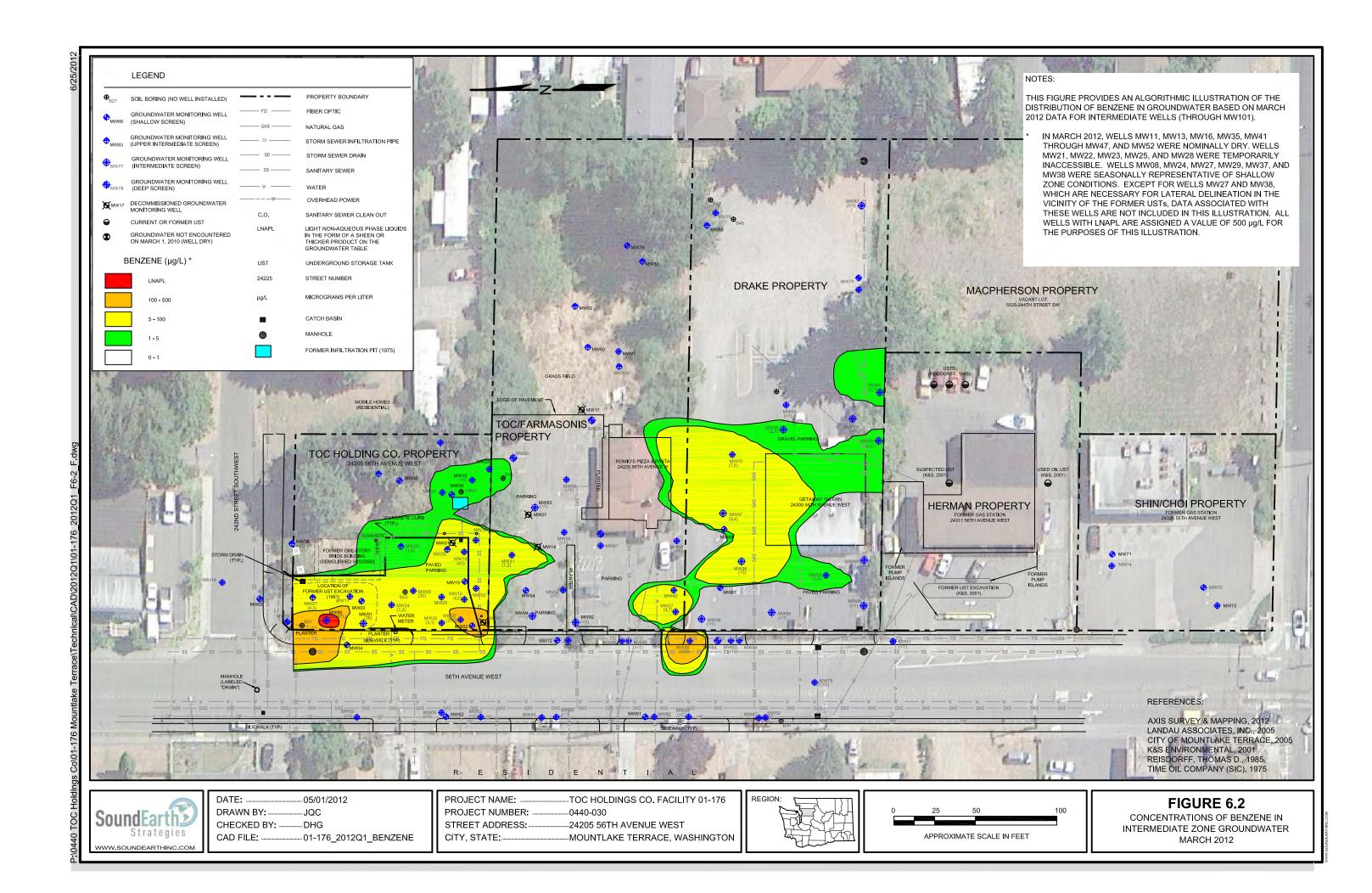
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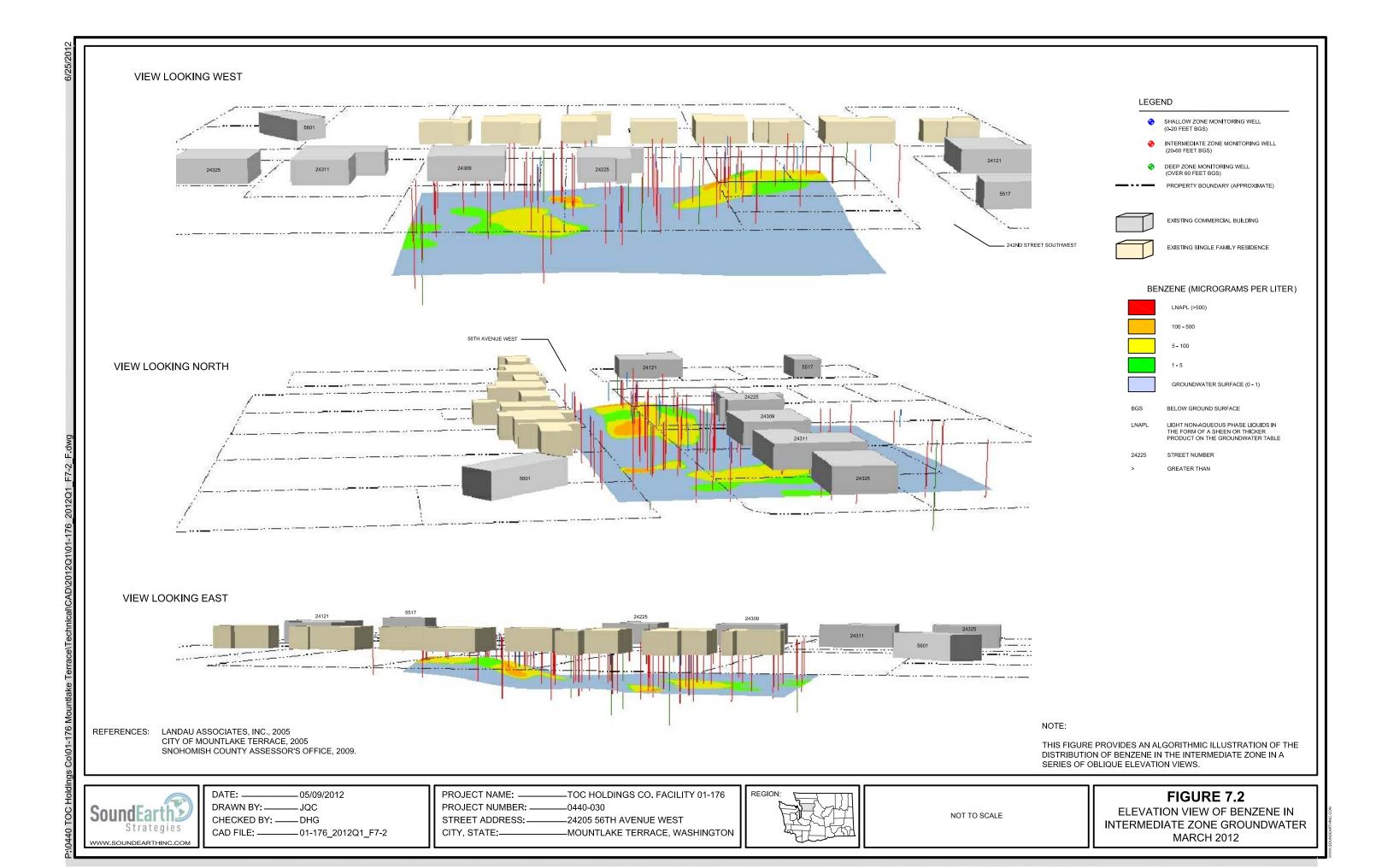
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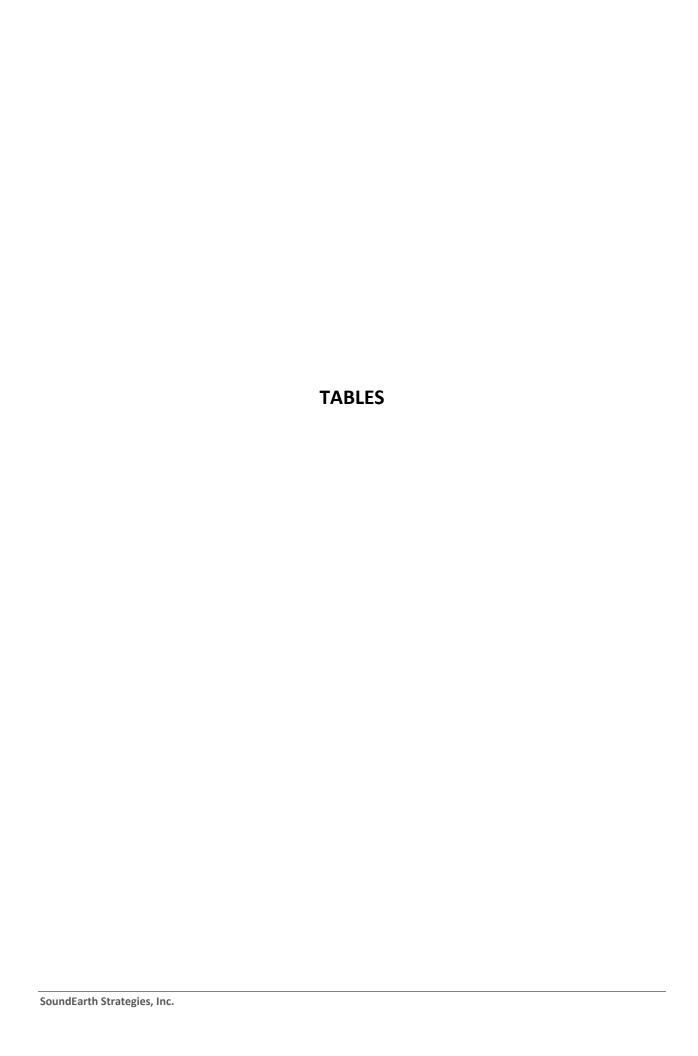
MARCH 2012

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CITY, STATE:-







Summary of First Quarter 2012 Groundwater Analytical Results Sorted by Water-Bearing Zone TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington

Well ID	Property Owner	Date	Sample Method	Groundwater Elevation (feet) ¹	GRPH ²	Benzene ³	Toluene ³	Ethyl- benzene ³	Total Xylenes ³	MTBE⁴	EDB ⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
					SHALLOW W	ATER-BEARING	S ZONE (0 TO 2	O FEET BGS)						
MW02	TOC	03/08/12	Peristaltic Pump	346.04	<100	<1	<1	<1	<3	-				
MW03	TOC	03/08/12	Peristaltic Pump	348.79	<100	<1	<1	<1	<3	-				
MW04	ROW (56th)	03/07/12	Peristaltic Pump	347.68	<100	<1	<1	1.5	<3	-			-	
MW05	ROW (242nd)	03/08/12	Peristaltic Pump	351.31	<100	<1	<1	<1	12					
MW06	TOC	03/08/12	Peristaltic Pump	345.99	<100	<1	<1	<1	<3					
MW12	ROW (56th)	03/08/12	Peristaltic Pump	346.05	<100	<1	<1	<1	<3					
MW19	TOC	03/09/12	Peristaltic Pump	345.34	<100	<1	<1	<1	<3					
MW34	TOC	03/09/12	Peristaltic Pump	345.56	<100	<1	<1	<1	<3					
MW54	TOC/Farmasonis	03/07/12	Peristaltic Pump	345.25	<100	<1	<1	<1	<3					
MW61	ROW (56th)	03/08/12	Peristaltic Pump	346.68	<100	<1	<1	<1	<3	-				
MW62	ROW (56th)	03/08/12	Peristaltic Pump	348.50	<100	<1	<1	<1	<3	-				
MW67	Drake	03/06/12	Peristaltic Pump	341.33	<100	<1	<1	<1	<3	-				
MW68	Drake	03/06/12	Peristaltic Pump	341.04	<100	<1	<1	<1	<3	-				
MW79	TOC/Farmasonis	03/07/12	Peristaltic Pump	340.64	<100	<1	<1	<1	<3					
				INTERME	DIATE ZONE W	ELLS THAT INT	ERSECT SHALL	OW ZONE CO	NDITIONS					
MW08	ROW (56th)	03/08/12	Peristaltic Pump	344.93	<100	<1	<1	<1	<3					
MW24	TOC	03/09/12	Peristaltic Pump	340.84	4,400	7.3	39	39	770					
MW27	TOC	03/09/12	Peristaltic Pump	343.24	23,000	8.5	94	620	3,900					
MW29	TOC	03/09/12	Peristaltic Pump	345.21	6,700	1.5	2.7	220	840					
MW37	TOC	03/08/12	Peristaltic Pump	339.56	<100	<1	<1	<1	<3					
MW38	TOC	03/08/12	Peristaltic Pump	345.17	<100	<1	<1	<1	<3					
UPPER INTERMEDIATE WATER-BEARING ZONE (20 TO 30 FEET BGS)														
MW80	TOC/Farmasonis	03/07/12	Peristaltic Pump	339.58	<100	<1	<1	<1	<3					
MW82	TOC/Farmasonis	03/07/12	Peristaltic Pump	327.07	<100	<1	<1	<1	<3					
MW88	Drake	03/06/12	Peristaltic Pump	336.76	<100	<1	<1	<1	<3					
MW100	TOC/Farmasonis	03/06/12	Bailer	340.08	<100	<1	<1	<1	<3	-			50.6	1.15
MTCA Metho	d A Cleanup Level ⁶	1,000/800ª	5	1,000	700	1,000	20	0.01	5	15	NE			



Summary of First Quarter 2012 Groundwater Analytical Results Sorted by Water-Bearing Zone TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington

				Groundwater Elevation				Ethvl-	Total				Total	Dissolved
Well ID	Property Owner	Date	Sample Method	(feet)1	GRPH ²	Benzene ³	Toluene ³	benzene ³	Xvlenes ³	MTBE⁴	EDB ⁴	EDC⁴	Lead ⁵	Lead ⁵
INTERMEDIATE WATER-BEARING ZONE (20 TO 60 FEET BGS)													Lead	
MW09	TOC	03/07/12	Peristaltic Pump	336.97	11,000	30	76	370	2,400					
MW10	TOC	03/07/12	Peristaltic Pump	330.52	1,400	62	7.3	27	89					
MW11	TOC	03/05/12	Not Sampled	Dry	Dry (Refer to Table 2 for Historical Data)									
MW13	ROW (56th)	03/05/12	Not Sampled	Dry				Dry (I	Refer to Table 2	2 for Historical	Data)			
MW15	TOC	03/08/12	Bailer	324.38	8,200	<5	<5	88	480					
MW16	ROW (242nd)	03/05/12	Not Sampled	Dry			•	Dry (I	Refer to Table 2	for Historical	Data)		•	•
MW18	TOC	03/07/12	Peristaltic Pump	329.12	5,900	43	<10	110	720					
MW20	TOC	03/09/12	Peristaltic Pump	330.63	5,800	200	57	310	480					
MW21	TOC	03/05/12	Not Sampled					Wellhead Inac	cessible (Refer	to Table 2 for	Historical Data)	•	
MW22	TOC	03/05/12	Not Sampled					Wellhead Inac	cessible (Refer	to Table 2 for	Historical Data)		
MW23	TOC	03/05/12	Not Sampled	318.25			Insut	fficient water f	or sampling (Re	efer to Table 2	for Historical D	Data)		
MW25	TOC	03/05/12	Not Sampled		Wellhead Inaccessible (Refer to Table 2 for Historical Data)									
MW28	TOC	03/05/12	Not Sampled		Wellhead Inaccessible (Refer to Table 2 for Historical Data)									
MW31	TOC/Farmasonis	03/07/12	Bailer	320.74	2,800	7.2	5.2	23	400	<1		<1	26.5	24.6
MW32	TOC	03/09/12	Peristaltic Pump	337.16	120	3.1	11	1.1	16					
MW33	TOC	03/05/12	Not Sampled	323.94			Insut	fficient water f	or sampling (Re	efer to Table 2	for Historical D	Data)	•	
MW35	TOC	03/05/12	Not Sampled	Dry				Dry (I	Refer to Table 2	for Historical	Data)			
MW36	TOC	03/08/12	Bailer	316.38	<100	<1	<1	<1	<3					
MW41	TOC/Farmasonis	03/05/12	Not Sampled	316.13				· I	nsufficient wat	er for samplin	g.		•	
MW42	TOC/Farmasonis	03/05/12	Not Sampled	Dry					D	ry				
MW43	ROW (56th)	03/05/12	Not Sampled	Dry					D	ry				
MW44	ROW (56th)	03/05/12	Not Sampled	Dry					D	ry				
MW45	ROW (56th)	03/05/12	Not Sampled	318.47			Insut	fficient water f	or sampling (Re	efer to Table 2	for Historical D	Data)		
MW46	ROW (56th)	03/05/12	Not Sampled	314.12			Insut	fficient water f	or sampling (Re	efer to Table 2	for Historical D	Data)		
MW47	ROW (56th)	03/05/12	Not Sampled	Dry				Dry (F	Refer to Table 2	2 for Historical	Data)			
MW48	ROW (56th)	03/08/12	Bailer	311.86	37,000	220	140	770	5,400 ^{ve}					
MW49	ROW (56th)	03/08/12	Bladder Pump	313.01	<100	<1	<1	<1	<3					
MW50	ROW (56th)	03/08/12	Bailer	327.08	<100	<1	<1	<1	<3					
MW51	ROW (56th)	03/08/12	Bailer	310.89	<100	<1	<1	<1	<3					
MW52	ROW (56th)	03/05/12	Not Sampled	Dry			•	Dry (I	Refer to Table 2	for Historical	Data)	•	•	•
MW53	ROW (56th)	03/07/12	Bailer	316.30	<100	<1	<1	<1	<3		,			
MW55	ROW (56th)	03/08/12	Bladder Pump	312.40	<100	<1	<1	<1	<3					
MW56	TOC/Farmasonis	03/06/12	Bladder Pump	312.92	<100	<1	<1	<1	<3					
MW57	TOC/Farmasonis	03/07/12	Bailer	311.96	2,100	9.7	2.3	87	160					
MW58	TOC/Farmasonis	03/07/12	Bladder Pump	311.69	<100	<1	<1	<1	<3					
MW59	TOC/Farmasonis	03/06/12	Bladder Pump	312.86	<100	<1	<1	<1	<3					
MTCA Metho	d A Cleanup Level ⁶	1,000/800ª	5	1,000	700	1,000	20	0.01	5	15	NE			



Summary of First Quarter 2012 Groundwater Analytical Results Sorted by Water-Bearing Zone TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington

Well ID	Property Owner	Date	Sample Method	Groundwater Elevation (feet) ¹	GRPH ²	Benzene ³	Toluene ³	Ethyl- benzene ³	Total Xylenes ³	MTBE⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
INTERMEDIATE WATER-BEARING ZONE (20 TO 60 FEET BGS), CONTINUED														
MW60	ROW (56th)	03/08/12	Bladder Pump	314.58	<100	<1	<1	<1	<3				<1	<1
MW63	ROW (56th)	03/08/12	Bladder Pump	311.80	<100	<1	<1	<1	<3				-	
MW65	Drake	03/07/12	Bladder Pump	310.98	<100	<1	<1	<1	<3	<1		<1	-	
MW66	TOC/Farmasonis	03/07/12	Bladder Pump	312.85	<100	<1	<1	<1	<3					
MW69	Drake	03/06/12	Bailer	310.88	5,400	1.5	<1	100	440	<1		<1		
MW70	Drake	03/06/12	Bailer	311.37	280	7.6	<1	<1	4.1	<1		<1		
MW75	ROW (56th)	03/07/12	Bladder Pump	311.37	<100	<1	<1	<1	<3				<1	<1
MW76	Drake	03/06/12	Bailer	311.50	<100	<1	<1	<1	<3	<1		<1		
MW77	Drake	03/06/12	Bailer	310.78	<100	<1	<1	<1	<3	<1		<1		
MW81	TOC/Farmasonis	03/06/12	Bailer	312.44	<100	<1	<1	<1	<3					
MW84	Drake	03/07/12	Bladder Pump	311.01	680	<1	1.6	5.0	14	<1		<1	-	
MW85	Drake	03/06/12	Bladder Pump	310.86	<100	3.1	<1	<1	<3	<1		<1	<1	<1
MW86	Drake	03/06/12	Bladder Pump	310.76	140	3.8	<1	<1	<3	<1		<1	-	
MW87	Drake	03/06/12	Bailer	310.89	<100	<1	<1	<1	<3	<1		<1	-	
MW89	Drake	03/06/12	Bladder Pump	311.00	<100	<1	<1	<1	<3	<1		<1		
MW90	TOC	03/05/12	Not Sampled	338.03					LNAPL (0.09 FEET)				
MW91	TOC	03/08/12	Bailer	337.71	15,000	36	95	410	3,100				15.9	<1
MW92	TOC/Farmasonis	03/06/12	Bailer	312.87	<100	<1	<1	<1	<3				4.19	<1
MW93	TOC/Farmasonis	03/06/12	Bailer	312.73	<100	<1	<1	<1	<3				5.60	<1
MW94	TOC/Farmasonis	03/06/12	Bailer	313.11	<100	<1	<1	<1	<3				<1	<1
MW95	Drake	03/07/12	Bailer	311.47	<100	<1	<1	<1	<3	<1		<1	2.74	<1
MW96	Drake	03/07/12	Bailer	311.82	<100	<1	<1	<1	<3	<1		<1	11.4	<1
MW97	Drake	03/07/12	Bailer	311.46	420	9.4	<1	<1	3.4	<1		<1	2.07	<1
MW98	Drake	03/08/12	Bailer	311.45	3,800	13	4.6	56	130	<1		<1	1.87	<1
MW99	Drake	03/06/12	Bailer	310.95	<100	2.1	<1	<1	<3	<1		<1	1.08	<1
MW101	Drake	03/06/12	Bailer	311.02	<100	<1	<1	<1	<3	<1		<1	22.6	<1
MTCA Metho	MTCA Method A Cleanup Level ⁶					5	1,000	700	1,000	20	0.01	5	15	NE



Summary of First Quarter 2012 Groundwater Analytical Results Sorted by Water-Bearing Zone TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington

Well ID	Property Owner	Date	Sample Method	Groundwater Elevation (feet) ¹	GRPH ²	Benzene ³	Toluene ³ ONE (OVER 60	Ethyl- benzene ³	Total Xylenes ³	MTBE⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead⁵
MW26	TOC	03/07/12	Bailer	316.38	<100	<1	<1	<1	<3					
MW30	TOC/Farmasonis	03/07/12	Bailer	315.36	<100	<1	<1	<1	<3					
MW39	TOC/Farmasonis	03/07/12	Bailer	314.80	<100	<1	<1	<1	<3					
MW40	TOC/Farmasonis	03/07/12	Bailer	315.16	<100	<1	<1	<1	<3					
MW64	ROW (56th)	03/08/12	Bailer	314.63	<100	<1	<1	<1	<3					
MW78	Drake	03/06/12	Bailer	313.09	<100	<1	<1	<1	<3	<1		<1		
MTCA Method A Cleanup Level ⁶					1,000/800 ^a	5	1,000	700	1,000	20	0.01	5	15	NE

NOTES:

Results measured in µg/L.

Red denotes concentration exceeds MTCA Method A Cleanup Levels for groundwater.

Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.

 6 MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

Laboratory Note:

ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

- = not sampled/not analyzed

< = not detected at concentration exceeding the value of the laboratory reporting limit

μg/L = micrograms per liter

BGS = below ground surface

Drake = Property at 24309 56th Avenue West

Dry = groundwater not encountered in well

EDB= 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

EPA = U.S. Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

LNAPL = light non-aqueous phase liquid

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

ROW (56th) = 56th Avenue West right-of-way

ROW (242nd) = 242nd Street Southwest right-of-way

TOC = Property at 24205 56th Avenue West (TOC Holdings Co. Facility No. 01-176)

TOC/Farmasonis = Property at 24225 56th Avenue West

¹ Elevations in feet above sea level (NAVD88 Datum) by Axis Survey & Mapping, April 2012.

²Analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPH-Gx.

³Analyzed by EPA Method 8021B.

⁴Analyzed by EPA Method 8260C.

⁵Analyzed by EPA Method 200.8.

 $^{^{\}text{a}}\text{1,000}\,\mu\text{g/L}$ when benzene is not present and 800 $\mu\text{g/L}$ when benzene is present.



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Well II	D	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW01 ^a		06/15/92		6.01		348.86	33,000	2,300	1,700	1,400	9,200					
TOC: 35	54.87	07/30/92		8.07		346.80										
		01/11/94		12.65		342.22	1,600	29	4.6	28	140					
TOC: 35	54.76	09/11/96		11.71		343.05	320	2.6	<0.5	15	46					
		03/11/97		4.93		349.83	<100	<0.5	<0.5	0.6	<1.5					
		09/17/97		12.32		342.44	76.7	0.595	2.9	1.99	13.4					
		03/16/98		6.93		347.83	490	1.15	<0.5	7.38	18.2					
	Ī	09/08/98		17.88		336.88	9,320	42.5	998	346	1,550					
		03/19/99		2.00		352.76	<50.0	<0.5	<0.5	<0.5	<1.0					
	Ī	09/17/99		11.02		343.74	910	<0.5	1.07	4.39	5.57					
		03/23/00		5.72		349.04	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/28/00		16.52		338.24	163	0.610	1.31	1.95	38.3					
		04/03/01		11.03		343.73	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/11/01		16.62		338.14	191	<0.5	1.41	13.4	54.7					
		03/27/02		6.18		348.58	142	<0.5	0.741	4.84	33.3					
		09/26/02		14.22		340.54	544	1.15	<0.5	8.38	11.2					
		03/27/03		9.12		345.64	78.9	<0.5	<0.5	0.634	<1.00					
		10/09/03		15.94		338.82	160	0.548	<0.5	2.84	11.3					
		03/09/05		9.79		344.97	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/26/05		11.33		343.43	<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
		12/20/05		11.63		343.13	<100	<1	<1	<1	<3	<1	<1	<1	1.36	
		02/24/06		6.52		348.24	<100	<1	<1	<1	<3	<1				
		06/01/06		8.90		345.86	<100	<1	<1	<1	<3					
		08/24/06		13.23		341.53	<100	<1	<1	<1	<3	<1				
		11/16/06		11.53		343.23	<50	<1	<1	<1	<3					
	L	02/21/07		9.86		344.90	<100	<1	<1	<1	<3					
	L	05/24/07		11.51		343.25	<100	<1	<1	<1	<3					
		07/31/07		15.02		339.74	<100	<1	<1	<1	<3					
	L	02/12/08		10.48		344.28	<100	<1	<1	<1	<3					
		10/02/09						DEC	O M M I S	SION	E D					
MTCA Metho	d A Clean	up Levels for Gro	undwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



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w	ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xvlenes ⁴	MTBE⁴	EDB ⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW02 ^a	-	06/15/92		4.00		352.44	13.000	590	1.900	350	2.500					
TOC:	356.44	07/30/92		7.61		348.83										
		01/11/94		15.50		340.94	50,000	4,600	7,300	1,200	8,300					
TOC:	355.25	09/11/96		11.99		343.26	33,000	1,800	4,000	780	5,400					
		03/11/97		6.02	1	349.23	100	4.8	3.7	2.5	16					
		09/17/97		12.75	1	342.50	25,700	709	2,200	617	4,050					
		03/16/98		8.27		346.98	1,700	28.3	53	55	276					
		09/08/98		15.90		339.35	15,300	259	2,040	<50	2,700					
		03/19/99		2.79		352.46	3,490	4.94	41.7	30.6	310					
		09/17/99					9,250	<25	1,300	173	1,910					
		03/23/00		7.39	-	347.86	4,920	<5.0	241	133	1,000					
		09/28/00		15.37	-1	339.88	20,700	135	1,830	845	5,390					
		04/03/01		13.86	1	341.39	18,800	<100	351	802	5,050					
		10/11/01		16.33	-1	338.92	16,900	69.7	469	643	4,650					
		03/27/02		6.79	Trace	348.46	11,500	16.3	23.0	331	1,930					
		09/26/02		14.18	Trace	341.07	8,260	<5.0	40.6	226	2,420					
		03/27/03		12.80		342.45	14,700	<10.0	11.3	324	3,020					
		10/09/03		14.28		340.97	3,600	<5.0	11.1	67.5	639					
		03/09/05		9.42		345.83	1,400	<1.00	2.00	4.00	71.0	<3.00				
		09/26/05		9.20	1	346.05		,	,	1	t sampled; truck p					1
		12/21/05		11.50		343.75	<100	<1	<1	<1	<3	<1	<1	<1	<1	
		02/23/06		5.88	1	349.37	<100	<1	<1	<1	<3	<1	-			
		06/01/06		7.86	-	347.39	<100	<1	<1	<1	<3					
		08/23/06		12.96	1	342.29	<100	<1	<1	<1	4.2	<1				
		11/15/06		15.89		339.36	260	<1	1.1	2	<8.9					
		02/21/07		10.38		344.87	<100	<1	<1	<1	<3					
		05/23/07		11.74		343.51	<100	<1	<1	<1	<3					
		08/01/07		13.85		341.40	<100	<1	<1	<1	<3					
		02/13/08		12.04		343.21	<100	<1	<1	<1	<3					
		03/04/10		9.94		345.31	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	358.78	03/08/12		12.74		346.04	<100	<1	<1	<1	<3					
MTCA M	ethod A Clea	nup Levels for Gro	oundwater⁵				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



We	II ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE⁴	EDB ⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
MW03 ^a		06/15/92		4.83		354.33	92.000	5.800	22.000	1.900	16.000					
	359.16	07/30/92		8.05		351.11										
		01/11/94		14.34		344.82	110,000	6,200	21,000	1,600	13,000					
TOC:	358.40	09/11/96	13.12	13.17	0.05	345.23										
		03/11/97		7.02	Trace	351.38										
		09/17/97		15.82		342.58	80,500	836	8,740	839	10,800					
		03/16/98		8.75	Trace	349.65										
		09/08/98		17.44		340.96	63,900	303	3,700	1,030	11,800					
		03/19/99		4.66		353.74	8,130	13.5	502	50.6	1,150					
		09/17/99		13.30		345.10	15,700	27.1	2,010	240	4,270					
		03/23/00		8.14		350.26	25,000	88.2	2,050	434	4,280					
		09/28/00		Dry												
		04/03/01		15.16		343.24	9,120	15.4	829	124	2,230					
		10/11/01		Dry	-											
		03/27/02		8.63		349.77	1,960	2.99	88.9	31.6	404					
		09/26/02		Dry	-											
		03/27/03		12.00		346.40	<50.0	0.663	<0.50	<0.50	<1.0					
		10/09/03		14.86	1	343.54	5,040	6.79	166	170	1,760					
		03/09/05		9.77		349.39	730	2.00	2.00	15.0	98.0	<3.00				
		09/27/05		9.35		349.81	<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
		12/22/05		11.01		348.15	<100	<1	<1	<1	<3				2.28	
		02/22/06		5.73		353.43	<100	<1	<1	<1	<3	<1				
		05/31/06		7.33		351.83	<100	<1	<1	<1	<3					
		08/23/06		13.49		345.67	1,000	<1	1.1	35	188.4	<1				
		11/14/06		17.61		340.79		•			ed; insufficient wa	ter to fill sample	containers	•		
		02/20/07		10.30		348.10	<100	<1	<1	<1	<3					
		05/22/07		11.78		346.62	<100	<1	<1	<1	<3					
		08/01/07		14.08		344.32	330	<1	<1	6	31					
		02/13/08		12.49		345.91	<100	<1	<1	1	5					
		03/04/10	-	9.61		348.79	<100	<1	<1	<1	<3	<1	<1	<1		
	361.87	03/08/12		13.08		348.79	<100	<1	<1	<1	<3					
MTCA Met	hod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



We	ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
MW04		07/30/92		7.19		351.32	100,000	470	15,000	2,500	18,000					
TOC:	358.51	01/11/94		Dry												
		09/11/96		12.65		345.86	22,000	77	480	600	4,800					
		03/11/97		6.08		352.43	7,200	3.2	220	170	1,400					
		09/17/97		14.76		343.75	17,400	30.1	92.9	78.4	846					
		03/16/98		7.95		350.56	37,200	44.3	3,760	804	5,970					
		09/08/98		18.03		340.48	22,200	77.9	1,390	199	3,520					
		03/19/99		3.97		354.54	22,900	32.7	1,300	334	3,440					
		09/17/99		12.86		345.65										
		03/23/00							1							
		09/28/00		16.95		341.56	1,010	<10.5	34.8	243	829					
		04/03/01		16.03		342.48	12,900	<25	102	538	2,870					
		10/11/01		Dry					1							
		03/27/02		6.26		352.25	3,900	2.95	181	89.1	714					
		09/26/02		15.30		343.21	1,000	1.85	5.97	112	135					
		03/27/03		11.92		346.59	38,100	<50.0	3,890	1,270	7,840					
		10/09/03		15.47		343.04	24,900	<100.0	1,760	1,020	7,220					
		03/09/05		9.35		349.16	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/26/05	9.20	9.20	0.00	349.31				LNA	APL; not sampled	due to heavy she	een			
		12/22/05		11.11		347.40	<100	<1	<1	<1	<3	<1			<1	
		02/22/06		4.25		354.26	<100	<1	<1	<1	<3	<1				
		05/31/06		5.00		353.51	<100	<1	<1	<1	<3					
		08/23/06		12.76		345.75	<100	<1	<1	<1	<3	<1				
		11/14/06					No	ot gauged or samp	led; inaccessible	due to road const	ruction activity					
		02/21/07		8.97		349.54	<100	<1	<1	<1	<3					
		05/22/07		10.84		347.67	<100	<1	<1	<1	<3					
		08/01/07		13.62		344.89	<100	<1	<1	<1	<3					
		02/13/08		11.51		347.00	<100	<1	<1	<1	4					
		03/02/10		8.53		349.98	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	362.02	03/07/12		14.34		347.68	<100	<1	<1	1.5	<3					
MTCA Me	thod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



w	/ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW05		07/30/92		9.10		351.15	<50.0	<0.5	<0.5	<0.5	<0.5					
TOC:	360.25	01/11/94		Dry												
		09/11/96		13.33		346.92	88.0	<0.5	0.53	1.1	6.4					
		03/11/97		6.15		354.10	<100	<0.5	<0.5	<0.5	<1.5					
		09/17/97		13.79		346.46	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/16/98		7.86		352.39	<50.0	<0.5	<0.5	<0.5	<2.0					
		09/08/98		Dry												
		03/19/99		4.75		355.50	<50.0	<0.5	<0.5	<0.5	1.07					
		09/17/99		Dry												
		03/23/00		7.35		352.90	<50.0	<0.5	1.64	0.501	3.43					
		09/28/00		Dry												
		04/03/01		13.39		346.86	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/11/01		Dry												
		03/27/02		6.41		353.84	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/26/02		Dry												
		03/27/03		10.80		349.45	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/09/03		Dry												
		03/09/05		11.57		348.68	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/27/05		12.57		347.68	<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
		12/22/05		Dry												
		02/22/06		6.76		353.49	<100	<1	<1	<1	<3	<1				
	02/22/06 6.76 353.49 05/31/06 8.42 351.83						<100	<1	<1	<1	<3					
		08/23/06		14.10		346.15				Not sample	ed; insufficient wa	ter to fill sample	containers			
		11/14/06		14.75		345.50				Not sample	ed; insufficient wa	ter to fill sample	containers			
		02/20/07		9.50		350.75	<100	<1	<1	<1	<3					
		05/22/07		11.35		348.90	<100	<1	<1	<1	<3					
		08/03/07		14.36		345.89	<100	<1	<1	<1	<3					
		02/13/08		11.68		348.57	<100	<1	<1	<1	<3					
		03/02/12		11.68		348.57	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	363.76	03/08/12		12.45		351.31	<100	<1	<1	<1	12					
MTCA M	ethod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



Table 2
Summary of Historical Groundwater Analytical Results
June 1992 through March 2012
TOC Holdings Co. Facility No. 01-176
24205 56th Avenue West
Mountlake Terrace, Washington

			Depth to	Depth to	LNAPL	Groundwater										
w	ell ID	Sample Date	LNAPL ¹ (feet)	Groundwater ¹ (feet)	Thickness (feet)	Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead ⁵	Dissolved Lead ⁵
MW06		07/30/92		8.66		346.71	<50.0	<0.5	<0.5	<0.5	<0.5					
TOC:	355.37	01/11/94		12.92		342.45	<50.0	<0.5	2	<0.5	2.6					
		09/11/96	1	12.26		343.11	<50.0	<0.5	<0.5	<0.5	<0.5					
		03/11/97		4.96		350.41	<100	<0.5	<0.5	<0.5	<1.5					
		09/17/97		12.83		342.54	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/16/98		6.77		348.60	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/08/98		15.00		340.37	868	1.92	73.0	21.3	172					
		03/19/99		3.95		351.42	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/17/99		12.53		342.84	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/23/00		7.97		347.40	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/28/00	1	Dry												
		04/03/01	1	11.64		343.73	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/11/01		Dry												
		03/27/02	1	6.06		349.31	<50.0	<0.5	<0.5	<0.5	<1.0	-				
		09/26/02		Dry												
		03/27/03		8.10		347.27	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/09/03		Dry												
		03/09/05	-	9.30		346.07	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/26/05		12.26		343.11	<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
		12/22/05		Dry												
		02/22/06		5.93		349.44	<100	<1	<1	<1	<3	<1				
		05/31/06		9.88		345.49	<100	<1	<1	<1	<3					
		08/22/06		14.68		340.69	1200				ed: insufficient wa			1	1	-
		11/14/06		Dry												
		02/21/07	-	10.05		345.32	<100	<1	<1	<1	<3					
		05/22/07	-	12.79		342.58	<100	<1	<1	<1	<3					
		07/31/07		14.71		340.66	1200	1	1		ed; insufficient wa	ter to fill sample	containers	1		4
		02/13/08		10.96		344.41	<100	<1	<1	<1	<3					
		03/04/10	-	9.42		345.95	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10	-	12.49		342.88	1200	1	1	-	Not sampled,			1		4
TOC:	358.86	03/08/12		12.87		345.99	<100	<1	<1	<1	<3					
MW07	330.00	07/30/92	-	8.40		344.58	<50.0	<0.5	<0.5	<0.5	<0.5					
TOC:	352.98	01/11/94		12.93		340.05	<50.0	<0.5	<0.59	<0.5	<1.0					
100.	332.30	09/11/96		11.95		341.03	<50.0	<0.5	<0.5	<0.5	<0.5					
		03/11/97	-	5.63		347.35	<100	<0.5	<0.5	<0.5	<1.5					
		09/17/97	-	12.00		340.98	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/16/98	-	7.70		345.28	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/08/98		Dry												
		03/19/99		2.91		350.07	<50.0	<0.5	1.07	<0.5	2.66					
		09/17/99		11.77		341.21	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/23/00		6.80		346.18	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/28/00		13.92		339.06	<50.0	<0.5	<0.5	<0.5	<1.0					
				12.51		340.47	604	<0.5	<0.5	<0.5	3.17					
		04/03/01 10/11/01				340.47		<0.5 	<0.5 	<0.5 	3.17					
		03/27/02		7.05		345.93	<50.0	<0.5	<0.5	<0.5	<1.0					
				13.52		339.46	<50.0 <50.0	<0.5	<0.5	<0.5	<1.0					
		09/26/02						<0.5			4.08			-		_
		03/27/03		11.22		341.76	<50.0		1.41	0.745						
		10/09/03		14.31		338.67	<50.0	<0.5	<0.5	<0.5	<1.0					
		11/08/04		12.27		340.71	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		11/29/04	6				h	ı	O M M I S			_	1 _	T	T	
МТСА М	etnod A Clea	nup Levels for Gro	oundwater ⁻				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



Well II	ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xvlenes ⁴	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
MW08		01/11/94		24.86		332.06	290	0.53	0.54	<0.5	<1.0					
	56.92	09/11/96		22.30		334.62	<50.0	<0.5	<0.5	<0.5	<0.5					
	50.52	03/11/97		9.68		347.24	<100	<0.5	<0.5	<1.5	<1.5					
	f	09/17/97		24.18		332.74	<50.0	<0.5	<0.5	<0.5	<1.0					
	f	03/16/98		12.53		344.39	<50.0	<0.5	<0.5	<0.5	<1.0					
	f	09/08/98		25.59		331.33	60.0	<0.5	2.33	1.21	10.5					
	Ī	03/19/99		3.23		353.69	<50.0	<0.5	<0.5	<0.5	<1.0					
	Ī	09/17/99		9.30		347.62	<50.0	<0.5	0.508	<0.5	1.30					
		03/23/00		7.57	-1	349.35	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/28/00		25.70		331.22	<50.0	<0.5	<0.5	<0.5	<1.0					
		04/03/01		24.35		332.57	<50.0	<0.5	<0.5	1.53	7.92					
		10/11/01		26.61		330.31	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/27/02		8.08		348.84	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/26/02		24.66	-	332.26	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/27/03		15.13	1	341.79	<50.0	<0.5	<0.5	<0.5	<1.0					
		10/09/03		25.82	-1	331.10	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/09/05		12.46		344.46	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/26/05		12.87	Sheen	344.05					Not sampled due t	o apparent sheer	ו			
		12/22/05		11.30		345.62	<100	<1	<1	<1	<3.6				<1	
		02/22/06		4.36		352.56	<100	<1	<1	<1	<3	<1				
		05/31/06		6.41		350.51	<100	<1	<1	<1	<3					
		08/23/06		17.30		339.62	<100	<1	<1	<1	<3	<1				
		11/14/06		23.77		333.15	<50	<1	<1	<1	<3					
		02/21/07		10.91		346.01	<100	<1	<1	<1	<3					
	Į.	05/22/07		14.09	-	342.83	<100	<1	<1	<1	<3					
		08/02/07		21.83	-	335.09	<100	<1	<1	<1	<3					
		02/12/08		12.56		344.36	<100	<1	<1	<1	<3					
		03/02/10		9.61		347.31	<100	<1	<1	<1	<3	<1	<1	<1		
	60.40	03/08/12		15.47		344.93	<100	<1	<1	<1	<3					
MTCA Metho	od A Clean	up Levels for Gro	undwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



			Depth to	Depth to		Groundwater										
			LNAPL ¹		LNAPL	Elevation ²										
14/	/ell ID	Sample Date	(feet)	Groundwater ¹ (feet)	Thickness (feet)	(feet)	GRPH ³	Benzene⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Vulanas ⁴	MTBE⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead⁵
	reli iD		,	· · ·	` '	, ,				'	•					
MW09 ^a		01/11/94		30.27		327.57	94,000	16,000	26,000	1,800	13,000					
TOC:	357.84	09/11/96	26.70	28.41	1.71	328.45					LNA					
TOC:	356.86	03/11/97		21.42		335.44					LNAPL; not samp		I			
		09/17/97		29.90		326.96	17,200	157	82.8	<10	2,690					
		03/16/98	21.96	21.97	0.01	334.89					LNA					
		09/08/98	31.83	31.84	0.01	325.02					LNA					
		03/19/99	16.97	16.98	0.01	339.88					LNA					
		09/17/99	25.05	25.06	0.01	331.80					LNA	\PL				
		03/23/00		20.25		336.61					LNAPL; not samp	led due to sheen				
		09/28/00		Dry												
		04/03/01		28.64		328.22				_,	LNAPL; not samp	led due to sheen				,
		10/11/01		29.71		327.15	18,400	495	904	270	5,110					
		03/27/02		19.27		337.59	14,000	131	1,370	190	4,000					
		09/26/02		27.47		329.39	26,500	740	1,940	669	5,790					
		03/27/03		24.82		332.04	42,700	264	3,040	777	9,500					
		10/09/03		27.54		329.32	1,400	33.2	119	41.8	386					
		03/09/05		16.75		340.11	15,000	94.0	160	120	2,200	<30.0				
		09/27/05	l	Jnable to gauge; p	robe diameter too	large	2,320	<1.00	6.21	41.8	575	<5.00	<1.00	<1.00		
		12/22/05		22.33		334.53	2,200	<1	10	26	990				1.07	
		02/22/06		11.51		345.35	660	<1	<1	11	147	<1				
		06/01/06		14.34		342.52	1,500	1,500	4	40	450					
		08/24/06		25.79		331.07	24,000	330	420	550	4,800	<1				
		11/15/06		34.12		322.74	3,800	360	150	68	1,820					
		02/20/07		19.79		337.07	4,100	5	32	83	1,100					
		05/23/07		23.19		333.67	13,000	91	270	330	3,100					
		08/01/07		26.98		329.88	4,800	59	120	100	1,200					
		02/12/08		23.30		333.56	5,900	23	100	96	1.500					
		03/04/10		17.50		339.36	5,000	<1	4	45	980	<1	<1	<1		
TOC:	360.32	03/07/12		23.35		336.97	11,000	30	76	370	2,400					
MTCA Me	ethod A Clea	nup Levels for Gro	oundwater ⁶	•	•		1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



W	ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Yulanes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
MW10 ^a	CILID	11/20/95		Dry												
TOC:	354.43	09/11/96	33.36	33.63	0.27	320.80					LNA					
100.	334.43	03/11/97	28.41	28.50	0.09	325.93					LNA					
		09/17/97		35.20	Trace	319.23	34,500	1.430	2,710	188	5,720					
		03/16/98		26.67		327.76										
		09/08/98		35.12		319.31	18,400	1.470	1.050	283	3,990					
		03/19/99	24.39	24.43	0.04	330.00	20,100	2,	2,000		LNA	\PL			I.	1
		09/17/99		32.43		322.00	26,000	1,090	2,130	621	6,180					
		03/23/00					33,200	1,290	3,650	903	7,130					
		09/28/00		33.02	Trace	321.41	11,900	608	645	54.0	3,270					
		04/03/01					19,600	979	1,360	532	414					
		10/11/01		32.73		321.70	9,110	342	478	94.5	2,050					
		03/27/02		25.09		329.34	39,600	548	1,950	419	2,480					
		09/26/02		27.90		326.53	72,800	5,130	8,260	1,640	11,800					
		03/27/03														
		10/09/03					26,500	2,390	2,870	948	6,670					
		03/09/05		26.04		328.39	15,000	580	820	320	2,100	<150				
		09/26/05		25.56		328.87	1,440	38.4	79.2	24.9	150.4	<5.00	<1.00	<1.00		
		12/20/05		28.40		326.03	15,000	960	670	560	3,700	<1	<1	<1	9.39	
		02/24/06		22.68		331.75	830	20	89	22	141	<1				
		06/01/06		24.09		330.34	2,600	19	67	28	360					
		08/24/06		27.64		326.79	4,800	150	98	110	1,010	<1				
		11/14/06		34.02		320.41			N	ot sampled; too de	ep for peristaltic	oump and bailer of	obstructed by pac	ker		
		02/20/07	25.16	25.21	0.05	329.26					LNA					
		05/22/07	27.10	27.18	0.08	327.31		,			LNA	\PL	1	•		,
		08/02/07		37.89		316.54	7,700	200	100	92	780					
		02/13/08		26.64		327.79	1,700	66	29	17	160					
		03/04/10		25.23		329.20	320	3	<1	<1	7	<1	<1	<1		
TOC:	357.97	03/07/12		27.45		330.52	1,400	62	7.3	27	89					
MTCA Me	ethod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE

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			Depth to	Depth to Groundwater ¹	LNAPL Thickness	Groundwater Elevation ²	2	4				4	4	.4		
Wel	I ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
MW11 ^a		11/20/95	27.33	27.33		330.79	15,000	1,000	3,800	570	3,300					
TOC:	358.12	09/11/96	34.29	34.56	0.27	323.56										
		03/11/97		19.83	Trace	338.29										
		09/17/97		25.24		332.88	17,800	393	2,030	67.4	2,480					
		03/16/98		20.61	Trace	337.51										
		09/08/98		25.41		332.71	6,220	189	461	12.5	1,380					
		03/19/99	19.39	19.40	0.01	338.72										
		09/17/99		24.89		333.23	11,200	120	1,250	152	2,790					
		03/23/00		20.64	Trace	337.48										
		09/28/00	26.22	26.23	0.01	331.89										
		04/03/01	-	25.14	-1	332.98	38,700	403	4,950	1,530	9,860					
		10/16/01	1	28.49	Trace	329.63										
		04/02/02	20.18	20.20	0.02	337.92										
		09/26/02	1	25.19		332.93	15,400	120	556	420	3,500					
		03/27/03	1	22.84	1	335.28	72,900	88.2	5,330	2,100	16,900					
		10/09/03	-	26.25	-	331.87	21,100	109	1,430	625	7,020					
		03/09/05	22.00	22.01	0.01	336.11										
		09/27/05		21.86		336.26	50,300	22.2	2,710	2,050	14,930	<5.00	<1.00	<1.00		
		12/21/05		22.69		335.43	44,000	32	2,200	2,700	17,600	<1	<1	<1	<1	
		02/22/06		18.42		339.70	45,000	12	1,200	2,200	13,600	<1				
		05/31/06	-	16.85		341.27	48,000	55	1,700	2,500	14,000					
		08/23/06		23.53		334.59	53,000	24	2,000	2,200	15,200	<1				
		11/14/06	26.90	27.02	0.12	331.20					LNA	.PL	•	•		
		02/20/07		20.58		337.54	48,000	68	800	2,000	12,000					
		05/22/07	22.40	22.41	0.01	335.72					LNA	.PL	•	•		
		08/01/07		24.22		333.90	45,000	64	1,100	1,800	12,000					
		02/12/08		21.71		336.41	48,000	41	640	1,700	14,000					
		03/04/10	-	19.74		338.38	44,000	22	350	1,400	8,400	<1	<1	<1		
TOC:	362.25	03/05/12		Dry							Dr	у				
MTCA Meth	hod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



			Depth to	Depth to Groundwater ¹	LNAPL Thickness	Groundwater Elevation ²										
W	Vell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead ⁵	Dissolved Lead⁵
MW12		10/11/01		16.34		337.85	<50.0	<0.5	<0.5	<0.5	<1.0					
TOC:	354.19	03/27/02		7.01		347.18	<50.0	<0.5	<0.5	<0.5	<1.0					
		09/26/02		13.60		340.59	<50.0	<0.5	<0.5	<0.5	<1.0					
		03/27/03		11.20		342.99	<50.0	<0.5	1.00	0.556	2.29					
		10/09/03		15.10		339.09	<50.0	<0.5	<0.5	<0.50	<1.0					
		03/09/05		11.06		343.13	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
		09/26/05		12.97		341.22	<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
		12/22/05		13.37		340.82	<100	<1	<1	<1	<3	<1			<1	
		02/22/06		6.34		347.85	<100	<1	<1	<1	<3	<1				
		05/31/06		8.65		345.54	<100	<1	<1	<1	<3					
		08/23/06		12.12		342.07	<100	<1	<1	<1	<3	<1				
		11/16/06		15.61		338.58	<50	<1	<1	<1	<3					
		02/21/07		9.66		344.53	<100	<1	<1	<1	<3					
		05/23/07		10.80		343.39	<100	<1	<1	<1	<3					
		08/02/07		13.02		341.17	<100	<1	<1	<1	<3					
		02/13/07		10.59		343.60	<100	<1	<1	<1	<3					
		05/14/08		10.30		343.89	1200				Not sampled	: just gauged	I .	ı	1	
		03/02/10		9.03		345.16	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	357.69	03/08/12		11.64		346.05	<100	<1	<1	<1	<3					
MW13	337.03	10/11/01		Dry		Dry										
TOC:	353.87	03/27/02		40.57		313.30	11.300	1.450	<25.0	1.210	1.470					
100.	333.07	09/26/02		Dry												
		03/27/03		Dry												
		10/09/03		Dry												
		03/09/05		Dry												
		09/26/05		41.69		312.18	NA ⁷	NA ⁷	NA ⁷	NA ⁷	NA ⁷	NA ⁷				
		12/22/05		41.69 Dry		512.10	INA 		INA 	INA 	INA 					
		02/02/06		41.59		312.28	8,400	520	9.4	680	1,239	<1	<1	3.5		
		02/02/06		41.36		312.51	6,400		9.4					3.5		
		05/31/06				312.58	6,700	340	22	520					+	
		08/23/06		41.29 Dry		312.58	6,700	340		520	810					
		11/14/06		Dry												
		02/20/07		41.21		312.66					ed; insufficient wa					
		05/22/07		41.21 Dry		312.00					eu, msumcient Wa	iter to mi sample	Containers			
		05/22/07		Dry							ed; insufficient wa	ter to fill cample	containers			
		02/13/08		Dry							ed; insufficient wa					
		05/14/08								ivor sampi			CONTAINEIS			
		03/04/10		Dry 41.23		312.64	1,700	60	17	94	Not sampled 150	; just gauged <1	<1	1.7	1	
TOC:	357.39	03/04/10		41.23 Drv		312.64	1,700	טט	1/	94	150 Di		<1	1./		
MW14	357.39	11/29/04		DIY				D E C	O M M I S	SION		у				
			6				h			1	1				1	1
MICA M	etnod A Clea	nup Levels for Gro	oundwater ⁻				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



W	/ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
MW15		10/29/04		36.37		318.02	5,400	<10.0	46.0	270	880					
TOC:	354.39	03/09/05	33.12	33.16	0.04	321.23										
		09/26/05	32.32	32.67	0.35	322.00				•	LNA	.PL		•		•
		12/22/05	32.64	32.89	0.25	321.70					LNA	.PL				
		02/22/06	-	29.47		324.92				N	lot sampled; abso	rbent socks in we	II			
		06/01/06		30.55		323.84	12,000	28	23	470	1,700					
		08/23/06	-	37.29		317.10					LNA	\PL				
		11/14/06	36.65	36.68	0.03	317.73					LNA	\PL				
		02/20/07	-							Not m	easured; LNAPL, a	bsorbent socks i	n well.			
		05/22/07	33.00	33.00	0.00	321.39					LNA					
		08/01/07	-	34.31		320.08				N	ot sampled; absor		ell			
		02/11/08	34.60	34.62	0.02	319.79					LNA					
		03/01/10	31.95	32.12	0.17	322.41					LNA					
		12/06/10	36.29	36.46	0.17	318.07					ampled, just gaug	ed for LNAPL reco	overy			
TOC:	357.5	03/08/12		33.12		324.38	8,200	<5	<5	88	480					
MW16		03/09/05		Dry												
TOC:	361.89	09/26/05		Dry												
		12/22/05		Dry												
		02/22/06	-	Dry												
		06/01/06	-	45.05		316.84	<100	<1	<1	<1	<3					
		08/23/06	-	Dry												
		11/14/06	-	Dry												
		02/20/07		46.30		315.59	<100	<1	<1	<1	<3					
		05/23/07	-	46.06		315.83	<100	<1	<1	<1	<3					
		07/31/07	-	Dry							ed; insufficient wa	· ·				
		02/11/08		Dry						Not sample	ed; insufficient wa	iter to fill sample	containers			
		03/02/10	-	45.54		316.35	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	365.24	03/05/12		Dry							Dr	у				
MW17		07/27/04		43.18		309.47	<80	<0.5	<0.5	<0.5	<1.5					
TOC:	352.65	11/29/04						D E C	O M M I S	SION	E D		T		T	
MTCA M	ethod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



			Depth to	Depth to	LNAPL	Groundwater										
			LNAPL ¹	Groundwater ¹	Thickness	Elevation ²									_	_
	ell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB⁴	EDC ⁴	Total Lead ⁵	Dissolved Lead ⁵
MW18		03/09/05	35.18	35.33	0.15	319.49										
TOC:	354.82	09/26/05	12.94	13.15	0.21	341.84					LNA					
		12/22/05	35.72	35.72	0.00	319.10					LNA	\PL				
		02/22/06		·						icle parked over va	,		1	1		
		06/01/06		29.65		325.17	32,000	290	340	1,100	7,000					
		08/22/06							LNAPL; absorben							
		11/14/06							LNAPL; absorben							
		02/20/07		,						ked over well-hea					1	1
		05/22/07		36.00		318.82	22,000	96	63	440	4,200					
		07/31/07		37.01		317.81			1		LNAPL; absorbe	nt socks in well			1	1
		02/14/08		35.58		319.24	13,000	98	28	<10	2,200					
		03/04/10		32.35		322.47	12,000	96	28	270	1,600	<1	<1	<1		
TOC:	357.86	03/07/12		28.74		329.12	5,900	43	<10	110	720					
MW19		03/09/05		11.25		344.17	<50.0	<1.00	<1.00	<1.00	<3.00	<3.00				
TOC:	355.42	09/26/05	11.29	11.30	0.01	344.13		ı		1	LNA		ı	1	_	
		12/21/05		13.13		342.29	<100	<1	<1	<1	<3	<1			<1	
		02/22/06		7.96		347.46	<100	<1	<1	<1	<3	<1				
		06/01/06		9.91		345.51	<100	<1	<1	<1	<3					
		08/24/06		14.12		341.30	<100	<1	<1	<1	<3	<1				
		11/15/06		18.19		337.23	<50	<1	<1	<1	<3					
		02/20/07		12.47		342.95	<100	<1	<1	<1	<3					
		05/24/07		13.63		341.79	<100	<1	<1	<1	<3					
		08/01/07		14.89		340.53	<100	<1	<1	<1	<3					
		02/12/08		13.64		341.78	<100	<1	<1	<1	<3					
		03/04/10		11.98		343.44	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	358.90	03/09/12	-	13.56		345.34	<100	<1	<1	<1	<3					
MW20		03/09/05	27.86	27.88	0.02	328.59					LNA					
TOC	356.47	09/26/05	26.16	28.25	2.09	329.89		1		1	LNA		1	1		1
		12/20/05		29.08		327.39	13,000	740	640	330	2,790	<1			4.69	
		02/22/06	-	24.60		331.87	25,000	710	1,800	710	5,100	<1				
		05/31/06	26.30	26.41	0.11	330.15					LNA					
		08/22/06	29.71	29.73	0.02	326.76					LNAPL; absorbe					
		11/14/06	36.00	36.00	0.00	320.47					LNAPL; absorbe					
		02/20/07	27.19	27.22	0.03	329.27					LNA	" "				
		05/22/07	28.82	28.94	0.12	327.63					LNAPL; absorbe					
		07/31/07		31.01		325.46					ot sampled; abso	rbent socks in we	ell			
		02/13/08		28.65		327.82	20,000	450	990	450	3,600					
		03/04/10		27.16		329.31	11,000	390	1,100	390	1,700	<1	<1	<5		
TOC:	359.98	03/09/12		29.35		330.63	5,800	200	57	310	480					
MTCA M	ethod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



Table 2
Summary of Historical Groundwater Analytical Results
June 1992 through March 2012
TOC Holdings Co. Facility No. 01-176
24205 56th Avenue West
Mountlake Terrace, Washington

		Depth to	Depth to	LNAPL	Groundwater										
		LNAPL ¹	Groundwater ¹	Thickness	Elevation ²										
Well ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
MW21 ^a	10/29/04		29.90		326.51	4,800	200	140	9.00	470					
TOC: 356.41	03/09/05		28.35		328.06	1,600	92.0	64.0	39.0	170	<3.00				
	09/26/05		Unable to gauge; p	robe diameter too		<50.0	<1.00	1.76	<1.00	<3.59	<5.00	<1.00	<1.00		
	12/20/05		29.63		326.78	1,700	61	320	42	249	<1	<1	<1	4.52	
	02/22/06		25.00		331.41	130	1.9	6.8	3.4	14.8	<1			4.32	
	05/31/06		26.58		329.83	130	2	11	2	20					
	08/23/06		30.31		326.10	340	38	25	8.2	100	<1				
	11/14/06		39.35		317.06	340	30	23		ed; insufficient wa		containers	I .	1	.1
	02/21/07		27.75		328.66	310	3	30	6.5	47					
	05/23/07		29.69		326.72	<100	2	1	<1	5					
	08/02/07		31.69		324.72	2,500	140	17	65	550					
	02/13/08		29.50		326.91	940	2	6	6	78					
	05/14/08		29.38		327.03	340				Not sampled	· iust gauged	1	I .	1	4
	03/04/10		28.65		327.76	370	<1	5	3	32	<1	<1	<1		
	03/05/12					370	``		1 3	Wellhead in		1	1	1	1
MW22 ^a	10/29/04		30.27		325.34	130	4.00	<1.00	<1.00	19.0					
TOC: 355.61	03/09/05		26.98		328.63	<50.0	1.00	<1.00	<1.00	<3.00	<3.00				
100. 555.61	09/26/05		Unable to gauge; p			<50.0	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00		
	12/20/05		28.27		327.34	<100	<1.00	<1.00	<1.00	<3	<1	<1.00	<1.00	<1	
	02/22/06		23.02		332.59	<100	<1	<1	<1	<3	<1				
	06/01/06		25.14		330.47	<100	<1	<1	<1	<3					
	08/24/06		28.25		327.36	<100	<1	<1	<1	<3	<1				
	11/15/06		37.62		317.99	550	5.1	<1	<1	<3					
	02/20/07		26.45		329.16	<100	<1	<1	<1	<3					
	05/24/07		28.20		327.41	<100	<1	<1	<1	<3					
	08/02/07		30.72		324.89	<100	<1	<1	<1	<3					
	02/13/08		27.82		327.79	<100	<1	<1	<1	<3					
	03/04/10		26.55		329.06	<100	<1	<1	<1	<3	<1	<1	<1		
TOC: 358.56	03/05/12					1100	``	1	``		naccessible	1	1	1	4
MW23	10/29/04		Dry												
TOC: 356.61	03/09/05		Dry												
333.01	09/26/05		39.12		317.49		1	1		ed; insufficient wa	ater to fill sample	containers	1	1	.1
	12/22/05		Dry												
	02/22/06		38.05		318.56	1,100	4.9	<1	65	7.8	<1				
	06/01/06		38.79		317.82	760	3	2.1	18	22	-				
	08/22/06		39.12		317.49	, 55		1		ed; insufficient wa	ater to fill sample	containers	1	1	.1
	11/14/06		39.38		317.23					ed; insufficient wa	<u>'</u>				
	02/21/07		38.12		318.49	<100	<1	<1	<1	<3					
	05/24/07		38.88		317.73	330	1	<1	<1	<3					
	07/31/07		39.10		317.51					ed; insufficient wa	ater to fill sample	containers	1	1	
	02/11/08		38.55		318.06	<100	<1	<1	<1	<3					
	03/04/10		38.46		318.15	<100	<1	<1	<1	<3	<1	<1	<1		
TOC: 357.13	03/05/12		38.88		318.25					ed; insufficient wa		1	1		<u></u>
MTCA Method A Cle		oundwater ⁶				1,000/800 ^b	5	1,000	700	1.000	20	0.01	5	15	NE
	.,					_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_,		_,					



w	ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xvlenes ⁴	MTBE ⁴	EDB⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW24 ^a	<u>.</u>	10/29/04		26.61		332.64	45,000	440	2,300	570	7,800					2.0001104 2044
TOC:	359.25	03/09/05		15.85		343.40	19,000	74.0	210	98.0	2,700	<30.0				
100.	333.23	09/27/05		Unable to gauge; p			478	<1.00	1.08	4.19	82.9	<5.00	<1.00	<1.00		
		12/22/05		11.01		348.24	<100	<1	<1	1.0	11.8	<1			<1	
		02/22/06		8.91		350.34	<100	<1	<1	<1	4.8	<1				
		06/01/06		9.98		349.27	<100	<1	<1	<1	6					
		08/23/06		20.21		339.04	8,400	<1	32	98	1,930	<1				
		11/15/06		36.05		323.20	16,000	77	250	240	2,870					
		02/21/07		14.24		345.01	460	<1	2	6	78					
		05/22/07		16.73		342.52	5,700	2	29	41	1,000					
		08/01/07		25.59		333.66	9,000	39	140	97	2,400					
		02/12/08		19.68		339.57	1,800	<1	4	4	140					
		02/04/09		21.94		337.31	11,000	27	190	180	2,290	<1				
		07/30/09	26.82	26.82	0.00	332.43	15,000	130	230 ^{ve}	<1	3,400	<1	<1	<1		
		03/04/10		13.43	0.00	345.82	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	361.85	03/09/12		21.01		340.84	4,400	7.3	39	39	770		-			
MW25 ^a		10/29/04		29.40		326.91	57,000	860	6,700	810	8,700					
TOC:	356.31	03/09/05		27.61		328.70	38,000	670	2,700	750	6,500	<150				
		09/27/05		Unable to gauge; p			20,800	378	1,070	106	4,390	<5.00	<1.00	<1.00		
		12/21/05		28.20		328.11	25,000	670	2,600	830	6,700	<1	<1	<5	8.47	
		02/22/06		23.68		332.63	24,000	420	2,300	510	5,400	<1				
		06/01/06		25.56		330.75	25,000	390	2,100	750	6,300					
		08/24/06		28.97		327.34	21,000	320	840	890	7,300	<1				
		11/15/06		36.08		320.23	32,000	66	<50	<50	6,800					
		02/22/07		26.41		329.90	27,000	370	2,100	730	6,500					
		05/23/07		27.94		328.37	26,000	220	1,400	630	5,800					
		08/02/07		29.75		326.56	24,000	280	770	730	5,200					
		02/12/08		27.80		328.51	22,000	260	1,400	380	4,500					
		03/04/10		26.11		330.20	7,600	30	310	90	1,700	<1	<1	<1		
TOC:	359.01	03/05/12									Wellhead in	naccessible		1	-1	
MW26		12/21/05		50.15		311.25	120	1.5	38	1.0	5.5	<1	<1	<1	5.27	
TOC:	361.40	02/22/06		47.67		313.73	<100	<1	<1	<1	<3	<1				
		06/01/06		45.62		315.78	<100	<1	<1	<1	<3					
		08/24/06		47.37		314.03	<100	<1	<1	<1	<3	<1				
		11/16/06		49.43		311.97	<50	<1	<1	<1	<3					
		02/21/07		46.69		314.71	<100	<1	<1	<1	<3					
		05/24/07		45.76		315.64	<100	<1	<1	<1	<3					
		08/03/07		47.19		314.21	<100	<1	<1	<1	<3					
		02/11/08		47.87		313.53	<100	<1	<1	<1	<3		-			
		03/04/10		45.00		316.40	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	363.86	03/07/12		47.48		316.38	<100	<1	<1	<1	<3					
MW27		12/21/05		20.23		336.08	34,000	15	190	2,300	13,600	<1	<1	<1	4.08	
TOC:	360.59	02/22/06		15.18		345.41	48,000	18	430	2,400	12,600	<1				
		06/01/06		17.00		343.59	41,000	30	580	1,900	11,000					
		08/22/06	21.81	21.82	0.00	338.77	,		•	<u> </u>	LNA	PL			,	
		11/14/06	25.55	25.55	0.00	335.04					LNAPL; absorbe	nt socks in well				
		02/20/07		17.49		343.10					LNAPL; absorbe	nt socks in well				
		05/22/07	19.86	19.86	0.00	340.73					LNAPL; absorbe	nt socks in well				
		08/01/07		22.38		338.21				N	ot sampled; abso		ell			
		02/11/08	18.93	19.00	0.07	341.59				-	LNAPL; absorbe	nt socks in well				
		03/04/10		16.06		344.53	26,000	<10	290	870	4,800	<1	<1	<1		
TOC:	362.40	03/09/12		19.16		343.24	23,000	8.5	94	620	3,900		-			
MW28		12/20/05		27.11		330.91	20,000	5.7	98	670	6,500	<1	<1	<1	10.7	
TOC:	358.02	02/22/06		23.40		334.62	14,000	3.1	13	390	2,380	<1				
		06/01/06	24.57	24.60	0.03	333.44	8,100	4	17	160	1,300					
		08/22/06									LNA					
		11/14/06	28.54	28.54	0.00	329.48			·	·	LNAPL; absorbe	nt socks in well	·			·
		02/20/07									LNAPL; absorbe					
		05/22/07	26.91	26.91	0.00	331.11					LNAPL; absorbe					
		08/01/07		27.79		330.23					LNAPL; absorbe					
		02/11/08	26.85	26.86	0.01	331.16			•	•	LNAPL; absorbe	nt socks in well				
		03/04/10		25.56		332.46	7,900	<5	<5	300	970	<1	<1	<1		
	358.42	03/05/12					1				Wellhead ir	naccessible				
TOC:	358.42	03/03/12														



Table 2
Summary of Historical Groundwater Analytical Results
June 1992 through March 2012
TOC Holdings Co. Facility No. 01-176
24205 56th Avenue West
Mountlake Terrace, Washington

			Donath to	Double to		Cusumduratan										
			Depth to LNAPL ¹	Depth to Groundwater ¹	LNAPL Thickness	Groundwater Elevation ²										
w	/ell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
MW29	icii ib	12/20/05	18.40	18.61	0.21	335.65	Citi II	Denzene	Toluciic	Lary benzene	LNA		200	1 250	Total Lead	Dissolved Lead
TOC:	354.09	02/23/06		9.35		344.74	1,400	<1	<1	19	82	<1	<1	<1		
	55 1105	06/02/06		10.11		343.98	320	<1	2	3	7					
		08/22/06	17.81	18.18	0.37	336.21	320	, ,,	-		LNA		J.			
		11/14/06	22.27	22.27	0.00	331.82					LNAPL; absorbe					
		02/20/07	12.14	12.15	0.01	341.95					LNA					
		05/22/07		14.67		339.42	8,100	<1	3	250	760					
		08/01/07		18.29		335.80	20,000	260	16	820	3,100					
		02/12/08		15.85		338.24	11,000	81	<10	310	1,200					
		03/04/10		12.00		342.09	550	<1	<1	7	9	<1	<1	<1		
TOC:	358.89	03/09/12		13.68		345.21	6,700	1.5	2.7	220	840					
MW30	330.03	12/15/05		43.66		310.46	350	6.9	13	15	96	<1			4.74	
TOC:	354.12	02/22/06		40.25		313.87	<100	<1	<1	<1	<3	<1				
100.	334.12	05/31/06		38.43		315.69	<100	<1	<1	<1	<3					==
		08/24/06		41.59		312.53	<100	<1	<1	<1	<3	<1				
		11/14/06		43.41		310.71	<50	<1	<1	<1	<3					
		02/22/07		39.19		314.93	<100	<1	<1	<1	<3					==
		05/23/07		39.69		314.43	<100	<1	<1	<1	<3				<1	<1
		08/02/07				312.96	<100	<1	<1	<1	<3				<1	<1
		08/02/07		41.16 41.29		312.96	<100	<1	<1	<1	<3				<1	<1
						312.83	<100	<1	<1	<1		iust sausad			<1	<1
		05/14/08		39.86		314.26	-100	-1	-1	-1	Not sampled			-1		
TOC:	256.54	03/03/10		38.71			<100	<1	<1	<1	<3	<1	<1	<1		
TOC: MW31	356.51	03/07/12		41.15		315.36	<100	<1 420	<1 260	<1	<3				12.2	
TOC:	255.22	12/15/05		31.04		324.18	51,000			1,200	7,200	<20				
TOC:	355.22	02/22/06		29.92		325.30	18,000	160	88	440	2,930	<1				
		05/31/06		29.76		325.46	16,000	180 240	160 170	580 500	3,700 3,470	<1			3.51 6.39	
		08/24/06		30.63		324.59	22,000	240	170		ed; insufficient wa				6.39	
		11/14/06		38.48		316.74	45.000	270	120	1					0.65	
		02/21/07		30.18		325.04	15,000	270	130	490	2,800				9.65	
		05/22/07		30.68		324.54	20,000	210 390	100 160	500 810	3,400				9.48 14.4	12.0
		08/03/07		34.76		320.46	30,000				6,600				+	13.9
		02/13/08		34.73		320.49	30,000	100	92	730	5,500				44.4	39.9
		05/14/08		33.88		321.34	4.000	45	1.6	7.0	Not sampled			1.7		
		07/29/09		35.01		320.21	1,900	45	1.6	7.9	440 ve	<1	<1	1.7	45.4	45.4
TOC	257.52	03/03/10		32.76		322.46	15,000	160	68	160	2,800	<1	<1	<1	15.1	15.1
TOC:	357.52	03/07/12		36.78		320.74	2,800	7.2	5.2	23	400	<1		<1	26.5	24.6
MW32	252.05	12/20/05		23.05		-23.07	40,000	270	8,000	1,000	9,500	<1	<1	<1	17.5	
TOC:	358.05	02/23/06		19.93		-19.93	24,000	67	1,700	580	5,000	<1				
		05/31/06	20.98	21.07	0.09	337.05					LN/					
		08/22/06	24.40	24.42	0.02	333.65					LNA					
		11/14/06	27.15	27.15	0.00	330.90					LNAPL; absorbe					
		02/20/07		21.56		336.49					LNAPL; absorbe					
		05/22/07		23.29		334.76					LNAPL; absorbe					
		07/31/07		24.86		333.19		ı			ot sampled; abso					
		02/12/08		22.42		335.63	20,000	59	870	410	4,600					
		03/04/10		20.71		337.34	14,000	16	270	320	2,400	<1	<1	<1		
TOC:	359.87	03/09/12		22.71		337.16	120	3.1	11	1.1	16					
MTCA M	ethod A Clear	nup Levels for Gro	undwater⁵				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



w	ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW33		12/20/05		Dry												
TOC:	355.42	02/10/06		32.73		322.69	14,000	190	140	670	3,220	<1	<1	<1	7.44	
		05/31/06		33.78		321.64					ed; insufficient wa					
		08/22/06		34.24		321.18					ed; insufficient wa					
		11/14/06		Dry						Not sample	ed; insufficient wa		containers			
		02/20/07									LNAPL; absorbe					
		05/22/07		34.24		321.18					LNAPL; absorbe					
		07/31/07		34.33		321.09		ı	1		ot sampled; abso			_	1	1
		02/14/08		32.45		322.97	17,000	81	23	210	2,800					
		03/04/10		32.50		322.92	11,000	18	14	300	1,300	<1	<1	<1		
TOC:	358.29	03/05/12		34.35		323.94		ı	1	1	ed; insufficient wa		1	1	_	
MW34		01/27/06		7.05		348.54	2,500	<1	<1	22	90	<1	<1	<1	23.7	
TOC:	355.59	02/10/06		4.22		351.37		1	1		uarter sample col	lected January 27	7, 2006	Г		
		06/02/06		10.06		345.53	1,400	<1	3	21	29				4.17	
		08/23/06		13.96		341.63	260	<1	3	<1	<3	<1			NA ⁷	NA ⁷
		11/14/06		Dry				1	1	1	ed; insufficient wa	ter to fill sample	containers	Г		
		02/20/07		10.22		345.37	<100	<1	<1	<1	<3				<1	<1
		05/22/07		12.40		343.19	<100	<1	<1	<1	<3				<1	<1
		07/31/07		14.95		340.64		1	1	Not sample	ed; insufficient wa	ater to fill sample	containers	1	1	1
		02/13/08		10.79		344.80	<100	<1	<1	<1	<3					
		03/04/10		9.83		345.76	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10		12.00		343.59		1	1	1	Not sampled	; just gauged	1	1	1	1
TOC:	357.95	03/09/12		12.39		345.56	<100	<1	<1	<1	<3					
MW35		01/27/06		38.18		317.97	<100	<1	<1	<1	<3	<1	<1	<1	59.6	
TOC:	356.15	02/22/06		38.54		317.61				First Q	uarter sample col	lected January 27	7, 2006			
		05/31/06		39.62		316.53					ed; insufficient wa					
		08/22/06		39.64		316.51					ed; insufficient wa					
		11/14/06		Dry						Not sample	ed; insufficient wa	ater to fill sample	containers			
		02/20/07		Dry		-				Not sample	ed; insufficient wa	ater to fill sample	containers			
		05/22/07		Dry		-				Not sample	ed; insufficient wa	ater to fill sample	containers			
		07/31/07		Dry		-				Not sample	ed; insufficient wa	ater to fill sample	containers			
		02/11/08		Dry		-				Not sample	ed; insufficient wa	ater to fill sample	containers			
		03/04/10		38.86		317.29				Not sar	mpled; well did no	ot recharge after	purging			
TOC:	358.51	03/05/12		Dry				1	1	1	D		1		1	
MW36		01/27/06		40.10		315.55	<100	<1	<1	<1	<3	<1	<1	<1	43.4	
TOC:	355.65	02/22/06		40.92		314.73		ı	1	First Q	uarter sample col	lected January 27	, 2006		1	
		06/02/06		41.13		314.52	<100	<1	<1	<1	<3				193	
		08/24/06		41.58		314.07	<100	<1	<1	<1	<3	<1			NA ⁷	NA ⁷
		11/14/06		43.05		312.60				Not sample	ed; insufficient wa	ater to fill sample	containers			
		02/20/07		41.15		314.50	<100	<1	<1	<1	<3					
		05/23/07		41.35		314.30	<100	<1	<1	<1	<3					
		08/02/07		42.58		313.07	<100	<1	<1	<1	<3					
		02/14/08		41.35		314.30	<100	<1	<1	<1	<3					
		03/04/10		41.16		314.49	<100	<1	<1	<1	<3	<1	<1	<1	2.78	<1
		03/04/10		41.79		313.86		1	•	1	Not sampled	; just gauged	•	_		-T
TOC:	358.02	03/08/12		41.64		316.38	<100	<1	<1	<1	<3					
MTCA Me	ethod A Clear	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



Table 2
Summary of Historical Groundwater Analytical Results
June 1992 through March 2012
TOC Holdings Co. Facility No. 01-176
24205 56th Avenue West
Mountlake Terrace, Washington

V	Vell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead ⁵
MW37		01/27/06		14.70		341.88	<100	<1	<1	<1	<3	<1	<1	<1	<1	
TOC:	356.58	02/22/06		17.34		339.24				First C	uarter sample col	lected January 27	, 2006			
		06/02/06		15.62		340.96	<100	<1	<1	<1	<3					
		08/24/06		22.29		334.29	<100	<1	<1	<1	<3	<1				
		11/15/06		34.32		322.26	<50	<1	<1	<1	<3					
		02/21/07		16.56		340.02	<100	<1	<1	<1	<3					
		05/23/07		18.69		337.89	<100	<1	<1	<1	<3					
		08/02/07		24.79		331.79	<100	<1	<1	<1	<3					
		02/13/08		16.45		340.13	<100	<1	<1	<1	<3					
		03/04/10		13.93		342.65	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	358.96	03/08/12		19.40		339.56	<100	<1	<1	<1	<3					
MW38		01/27/06		14.69		347.34	<100	<1	<1	<1	<3	<1	<1	<1	<1	
TOC:	362.03	02/22/06		13.52		348.51		1	1		uarter sample col	lected January 27	, 2006	1		1
		05/31/06		16.85		345.18	<100	<1	<1	<1	<3					
		08/23/06		23.08		338.95	<100	<1	<1	<1	<3	<1				
		11/14/06		26.36		335.67	<50	<1	<1	<1	<3					
		02/22/07		16.43		345.60	<100	<1	<1	<1	<3					
		05/22/07		19.74		342.29	<100	<1	<1	<1	<3					
		08/01/07		22.84		339.19	<100	<1	<1	<1	<3					
		02/13/08		18.14		343.89	<100	<1	<1	<1	<3					
		03/04/10		14.80		347.23	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	364.49	03/08/12		19.32		345.17	<100	<1	<1	<1	<3					
MW39		02/02/06		41.41		312.15	<100	<1	<1	<1	<3	<1	<1	<1	<3.55	
TOC:	353.56	02/22/06		40.18		313.38		i .	1		uarter sample col	lected February 2	, 2006	1		1
		05/31/06		39.52		314.04	<100	<1	<1	<1	<3				-	
		08/24/06		40.56		313.00	<100	<1	<1	<1	<3	<1				
		11/15/06		43.40		310.16	<100	<1	<1	<1	<3					
		02/22/07		39.26		314.30	<100	<1	<1	<1	<3				-	
		05/23/07		39.80		313.76	<100	<1	<1	<1	<3				-	
		08/03/07		41.22		312.34	<100	<1	<1	<1	<3					
		02/14/08		41.22		312.34	<100	<1	<1	<1	<3					
		02/03/09		42.11	-	311.45		ı		1	Not sampled		1	1	1	1
L		03/03/10		38.76		314.80	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	355.94	03/07/12		41.14		314.80	<100	<1	<1	<1	<3					
MW40		02/03/06		41.71		312.28	<100	<1	<1	<1	<3	<1			123	
TOC:	353.99	02/22/06		40.29		313.70		1 -	1 .		uarter sample col	· · · · · ·	ĺ	I		1
		06/01/06		39.46		314.53	<100	<1	<1	<1	<3				<1	
		08/24/06		41.55		312.44	<100	<1	<1	<1	<3	<1				
		11/14/06		43.45		310.54	<100	<1	<1	<1	<3				<1	
		02/21/07		39.22		314.77	<100	<1	<1	<1	<3					
		05/24/07		38.75		315.24	<100	<1	<1	<1	<3					
		08/03/07		41.21		312.78	<100	<1	<1	<1	<3				<1	<1
		02/14/08		41.30		312.69	<100	<1	<1	<1	<3				<1	<1
	256	03/03/10		38.77		315.22	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	356.37	03/07/12		41.21		315.16	<100	<1	<1	<1	<3					
IVI I CA M	iethod A Cleai	nup Levels for Gro	oundwater				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



			Depth to LNAPL ¹	Depth to Groundwater ¹	LNAPL Thickness	Groundwater Elevation ²										
W	/ell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC⁴	Total Lead ⁵	Dissolved Lead ⁵
MW41		02/04/06		Dry						Not sampl	ed; insufficient wa	ater to fill sample	containers			
TOC:	354.02	02/22/06	-	40.35		313.67				•	ed; insufficient w					
		05/31/06		40.22		313.80				Not sampl	ed; insufficient wa	iter to fill sample	containers			
		08/22/06	-	40.22		313.80				Not sampl	ed; insufficient wa	iter to fill sample	containers			
		11/14/06		40.22		313.80				Not sampl	ed; insufficient wa	iter to fill sample	containers			
		02/20/07		40.23		313.79				Not sampl	ed; insufficient wa	iter to fill sample	containers			
		05/22/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		07/31/07	-	Dry						Not sampl	ed; insufficient wa	ater to fill sample	containers			
		02/11/08		Dry						Not sampl	ed; insufficient w	ater to fill sample	containers			
		03/04/10		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
TOC:	356.02	03/05/12	-	39.89		316.13					D	ry				
MW42		02/04/06	-	Dry						Not sampl	ed; insufficient wa	ater to fill sample	containers			
TOC:	354.08	02/22/06	-	39.75		314.33				Not sampl	ed; insufficient wa	ater to fill sample	containers			
		05/31/06	-	39.63		314.45				Not sampl	ed; insufficient w	ater to fill sample	containers			
		08/22/06		Dry							ed; insufficient wa					
		11/14/06		39.71		314.37				Not sampl	ed; insufficient wa	iter to fill sample	containers			
		02/20/07		39.67		314.41					ed; insufficient wa					
		05/22/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		03/04/10		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
TOC:	356.42	03/05/12		Dry							D	•				
MW43		05/31/06		37.43		319.15				Not sampl	ed; insufficient wa	iter to fill sample	containers			
TOC:	356.58	08/22/06		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		11/14/06		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		02/20/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		05/22/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		07/31/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		03/04/10		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
TOC:	358.89	03/05/12		Dry							ed; insufficient w	· ·				
MW44		05/31/06		38.56		314.08				Not sampl	ed; insufficient w	iter to fill sample	containers			
TOC:	352.64	08/22/06		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		11/14/06		Dry						•	ed; insufficient wa					
		02/20/07		Dry						Not sampl	ed; insufficient w	iter to fill sample	containers			
		05/22/07		Dry						Not sampl	ed; insufficient w	iter to fill sample	containers			
		07/31/07		Dry						Not sampl	ed; insufficient w	ater to fill sample	containers			
		03/04/10		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
TOC:	354.96	03/05/12		Dry				1	1	1	D	ry	1	1		1
MW45		05/31/06		Dry												
TOC:	354.24	08/24/06		37.86		316.38	57,000	920	180	1,900	13,700	<1				
		11/14/06		Dry				1		Not sampl	ed; insufficient wa	iter to fill sample	containers	1		1
		02/21/07		37.22		317.02	39,000	700	150	870	10,000					
		05/24/07		37.59		316.65	39,000	470	120	760	9,800					
		08/02/07		38.25		315.99	40,000	430	67	270	11,000					
		02/11/08		37.90		316.34	45,000	76	36	430	8,900					
		05/14/08		37.82		316.42					Not sampled					
		07/29/09		38.06		316.18		1	1		Not sampled	; just gauged	1	_	_	1
		03/02/10		37.16		317.08	23,000	54	23	310	3,700	<1	<1	<1		
TOC:	357.06	03/05/12		38.59		318.47					ed; insufficient wa					
MW46		12/13/06		Dry				1	1		ed; insufficient wa	iter to fill sample	containers	1	1	1
TOC:	354.64	02/21/07		39.98		314.66	1,100	14	7	13	23					
		05/24/07		40.60		314.04	120	<1	<1	<1	4					
		07/31/07		Dry						Not sampl	ed; insufficient wa	iter to fill sample	containers			
		02/11/08		Dry				•	1	Not sampl	ed; insufficient wa	ter to fill sample	containers	_	_	•
		03/03/10		40.31		314.33	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	356.54	03/05/12		42.42		314.12			•	Not sampl	ed; insufficient wa	iter to fill sample	containers	_	_	
MTCA M	ethod A Clear	nup Levels for Gro	undwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



w	Vell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead ⁵	Dissolved Lead ⁵
MW47		12/13/06		Dry				•	•	Not sampl	ed; insufficient wa	ater to fill sample	containers	•	•	•
TOC:	352.96	02/20/07		41.50		311.46					ed; insufficient wa					
		05/22/07		Dry							ed; insufficient wa					
	Ē	07/31/07		Dry						· · · · · · · · · · · · · · · · · · ·	ed; insufficient wa					
	•	02/11/08		Dry							ed; insufficient wa					
	=	03/04/10		41.00		311.96	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	355.51	03/05/12		Dry							D					
MW48	555.51	12/13/06	45.28	46.61	1.33	307.42					LN					
TOC:	352.97	02/20/07	40.61	41.98	1.37	312.09					LNA					
	552.57	05/22/07	40.75	42.39	1.64	311.89					LNA					
	=	07/31/07	42.42	43.88	1.46	310.26					LNA					
	-	02/11/08	42.42	43.97	0.99	309.79					LN					
	-									N-+						
	-	05/06/08	41.21	41.97	0.76	311.61					ampled; just gaug					
		05/08/08	40.98	41.00	0.02	311.99					ampled; just gaug					
		08/19/08	42.60	43.41	0.81	310.21					ampled; just gaug					
		09/12/08	42.98	43.41	0.43	309.90					ampled; just gaug					
	-	09/18/08	43.34	43.85	0.51	309.53					ampled; just gaug					
	-	10/03/08	43.63	43.81	0.18	309.30					ampled; just gaug					
	-	10/09/08		43.91	3	309.06					ampled; just gaug					
		11/07/08	44.25	45.46	1.21	308.48				Not s	ampled; just gaug	ged for LNAPL rec	overy			
	_	11/21/08	44.39	45.48	1.09	308.36				Not s	ampled; just gaug	ged for LNAPL rec	overy			
	_	12/10/08	44.66	45.73	1.07	308.10				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		12/16/08	44.74	45.65	0.91	308.05				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		12/28/08	44.82	45.54	0.72	308.01				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		12/31/08	44.88	45.23	0.35	308.02				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		01/23/09	44.33	45.29	0.96	308.45					ampled; just gaug					
		01/30/09	44.12	44.69	0.57	308.74					ampled; just gaug					
	Ē	02/10/09	44.01	44.30	0.29	308.90					ampled; just gaug					
	•	02/24/09	43.85	44.04	0.19	309.08					ampled; just gaug					
	•	03/10/09	43.69	44.00	0.31	309.22					ampled; just gaug					
	-	03/11/09	43.78	43.81	0.03	309.18					ampled; just gaug					
	-	03/12/09	43.70	43.71	0.01	309.27					ampled; just gaug		-			
	-	03/13/09	43.50	43.51	0.01	309.47					ampled; just gaug					
	-	04/10/09	43.20	43.21	0.01	309.77					ampled; just gaug		•			
	-	04/30/09	43.20	43.44		309.53					ampled; just gaug		-			
	-	06/12/09	42.57	42.58	0.01	310.40										
	ŀ		43.77	44.09							ampled; just gaug					
	-	08/25/09			0.32	309.14					ampled; just gaug					
	-	09/29/09	44.48	45.11	0.63	308.36					ampled; just gaug					
	-	10/15/09	44.90	45.59	0.69	307.93					ampled; just gaug					
		11/24/09	44.48	44.68	0.20	308.45					ampled; just gaug					
		01/18/10	42.35	42.45	0.10	310.60					ampled; just gaug					
		02/26/10	40.50	40.63	0.13	312.44					ampled; just gaug					
	-	03/01/10	40.43	40.56	0.13	312.51					ampled; just gaug					
	<u> </u>	04/12/10	39.69	39.80	0.11	313.26					ampled; just gaug					
		05/07/10	39.72	39.83	0.11	313.23					ampled; just gaug					
]	06/21/10	40.33	40.64	0.31	312.58					ampled; just gaug					
	_	07/02/10	-		0.04						ampled; just gaug					
		08/30/10	42.01	42.30	0.29	310.90					ampled; just gaug					
		09/10/10	42.28	42.42	0.14	310.66					ampled; just gaug					
		10/11/10	43.00	43.30	0.30	309.91				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		11/11/10	43.52	43.87	0.35	309.38				Not s	ampled; just gaug	ged for LNAPL rec	overy			
		12/06/10	43.73	44.00	0.27	309.19					ampled; just gaug					
		12/15/10										rmed at MW57				
	ļ	03/18/11		39.04		313.93				Not s	ampled; just gaug		overy			
	ļ	05/02/11		37.91		315.06					ampled; just gaug		•			
TOC:	355.45	03/08/12		43.59		311.86	37,000	220	140	770	5,400 ^{ve}					
		nup Levels for Gro		.5.55	I	521.00	1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE

P:\0440 TOC Holdings Co\01-176 Mountake Terrace\Technical\Tables\2012\2012\212\2112\116-6_2012\116-



			Depth to	Depth to	LNAPL	Groundwater										
10	ell ID	Sample Date	LNAPL ¹ (feet)	Groundwater ¹ (feet)	Thickness (feet)	Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-henzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead ⁵	Dissolved Lead ⁵
MW49	TEIL ID	12/20/06		45.72		308.33	2,200	24	2	46	250					
TOC:	354.05	02/21/07		41.61		312.44	14,000	380	60	750	2,700					
100.	334.03	05/24/07		41.85		312.20	21,000	440	62	770	3,400					
		08/03/07		43.32		310.73	12,000	360	29	580	1,300				8.38	
		02/14/08		43.90		310.15	160	<1	<1	<1	7	==				
		02/05/09		43.90		310.15	100	11	11	11	Not sampled				1	.1
		03/04/10		41.23		312.82	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	357.06	03/08/12		44.05		313.01	<100	<1	<1	<1	<3					
MW50	337.00	08/03/07		36.22		323.49	<100	<1	<1	<1	<3				11.6	NA ⁷
TOC:	359.71	02/14/08		34.56		325.15	<100	<1	<1	<1	<3					
	555.71	03/02/10		32.23		327.48	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	362.11	03/08/12		35.03		327.08	<100	<1	<1	<1	<3					
MW51	502.11	08/03/07		41.58		308.76	<100	<1	<1	<1	<3				<1	
TOC:	350.34	02/13/08		41.78		308.56	<100	<1	<1	<1	<3					
	550.5	05/14/08		40.67		309.67	1200			1	Not sampled		I			<u>.</u>
		02/05/09		42.47		307.87					Not sampled					
		03/02/10		39.73		310.61	<100	<1	<1	<1	6	<1	<1	<1		
		10/12/10		41.60		308.74	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	352.71	03/08/12		41.82		310.89	<100	<1	<1	<1	<3					
MW52	552.71	08/03/07		Dry			1200				led; insufficient wa	iter to fill sample	containers		<u>.</u>	-
TOC:	353.28	02/14/08		Dry							led; insufficient wa					
		03/02/10		41.31		311.97	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	355.65	03/05/12		Dry					·		Di		<u> </u>			.1
MW53		08/03/07		43.32		314.15	<100	<1	<1	<1	<3				5.02	<1
TOC:	357.47	02/12/08		43.60		313.87	<100	<1	<1	<1	<3					
		03/03/10		41.10		316.37	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	359.88	03/07/12		43.58		316.30	<100	<1	<1	<1	<3					
MW54		08/03/07		13.91		341.66	<100	<1	<1	<1	<3				<1	<1
TOC:	355.57	02/12/08		11.80		343.77	<100	<1	<1	<1	<3				<1	<1
		05/14/08		12.41		343.16		•	•	•	Not sampled	; just gauged	•	•	•	-
		03/03/10		10.25		345.32	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10		11.36		344.21		•	•	•	Not sampled	; just gauged	•	•	•	-
TOC:	357.99	03/07/12		12.74		345.25	<100	<1	<1	<1	<3					
MW55		08/03/07		43.55		310.62	<100	<1	<1	<1	<3				2.99	<1
TOC:	354.17	02/13/08		44.02		310.15	<100	<1	<1	<1	<3					
		03/04/10		40.62		313.55	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	356.58	03/08/12		44.18		312.40	<100	<1	<1	<1	<3					
MW56		08/03/07		44.19		310.93	<100	4	<1	<1	<3				<1	<1
TOC:	355.12	02/14/08		44.52		310.60	<100	<1	<1	<1	<3					
		05/14/08		43.00		312.12		•	•	•	Not sampled	; just gauged	•	•	•	-
		02/03/09		45.40		309.72	<100	<1	<1	<1	<2	<1				
		03/03/10		41.88		313.24	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	357.55	03/06/12		44.63		312.92	<100	<1	<1	<1	<3					
MW57		08/03/07		44.16		310.19	18,000	360	37	320	3,900				3.17	3.33
TOC:	354.35	02/13/08		44.59		309.76	10,000	150	21	370	1,700					
		05/14/08		42.87		311.48		•	•	•	Not sampled	; just gauged	•	•	•	•
		03/03/10		41.80		312.55	14,000	240	51	610	3,600	<1	<1	2.9		
		10/12/10		44.50		309.85		•	•	•		; just gauged	•	•	•	•
TOC:	356.34	03/07/12		44.38		311.96	2,100	9.7	2.3	87	160					
		nup Levels for Gro	undwater ⁶			•	1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



			Depth to	Depth to	LNAPL	Groundwater										
			LNAPL ¹	Groundwater ¹	Thickness	Elevation ²									_	
	/ell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE⁴	EDB ⁴	EDC ⁴	Total Lead ⁵	Dissolved Lead ⁵
MW58		08/02/07		43.25		309.76	<100	2	<1	4	3				1.37	<1
TOC:	353.01	02/13/08	-	43.55		309.46	360	5	1	13	12					
		05/14/08		41.93		311.08			1		Not sampled					1
		03/03/10		40.88		312.13	<100	<1	<1	<1	<3	<1	<1	2.4		
		10/12/10		43.52		309.49			1	_	Not sampled				1	
TOC:	355.43	03/07/12		43.74		311.69	<100	<1	<1	<1	<3					
MW59	254.42	08/02/07		43.26		310.87	140	<1	<1	<1	<3				3.04	<1
TOC:	354.13	02/14/08		43.66		310.47	<100	<1	<1	<1	<3					
		05/14/08		42.01		312.12	-100		1		Not sampled				1	1
		02/03/09		45.51		308.62	<100	<1	<1	<1	<2	<1				
TOC	250.50	03/03/10		40.85		313.28	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	356.56	03/06/12		43.70 43.52		312.86	<100	<1 <1	<1 <1	<1	<3				20.5	1.94
MW60	256.24	08/03/07		43.52		312.69	<100			<1						+
TOC:	356.21	02/14/08				312.33	<100	<1	<1 <1	<1	<3 <3				<1	<1
TOC	358.61	03/04/10 03/08/12		41.64 44.03		314.57 314.58	<100 <100	<1 <1	<1	<1 <1	<3	<1	<1	1.1	<1	<1
TOC: MW61	358.01	08/03/07		13.18		314.58	<100	<1	<1	<1	<3		-		1.34	<1
TOC:	354.83	08/03/07		9.65		345.18	<100	<1	<1	<1	<3				1.54	
100.	334.63	03/04/10		8.21		346.62	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	357.24	03/04/10		10.56		346.68	<100	<1	<1	<1	<3					
MW62	337.24	08/03/07		14.47		343.65	<100	<1	<1	<1	<3		-		<1	<1
TOC:	358.12	02/12/08		10.19		347.93	<100	<1	<1	<1	<3		-			
100.	330.12	03/03/10		8.64		349.48	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	360.55	03/03/10		12.05		348.50	<100	<1	<1	<1	<3					
MW63	300.33	08/03/07		42.85		309.88	190	9	<1	8	14				8.21	2.08
TOC:	352.73	02/13/08		43.11		309.62	240	5	<1	9	11				6.21	2.08
100.	332.73	05/14/08		41.56		311.17	240		\1		Not sampled					1
		02/03/09		44.13		308.60					Not sampled					
		03/02/10		40.51		312.22	<100	<1	<1	<1	<3	<1	<1	<1		
		10/12/10		43.14		309.59	1100		1	1 1	Not sampled		11	1	1	
TOC:	355.14	03/08/12		43.34		311.80	<100	<1	<1	<1	<3					
MW64	555.11	08/02/07		40.51		312.31	<100	<1	<1	<1	<3				<1	<1
TOC:	352.82	02/13/08		40.39		312.43	<100	<1	<1	<1	<3	==				
	332.02	05/14/08		39.34		313.48	1200		1	-1	Not sampled	: iust gauged		1	1	1
		02/03/09		41.59		311.23					Not sampled					
		03/02/10		38.09		314.73	<100	<1	<1	<1	<3	<1	<1	<1		
		10/12/10		40.76		312.06					Not sampled		· · ·		1	1
TOC:	355.22	03/08/12		40.59		314.63	<100	<1	<1	<1	<3					
MW65		05/14/08		40.37		310.37	<100	8.6	<1	<1	<3				2.69	<1
TOC:	350.74	02/03/09		42.89		307.85	<100	6.1	<1	<1	<2	<1				
		03/02/10		39.32		311.42	<100	5	5	1	6	<1	<1	<1		
		07/08/10		39.65		311.09					Not sampled	; just gauged				
		10/12/10		41.92		308.82					Not sampled	; just gauged				
TOC:	353.12	03/07/12		42.14		310.98	<100	<1	<1	<1	<3	<1		<1		
MW66		05/14/08		41.27		312.15	<100	<1	<1	<1	<3				2.00	<1
TOC:	353.42	03/03/10		40.16		313.26	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10		40.50		312.92					Not sampled	; just gauged				
TOC:	355.82	03/07/12		42.97		312.85	<100	<1	<1	<1	<3					
MW67		05/14/08		12.79		340.58	<100	<1	<1	<1	<3				<1	<1
TOC:	353.37	03/01/10		11.71		341.66	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10		12.88		340.49		-	-		Not sampled	; just gauged		-	-	
TOC:	355.76	03/06/12		14.43		341.33	<100	<1	<1	<1	<3					
1	othod A Class	nup Levels for Gro	undwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



Table 2
Summary of Historical Groundwater Analytical Results
June 1992 through March 2012
TOC Holdings Co. Facility No. 01-176
24205 56th Avenue West
Mountlake Terrace, Washington

			Depth to	Depth to Groundwater ¹	LNAPL Thickness	Groundwater Elevation ²										
W	/ell ID	Sample Date	(feet)	(feet)	(feet)	(feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE ⁴	EDB ⁴	EDC ⁴	Total Lead⁵	Dissolved Lead ⁵
MW68		05/14/08		12.54		340.23	<100	<1	<1	<1	<3				<1	<1
TOC:	352.77	03/01/10		11.29		341.48	<100	<1	<1	<1	<3	<1	<1	<1		
		07/08/10		12.60		340.17					Not sampled	; just gauged				
TOC:	355.14	03/06/12		14.10		341.04	<100	<1	<1	<1	<3					
MW69		05/14/08		41.59		310.37	15,000	14	1.3	380	1,028				9.01	<1
TOC:	351.96	02/03/09		44.20		307.76	19,000	9.4	1.5	450	2,000	<1				
		02/05/09	-	44.01		307.95		Y	ı	_	Not sampled	; just gauged	γ	1	ή	1
		07/30/09		43.25		308.71	6,800	6.7	1.2	11	579	<1	<1	<1		
		03/02/10		40.56		311.40	8,200	11	12	250	1,100	<1	<1	<1		
TOC:	353.62	03/06/12		42.74		310.88	5,400	1.5	<1	100	440	<1		<1		
MW70		05/14/08		41.70		310.66	160	9.9	<1	<1	<3				3.23	<1
TOC:	352.36	02/03/09		44.22		308.14	390	20	<1	<1	15	<1				
		03/02/10		40.62		311.74	<100	7	<1	<1	<3	<1	<1	<1		
		07/08/10	-	40.90		311.46					Not sampled					
		10/12/10		43.23		309.13		7			Not sampled	; just gauged	Υ			1
TOC:	353.84	03/06/12		42.47		311.37	280	7.6	<1	<1	4.1	<1		<1		
MW71		10/09/08		15.32		330.28	240,000	38,000	52,000	3,300	16,800	<50	<50	<50	13.3	14.1
TOC:	345.60	07/29/09	13.98	15.34	1.36	331.35					LNA	APL				
		03/01/10	10.42	10.91	0.49	335.08		1		-	LNA	APL	1		_	1
MW72		10/09/08		17.90		327.17	160,000	13,000	34,000	3,200	18,600	<10	<10	<10	2.76	2.99
TOC:	345.07	07/29/09		16.67		328.40	98,000	9,600	24,000 ^{ve}	1,900	15,700	<1	1.4	<1		
		03/01/10		13.03		332.04	520	22	45	14	37	<1	<1	<1		
MW73		10/09/08		39.88		305.15	64,000	12,000	5,900	1,100	6,400	190	<10	<10	2.36	<1
TOC:	345.03	07/29/09		39.28		305.75	83,000	18,000 ^{ve}	8,300	720	3,800	71	<1	<1		
		03/01/10		36.57		308.46	79,000	20,000	7,400	1,700	6,900	120	<1	<1		
MW74		10/09/08		39.35		306.27		1			led; insufficient wa		containers		T	1
TOC:	345.62	03/01/10		36.91		308.71	75,000	26,000	3,500	860	3,800	720	<1	<1		
MW75		11/07/08		44.64		307.79	<100	<1	<1	<1	<2				19.9	<1
TOC:	352.43	03/02/10		40.44		311.99	<100	<1	<1	<1	<3	<1	<1	<1	<1	<1
TOC:	354.84	03/07/12		43.47		311.37	<100	<1	<1	<1	<3				<1	<1
MW76		02/03/09		40.18		309.18	<100	<1	<1	<1	<2	<1			3.46	<1
TOC:	349.36	03/01/10		37.28		312.08	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	351.74	07/08/10		37.75		313.99						; just gauged				
		10/12/10		40.43		311.31		1		1	Not sampled	; just gauged	1		T	1
		03/06/12		40.24		311.50	<100	<1	<1	<1	<3	<1		<1		
MW77		02/03/09		40.09		307.53	<100	<1	<1	<1	<2	<1			5.21	<1
TOC:	347.62	03/01/10		36.51		311.11	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	349.98	07/08/10		36.91		313.07		1		1		; just gauged	T			1
		10/12/10		39.22		310.76	<100	<1	<1	<1	<2	<1	<1	<1	<1	<1
<u> </u>		03/06/12		39.20		310.78	<100	<1	<1	<1	<3	<1		<1		
MW78		02/03/09		37.32		310.26	<100	<1	<1	<1	<2	<1			2.61	<1
TOC:	347.58	03/01/10		34.57		313.01	<100	<1	<1	<1	<3	<1	<1	<1		
TOC:	349.97	10/12/10		37.30		312.67		1	T	1	Not sampled		ı			1
<u> </u>		03/06/12		36.88		313.09	<100	<1	<1	<1	<3	<1		<1		
MW79		07/08/10		13.41		340.62	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	354.03	03/07/12		13.39		340.64	<100	<1	<1	<1	<3					
MW80		07/08/10		14.22		339.66	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	353.88	10/12/10		18.69		335.19		1	T	1	Not sampled	; just gauged	1	_		
		03/07/12		14.30		339.58	<100	<1	<1	<1	<3					
MW81		07/08/10		40.78		314.88	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	355.66	10/12/10		43.02		312.64		1	T	1		; just gauged	1	_		
		03/06/12		43.22		312.44	<100	<1	<1	<1	<3					
MTCA M	ethod A Clea	nup Levels for Gro	oundwater⁵				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE



w	'ell ID	Sample Date	Depth to LNAPL ¹ (feet)	Depth to Groundwater ¹ (feet)	LNAPL Thickness (feet)	Groundwater Elevation ² (feet)	GRPH ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Total Xylenes ⁴	MTBE⁴	EDB ⁴	EDC⁴	Total Lead⁵	Dissolved Lead⁵
MW82		07/08/10		26.74		328.91	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	355.65	10/12/10		29.64		326.01			1	Ť	Not sampled	; just gauged	1	T	ſ	1
		03/07/12		28.58		327.07	<100	<1	<1	<1	<3					
MW83		07/08/10		19.56		334.02	<100	<0.35	<1	<1	<2	<1	<1	<1	16.1	<1
TOC:	353.58	10/12/10		28.74		324.84					Not sampled	; just gauged				
		11/21/11		1		1		DECOMMISSI	ONED (REP	LACED WITH	MW100)	1	1		1	
MW84		10/12/10		44.29		309.38	1,900	0.71	<1	17	48	<1	<1	<1	<1	<1
TOC:	353.67	03/07/12		42.66		311.01	680	<1	1.6	5.0	14	<1		<1		
MW85		10/11/10		1		WEL	L DAMAGED	DURING IN	STALLATION	, REPAIRED	ON NOVEMB	ER 28, 201	1	T	1	
TOC:	351.34	03/06/12		40.48		310.86	<100	3.1	<1	<1	<3	<1		<1	<1	<1
MW86		10/12/10		41.89		310.89	1,100	1.9	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	352.78	03/06/12		42.02		310.76	140	3.8	<1	<1	<3	<1		<1		
MW87		10/12/10		39.03		310.75	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	349.78	03/06/12		38.89		310.89	<100	<1	<1	<1	<3	<1		<1		
MW88		10/12/10		22.11		329.56	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	351.67	03/06/12		14.91		336.76	<100	<1	<1	<1	<3					
MW89		10/12/10		42.66		311.23	<100	<0.35	<1	<1	<2	<1	<1	<1	<1	<1
TOC:	353.89	03/06/12		42.89		311.00	<100	<1	<1	<1	<3	<1		<1		
MW90	262.74	03/05/12	24.66	24.75	0.09	338.03					LNA	N DI				
TOC: MW91	362.71	03/05/12	24.66	24.75	0.09	338.03			1		LINA	APL	I			
TOC:	362.58	03/08/12		24.87		337.71	15,000	36	95	410	3,100				15.9	<1
MW92							·									
TOC:	358.32	03/06/12		45.45		312.87	<100	<1	<1	<1	<3				4.19	<1
MW93		/ /									_					
TOC: MW94	355.73	03/06/12		43.00		312.73	<100	<1	<1	<1	<3				5.60	<1
TOC:	358.24	03/06/12		45.13		313.11	<100	<1	<1	<1	<3				<1	<1
MW95	330.24	03/00/12		43.13		313.11	1100	1	11	11	1,5				11	11
TOC:	354.42	03/07/12		42.95	-	311.47	<100	<1	<1	<1	<3	<1		<1	2.74	<1
MW96																
TOC:	355.83	03/07/12		44.01		311.82	<100	<1	<1	<1	<3	<1		<1	11.4	<1
MW97 TOC:	354.64	03/07/12		43.18		311.46	420	9.4	<1	<1	3.4	<1		<1	2.07	<1
MW98	354.04	03/07/12		45.10		311.40	420	9.4	<u> </u>	\1	5.4	<1		<u> </u>	2.07	<u> </u>
TOC:	354.49	03/08/11		43.04		311.45	3,800	13	4.6	56	130	<1		<1	1.87	<1
MW99		1					,		İ							
TOC:	353.42	03/06/12		42.47		310.95	<100	2.1	<1	<1	<3	<1		<1	1.08	<1
MW100 TOC:	355.81	03/06/12		15.73		340.08	<100	<1	<1	<1	<3				50.6	1.15
MW101	333.01	05/00/12		15.75		540.00	1100	- 1		``	,5				30.0	1.15
TOC:	351.92	03/06/12		40.90		311.02	<100	<1	<1	<1	<3	<1		<1	22.6	<1
MTCA Me	ethod A Clea	nup Levels for Gro	oundwater ⁶				1,000/800 ^b	5	1,000	700	1,000	20	0.01	5	15	NE

Red denotes concentration exceeds MTCA Method A cleanup level.

Samples analyzed by North Creek Analytical, Inc., of Bothell, Washington. Data collected prior to 7/8/05 provided

Calibration range. A dilution is required to obtain an accurate quantification of the analyte. by previous consultants. Data collected since December 2005 analyzed by Friedman & Bruya, Inc. of Seattle,

 $^{1}\mbox{Depth}$ to water and LNAPL as measured from a fixed spot on the well casing rim.

² Groundwater elevation measured relative to a temporary benchmark (data from previous consultants). Since July 2005, ground water elevations corrected for LNAPL thickness, assuming specific gravities of 0.80 for a mixture of a summary of the contraction ogasoline and diesel, and 1.0 for groundwater.

³Analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPH-Gx.

⁴Analyzed by EPA Method 8260B, 8021B, or 8260C.

⁵Analyzed by EPA Method 200.8.

 6 MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the

Washington Administrative Code, revised November 2007.

⁷Insufficient recharge to fill specified sample container.

 $^{\rm a} Monitoring \ well \ converted \ to \ a \ remediation \ well; \ TOC \ elevation \ change \ presented \ where \ appropriate.$

 $^b 1,\!000~\mu g/L$ when benzene is not present and 800 $\mu g/L$ when benzene is present.

Laboratory Notes:

ABBREVIATIONS:

-- = not measured/not applicable < = not detected at concentration exceeding the laboratory reporting limit

μg/L = micrograms per liter

Dry = groundwater not encountered in well

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane

EPA = U.S. Environmental Protection Agency GRPH = gasoline-range petroleum hydrocarbons

LNAPL = light non-aqueous phase liquid

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NA = not applicable per referenced footnote number

NE = Cleanup level not established for indicated compound Sheen = iridescence on water surface indicative of LNAPL

TOC = top of casing (elevations for monitoring wells MW01 through MW25 from previous consultants)

Trace = less than 0.01 of measurable LNAPL



Cample	Duor subu	Sample		Lead Sc	avengers					
Sample Location	Property Owner	Sample Date	Ethanol ¹	TBA ¹	MTBE ¹	ETBE ¹	TAME ¹	DIPE ¹	EDB ¹	EDC ¹
MW01	TOC	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1
		02/24/06	<1,000	<50	<1	<1	<1	<1		
		08/24/06	<1,000	<50	<1	<1	<1	<1		
		00/21/00	12,000	D			I O N E	D	1	ļ.
MW02	тос	12/21/05	<1,000	<200	<1	<1	<1	<1	<1	<1
		02/23/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1.000	<50	<1	<1	<1	<1		
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW03	TOC	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
IVIVVU3	100	02/22/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1.000	<50	<1	<1	<1	<1		
			,					†		
MW04	DOW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
WWU4	ROW	02/22/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1,000	<50	<1	<1	<1	<1		
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW05	ROW	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		02/22/06	<1,000	<50	<1	<1	<1	<1		
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW06	TOC	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		02/24/06	<1,000	<50	<1	<1	<1	<1		
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW07	TOC/Farmasonis			D	E C O M	MISS	I O N E	D		ı
MW08	ROW	02/22/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1,000	<50	<1	<1	<1	<1		
MW09		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1
	TOC	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		02/23/06	<1,000	<50	<1	<1	<1	<1		
		08/24/06	<1,000	<50	<1	<1	<1	<1		
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW10	TOC	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1
		02/24/06	<1,000	<50	<1	<1	<1	<1		
		08/24/06	<1,000	<50	<1	<1	<1	<1		
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW11	тос	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		12/21/05	<1,000	<200	<1	<1	<1	<1	<1	<1
		02/22/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1,000	<50	<1	<1	<1	<1		
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW12	ROW	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
		02/23/06	<1,000	<50	<1	<1	<1	<1		
		08/23/06	<1,000	<50	<1	<1	<1	<1		
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW13	ROW	02/02/06	<1,000	<50	<1	<1	<1	<1	<1	3.5
-	_	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW14	TOC/Farmasonis	,,	,			MISS				
MW15	TOC	03/01/10					APL			
MW16	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW17	TOC/Farmasonis	, -=, -0	_,000			MISS				
		03/04/10	×1.000						4	-4
MW18	TOC	, ,	<1,000	<50	<1	<1	<1	<1	<1	<1
MW19	тос	02/24/06	<1,000	<50	<1	<1	<1	<1		
		08/24/06	<1,000	<50	<1	<1	<1	<1		
	===	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1
MW20	TOC	12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1
		02/23/06	<1,000	<50	<1	<1	<1	<1		
	<u> </u>	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<5
ITCA Metho	d Δ ²		NE	NE	20	NE	NE	NE	0.01	5



Sample	Property	Sample			Охуд	enates			Lead Scavengers		
Location	Owner	Date	Ethanol ¹	TBA ¹	MTBE ¹	ETBE ¹	TAME ¹	DIPE ¹	EDB ¹	EDC ¹	
MW21	TOC	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
		12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1	
		02/23/06	<1,000	<50	<1	<1	<1	<1			
		08/23/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW22	TOC	09/26/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
		12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1	
		02/24/06	<1,000	<50	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW23	TOC	02/23/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW24	TOC	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
		02/22/06	<1,000	<50	<1	<1	<1	<1			
		08/23/06	<1,000	<50	<1	<1	<1	<1			
		02/03/09			<1						
		07/30/09		<50	<1	<1	<1	<1	<1	<1	
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW25	TOC	09/27/05	<150	<50.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
25	.50	12/21/05	<1,000	<200	<1	<1	<1	<1	<1	<5	
		02/23/06	<1,000	<50	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW26	тос	12/21/05	<1,000	<200	<1	<1	<1	<1	<1	<1	
1010020	100	02/23/06	<1,000	<50	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW27	TOC	12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1	
IVI VV Z 7	100	02/22/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
NAVA/20	TOC						<1		•		
MW28	100	12/20/05	<1,000	<200	<1	<1		<1	<1	<1	
		02/24/06	<1,000	<50	<1	<1	<1	<1			
1414/20	TOC	03/04/10	<1,000	<50	<1	<1	<1	<1 <1	<1	<1	
MW29	тос	02/23/06	<1,000	<50	<1	<1	<1	†			
14420	TOC/5	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW30	TOC/Farmasonis	12/15/05	<1,000	<200	<1	<1	<1	<1			
		02/23/06	<1,000	<50	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW31	TOC/Farmasonis	12/15/05	<20,000	<4,000	<20	<20	<20	<20			
		02/23/06	<1,000	<50	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		07/29/09		<50	<1	<1	<1	<1	<1	1.7	
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW32	TOC	12/20/05	<1,000	<200	<1	<1	<1	<1	<1	<1	
		02/23/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW33	TOC	02/10/06	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW34	TOC	01/27/06	<1,000	<50	<1	<1	<1	<1	<1	<1	
		08/23/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW35	TOC	01/27/06	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/04/10									
MW36	TOC	01/27/06	<1,000	<50	<1	<1	<1	<1	<1	<1	
		08/24/06	<1,000	<50	<1	<1	<1	<1			
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
1TCA Metho	d A ²		NE	NE	20	NE	NE	NE	0.01	5	



Sample	Property	Sample		Lead Sc	Lead Scavengers								
Location	Owner	Date	Ethanol ¹	TBA ¹	MTBE ¹	ETBE ¹	TAME ¹	DIPE ¹	EDB ¹	EDC ¹			
MW37	тос	01/27/06	<1,000	<50	<1	<1	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1					
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW38	TOC	01/27/06	<1,000	<50	<1	<1	<1	<1	<1	<1			
		08/23/06	<1,000	<50	<1	<1	<1	<1					
		03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW39	TOC/Farmasonis	02/02/06	<1,000	<50	<1	<1	<1	<1	<1	<1			
		08/24/06	<1,000	<50	<1	<1	<1	<1					
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW40	TOC/Farmasonis	08/24/06	<1,000	<50	<1	<1	<1	<1					
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW41	TOC/Farmasonis	03/04/10				D	RY						
MW42	TOC/Farmasonis	03/04/10				D	RY						
MW43	ROW	03/04/10				D	RY						
MW44	ROW	03/04/10				D	RY						
MW45	ROW	08/24/06	<1,000	<50	<1	<1	<1	<1					
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW46	ROW	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW47	ROW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW48	ROW	03/01/10				LN	APL		•				
MW49	ROW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW50	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW51	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
		10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW52	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW53	ROW	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW54	TOC/Farmasonis	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW55	ROW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW56	TOC/Farmasonis	02/03/09			<1								
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW57	TOC/Farmasonis	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	2.9			
MW58	TOC/Farmasonis	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	2.4			
MW59	TOC/Farmasonis	02/03/09			<1								
		03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW60	ROW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	1.1			
MW61	ROW	03/04/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW62	ROW	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW63	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW64	ROW	03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW65	Drake	02/03/09			<1								
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
		03/07/12			<1					<1			
MW66	TOC/Farmasonis	03/03/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW67	Drake	03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW68	Drake	03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
MW69	Drake	02/03/09			<1								
		07/30/09		<50	<1	<1	<1	<1	<1	<1			
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
		03/06/12			<1					<1			
MW70	Drake	02/03/09			<1								
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1			
		03/06/12			<1					<1			
TCA Metho	od A ²		NE	NE	20	NE	NE	NE	0.01	5			



Commis	Property	Sample		Lead Scavengers							
Sample Location	Owner	Date	Ethanol ¹	TBA ¹	MTBE ¹	ETBE ¹	TAME ¹	DIPE ¹	EDB ¹	EDC ¹	
MW71	Shin/Choi	10/9/2008	<50,000	<2,500	<50	<50	<50	<50	<50	<50	
		03/01/10				LN	APL				
MW72	Shin/Choi	10/9/2008	<10,000	<500	<10	<10	<10	<10	<10	<10	
		07/29/09		<50	<1	<1	<1	<1	1.4	<1	
		03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW73	Shin/Choi	10/9/2008	<10,000	<500	190	<10	<10	<10	<10	<10	
		07/29/09		<50	71	<1	<1	<1	<1	<1	
		03/01/10	<1,000	<50	120	<1	<1	<1	<1	<1	
MW74	Shin/Choi	03/01/10	<1,000	130	720	<1	<1	<1	<1	<1	
MW75	ROW	11/07/08	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/02/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW76	Drake	02/03/09			<1						
		03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW77	Drake	02/03/09			<1						
		03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW78	Drake	02/03/09			<1						
		03/01/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW79	TOC/Farmasonis	07/08/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW80	TOC/Farmasonis	07/08/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW81	TOC/Farmasonis	07/08/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW82	TOC/Farmasonis	07/08/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW83	TOC/Farmasonis	07/08/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		11/21/11		D	ECOMMISS	IONED (RE	PLACED W	ITH MW10	0)		
MW84	Drake	10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/07/12			<1					<1	
MW85	Drake	10/11/12	WELL DAMAGED DURING INSTALLATION, REPAIRED ON 11/28/								
		03/06/12			<1					<1	
MW86	Drake	10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW87	Drake	10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW88	Drake	10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
MW89	Drake	10/12/10	<1,000	<50	<1	<1	<1	<1	<1	<1	
		03/06/12			<1					<1	
MW95	Drake	03/07/12			<1					<1	
MW96	Drake	03/07/12			<1					<1	
MW97	Drake	03/07/12			<1					<1	
MW98	Drake	03/08/12			<1					<1	
MW99	Drake	03/06/12			<1					<1	
MW101	Drake	03/06/12			<1					<1	
MTCA Metho	d A ²		NE	NE	20	NE	NE	NE	0.01	5	

NOTES:

Results measured in micrograms per liter.

Red denotes concentration exceeds MTCA Method A cleanup level.

Samples analyzed by North Creek Analytical, Inc., of Bothell, Washington. Data collected prior to 7/8/05 provided by previous consultants. Data collected since December 2005 analyzed by Friedman & Bruya of Seattle, Washington.

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

 2 MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

-- = not sampled/not analyzed

 $\!<$ = not detected at concentration exceeding the laboratory reporting limit

DIPE = diisopropyl ether

Drake = Property at 24309 56th Avenue West

 $\label{eq:defDry} \mbox{Dry = groundwater not encountered in well}$

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane ETBE = ethyl tertiary-butyl ether

LNAPL = light non-aqueous phase liquid

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

ROW = right of way

Shin/Choi = Shin/Choi Property at 24325 56th Avenue West

TAME = tertiary amyl methyl ether

TBA = tertiary butyl alcohol

TOC = Property at 24205 56th Avenue West (TOC Holdings Co. Facility No. 01-176)

TOC/Farmasonis = Property at 24225 56th Avenue West



Table 4

Summary of Quality Assurance/Quality Control Analytical Results First Quarter 2012

TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington

Sample Location (Well ID)	Sample ID	Property Identification	Sample Date	Sample Method	GRPH¹	Benzene ²	Toluene ²	Ethyl- benzene ²	Total Xylenes ²	MTBE ³	EDB ³	EDC ³
MW09	MW09-20120307-PE	TOC	03/07/12	Peristaltic Pump	11,000	30	76	350	2,400			
MW09	MW999-20120307-PE	NA	03/07/12	Peristaltic Pump	11,000	30	75	370	2,100			
MW09	MW09-20120307-BL	NA	03/07/12	Bladder Pump	13,000	56	110	440	2,300			
MW09	MW09-20120307-BA	NA	03/08/12	Bailer	2,800	19	28	67	460			
MW20	MW20-20120309-PE	TOC	03/09/12	Peristaltic Pump	5,800	200	57	310	460			
MW20	MW20-20120309-PE2	NA	03/09/12	Peristaltic Pump	5,600	180	54	310	480			
MW49	MW49-20120308-BL	ROW (56th)	03/08/12	Bladder Pump	<100	<1	<1	<1	<3			
MW49	MW49-20120308-BA	NA	03/08/12	Bailer	<100	<1	<1	<1	<3			
MW81	MW81-20120306-BA	TOC/Farmasonis	03/06/12	Bailer	<100	<1	<1	<1	<3			
MW81	MW81-20120306-BA2	NA	03/06/12	Bailer	<100	<1	<1	<1	<3			
MW86	MW86-20120306-BL	Drake	03/06/12	Bladder Pump	130	3.7	<1	<1	<3	<1		<1
MW86	MW86-20120306-BL2	NA	03/06/12	Bladder Pump	140	3.8	<1	<1	<3			
Trip Blank	Trip Blank-24309	NA	03/02/12	NA	<100	<1	<1	<1	<3	<1		<1
MTCA Method	MTCA Method A Cleanup Level ⁴						1,000	700	1,000	20	0.01	5

NOTES:

Results measured in µg/L.

Red denotes concentration exceeds MTCA Method A Cleanup Levels for groundwater.

Gray shading signifies QA/QC sample and results.

Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.

-- = not sampled/not analyzed

< = not detected at concentration exceeding the value of the laboratory reporting limit

μg/L = micrograms per liter

Drake = Property at 24309 56th Avenue West

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane

EPA = U.S. Environmental Protection Agency

 ${\sf GRPH = gasoline\text{-}range\ petroleum\ hydrocarbons}$

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NA = not applicable

ROW (56th) = 56th Avenue West right-of-way

TOC = Property at 24205 56th Avenue West (TOC Holdings Co. Facility No. 01-176)

TOC/Farmasonis = Property at 24225 56th Avenue West

¹Analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPH-Gx.

²Analyzed by EPA Method 8021B.

³Analyzed by EPA Method 8260C.

⁴MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

 $^{^{}a}1,\!000\,\mu\text{g/L}$ when benzene is not present and 800 $\mu\text{g/L}$ when benzene is present.

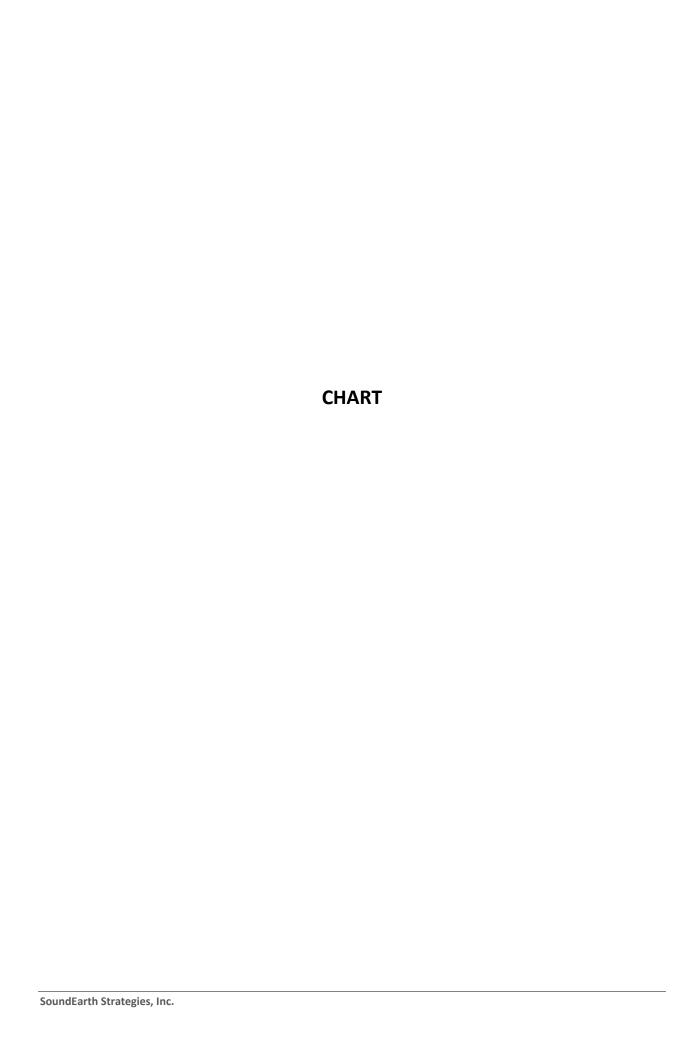
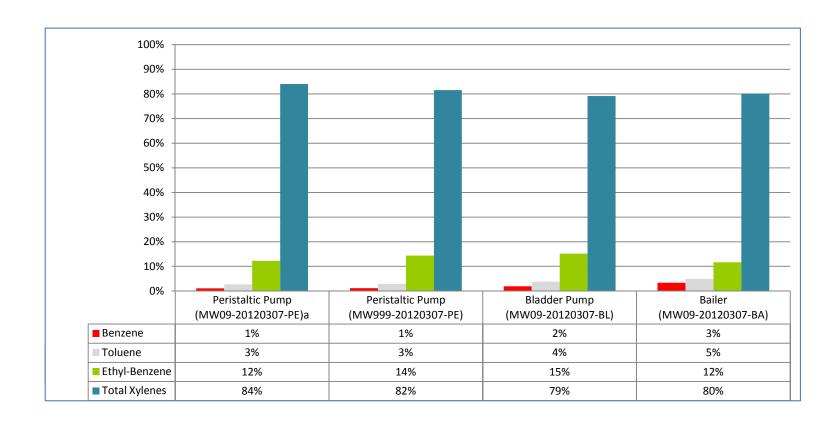
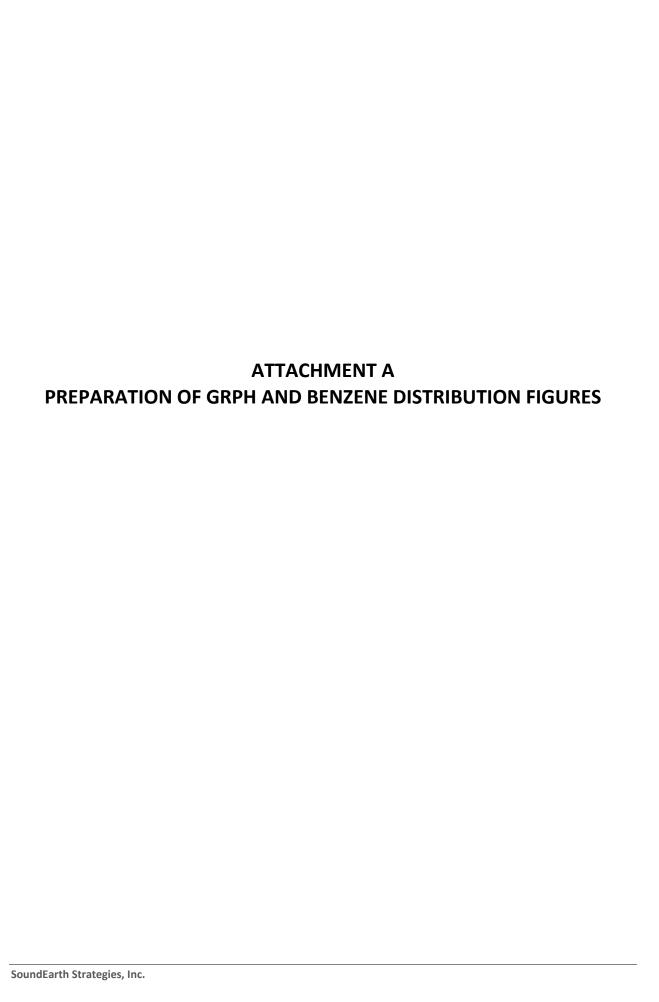




Chart 1 Influence of Sampling Method on Normalized Proportions of BTEX Constituents First Quarter 2012, Monitoring Well MW09 TOC Holdings Co. Facility No. 01-176 24205 56th Avenue West Mountlake Terrace, Washington





Attachment A

PREPARATION OF GRPH AND BENZENE DISTRIBUTION FIGURES

SoundEarth Strategies, Inc. (SoundEarth) prepared Figures 4, 6.1, 6.2, 7.1 and 7.2 using ESRI ArcGIS 3D Analyst software (version 9.3.1) and Rockware® Surfer software (version 8.2) to illustrate subsurface conditions according to the methods described below:

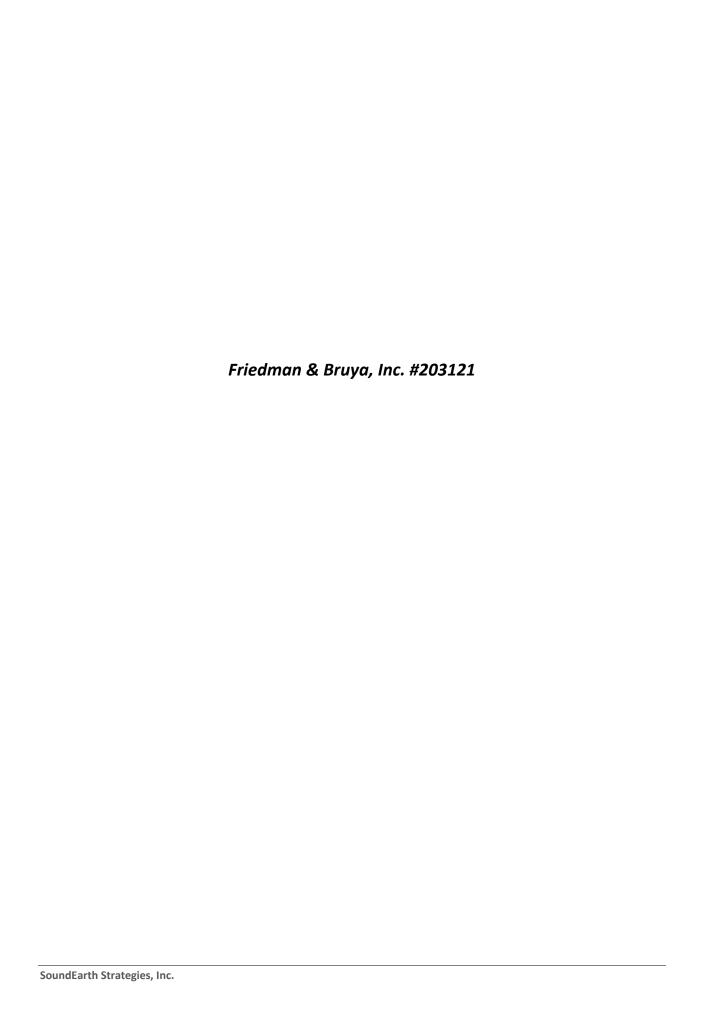
- The three-dimensional representations of the water-bearing zones shown on Figure 4 were created in the ESRI ArcGIS 3D Analyst software using a spline algorithm.
- The base map for Figures 6.1 and 6.2 is based on a professional survey of the TOC Property, the TOC/Farmasonis Property, the Drake Property, and adjoining rights-of-way by Axis Survey & Mapping of Kirkland, Washington (Axis 2012) and supplemented by drawings by others (Time Oil Co. 1975, Reisdorff 1985, K&S 2001). The property boundaries shown south of the Drake Property are approximate and are based on the parcel layout shown on county tax lot maps (Snohomish County Assessor's Office 2010). The backdrop photograph used for Figures 6.1 and 6.2 is an aerial photograph (USGS 2002) which has been scaled approximately to align with the base map in a manner that relates subsurface interpretations to surface features. Minor discrepancies between the survey and the aerial photograph are the result of photographic lens distortion.
- The gasoline-range petroleum hydrocarbons (GRPH) and benzene distributions shown on Figures 6.1, 6.2, 7.1 and 7.2 were prepared using an inverse distance-weighted algorithm on the natural log value of the GRPH or benzene concentration. The natural log value was used because of the large variation in magnitude of the concentrations. This minimized the bias on the high concentration zones, "hot spots", by distributing the contours and color ramp on a logarithmic scale rather than a linear scale where there would be no contours on the lower side and all values would be biased high. The inverse distance-weighted algorithm scales concentration values proportional to the distance between data points. In other words, influence of values decreases with distance. The weighting can be increased or decreased by adjusting the power value in the equation. The higher the power, the more value is placed on close data points. SoundEarth used a low power value (power of 2) to leverage the effect of data at greater distances, especially between the two apparently separate plumes. Therefore, the shapes of the plumes are derivative of the configuration of the monitoring well network, the distances between individual monitoring wells, and interpolation of concentrations between data points. SoundEarth applied a linear drift of 90 degrees to preferentially connect data points in the north-south direction, rather than the default east-west setting, consistent with the overall direction of groundwater flow at the Site. The linear drift algorithm interpolates data using an anisotropic ratio of 2 to limit the search neighborhood ellipse setting, such that concentrations appear to attenuate across shorter distances along the east-west axis than along the northsouth axis between each pair of data points.
- In cases where light non-aqueous phase liquid conditions were encountered, SoundEarth assigned values of 50,000 micrograms per liter (μg/L) for GRPH and 500 μg/L for benzene concentrations, compared to a maximum dissolved GRPH concentration at the Site of 37,000 μg/L (monitoring well MW48) and a maximum dissolved benzene concentration at the Site of 220 μg/L (monitoring well MW48).
- In cases where concentrations of GRPH were not detected above the standard laboratory reporting limit of 100 μg/L, SoundEarth assigned a value of 0.00001 μg/L to each data point.

- In cases where concentrations of benzene were not detected above the standard laboratory reporting limit of 1 μg/L, SoundEarth assigned a value of 0.00001 μg/L to each data point. In the case where the benzene reporting limit was elevated due to sample dilution, SoundEarth assigned a value equal to one-half the elevated detection limit, 2.5 μg/L for monitoring well MW15.
- Data associated with wells that intersected both Shallow Zone and Intermediate Zone conditions were included for the purposes of illustrating GRPH and benzene distributions but the groundwater elevation data associated with those wells were disregarded in the preparation of Figures 7.1 and 7.2 (monitoring wells MW08, MW24, MW27, MW29, and MW37).

Actual concentrations may vary from those illustrated on Figures 6.1, 6.2, 7.1, and 7.2 due to lithology, stratigraphy, well screen interval depths, and/or spacing between individual monitoring wells.

SoundEarth Strategies, Inc. Page | A-2

ATTACHMENT B LABORATORY ANALYTICAL REPORTS



ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

March 16, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Ms. Gardner:

Included are the results from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203121 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Beau Johnson

SOU0316R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 9, 2012 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-176_20120309, F&BI 203121 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	SoundEarth Strategies
203121-01	MW30-20120307-BA
203121-02	MW31-20120307-BA
203121-03	MW39-20120307-BA
203121-04	MW40-20120307-BA
203121-05	MW54-20120307-PE
203121-06	MW56-20120306-BL
203121-07	MW57-20120307-BA
203121-08	MW58-20120307-BL
203121-09	MW59-20120306-BL
203121-10	MW66-20120307-BA
203121-11	MW79-20120307-PE
203121-12	MW80-20120307-PE
203121-13	MW81-20120306-BA
203121-14	MW81-20120306-BA2
203121-15	MW82-20120307-PE
203121-16	MW92-20120306-BA
203121-17	MW93-20120306-BA
203121-18	MW94-20120306-BA
203121-19	MW100-20120306-BA
203121-20	Trip Blank - 24225
	1

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

Date Extracted: 03/09/12

Date Analyzed: 03/09/12, 03/10/12, and 03/13/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW30-20120307-BA	<1	<1	<1	<3	<100	99
MW31-20120307-BA	7.2	5.2	23	400	2,800	104
MW39-20120307-BA	<1	<1	<1	<3	<100	97
MW40-20120307-BA	<1	<1	<1	<3	<100	95
MW54-20120307-PE	<1	<1	<1	<3	<100	97
MW56-20120306-BL	<1	<1	<1	<3	<100	100
MW57-20120307-BA	9.7	2.3	87	160	2,100	109
MW58-20120307-BL	<1	<1	<1	<3	<100	97
MW59-20120306-BL	<1	<1	<1	<3	<100	95
MW66-20120307-BA	<1	<1	<1	<3	<100	97
MW79-20120307-PE	<1	<1	<1	<3	<100	97

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

Date Extracted: 03/09/12

Date Analyzed: 03/09/12, 03/10/12, and 03/13/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW80-20120307-PE	<1	<1	<1	<3	<100	96
MW81-20120306-BA	<1	<1	<1	<3	<100	99
MW81-20120306-BA	2 <1	<1	<1	<3	<100	96
MW82-20120307-PE	<1	<1	<1	<3	<100	99
MW92-20120306-BA	<1	<1	<1	<3	<100	98
MW93-20120306-BA	<1	<1	<1	<3	<100	101
MW94-20120306-BA	<1	<1	<1	<3	<100	95
MW100-20120306-B	A <1	<1	<1	<3	<100	98
Method Blank 02-0391 MB	<1	<1	<1	<3	<100	95

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW31-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/12/12Lab ID:203121-02Date Analyzed:03/13/12Data File:203121-02.065Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 86 60 125

Concentration

Analyte: ug/L (ppb)

Lead 26.5

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW92-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203121-16

 Date Analyzed:
 03/13/12
 Data File:
 203121-16.066

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 90 60 125

Concentration

Analyte: ug/L (ppb)

Lead 4.19

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW93-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203121-17 03/12/12 Date Analyzed: 03/13/12 Data File: 203121-17.067 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Internal Standard: % Recovery: Limit: Limit: Holmium 88 60 125

Concentration

Analyte: ug/L (ppb)

Lead 5.60

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW94-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203121-18
Date Analyzed: 03/13/12 Data File: 203121-18.068
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 87 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW100-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203121-19
Date Analyzed: 03/13/12 Data File: 203121-19.069
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 107 60 125

Concentration

Analyte: ug/L (ppb)

Lead 50.6

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: I2-166 mb 03/12/12 Date Analyzed: 03/13/12 Data File: I2-166 mb.057 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 85 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW31-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203121-02
Date Analyzed: 03/13/12 Data File: 203121-02.020
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Internal Standard: % Recovery: Limit: Limit: Holmium 97 60 125

Concentration

Analyte: ug/L (ppb)

Lead 24.6

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW92-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203121-16
Date Analyzed: 03/13/12 Data File: 203121-16.023
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW93-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203121-17
Date Analyzed: 03/13/12 Data File: 203121-17.024
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 94 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW94-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203121-18

 Date Analyzed:
 03/13/12
 Data File:
 203121-18.025

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 93 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW100-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203121-19

 Date Analyzed:
 03/13/12
 Data File:
 203121-19.026

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 99 60 125

Concentration

Analyte: ug/L (ppb)

Lead 1.15

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/12/12Lab ID:I2-169 mbDate Analyzed:03/13/12Data File:I2-169 mb.018Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW31-20120307-BA	Client:	SoundEarth Strategies
-------------------	------------------	---------	-----------------------

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: 203121-02 Date Extracted: 03/10/12 Date Analyzed: 03/11/12 Data File: 031033.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	98	50	150

Concentration

Compounds: ug/L (ppb)

Methyl t-butyl ether (MTBE) <1 1,2-Dichloroethane (EDC) <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 02-0369 mb 03/10/12 03/10/12 Data File: 031010.D Date Analyzed: Matrix: Instrument: GCMS9 Water Units: ug/L (ppb) Operator: VM

Lower Upper Limit: Surrogates: % Recovery: Limit: 1,2-Dichloroethane-d4 103 50 150 Toluene-d8 99 50 150 4-Bromofluorobenzene 96 50 150

Concentration

Compounds: ug/L (ppb)

Methyl t-butyl ether (MTBE) <1 1,2-Dichloroethane (EDC) <1

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203121-01 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

		Percent				
	Reporting	Spike	Recovery	Acceptance		
Analyte	Units	Level	LCS	Criteria		
Benzene	ug/L (ppb)	50	93	65-118		
Toluene	ug/L (ppb)	50	99	72-122		
Ethylbenzene	ug/L (ppb)	50	100	73-126		
Xylenes	ug/L (ppb)	150	98	74-118		
Gasoline	ug/L (ppb)	1,000	101	69-134		

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 203134-01 (Matrix Spike)

-		_		Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	99	100	76-125	1

		Percent						
	Reporting	Spike	Recovery	Acceptance				
Analyte	Units	Level	LCS	Criteria				
Lead	ug/L (ppb)	10	100	67-135				

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 203121-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	24.6	85 b	96 b	76-125	12 b

		Percent					
	Reporting	Spike	Recovery	Acceptance			
Analyte	Units	Level	LCS	Criteria			
Lead	ug/L (ppb)	10	99	67-135			

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203121

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 203122-01 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	88	85-97
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	83	76-100

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	86	86	86-97	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	80	80	75-100	0

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- \boldsymbol{a} The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 More than one compound of similar molecule structure was identified with equal probability.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- $\mbox{\it ca}$ The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte indicated may be due to carryover from previous sample injections.
- d The sample was diluted. Detection limits may be raised due to dilution.
- ds The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb Analyte present in the blank and the sample.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht Analysis performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The result is below normal reporting limits. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the compound indicated is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

ME 03/09/12

Send Report To_	Dee Gardner
Company	SoundEarth Strategies, Inc.
Address	2811 Fairview Ave. E.
City, State, ZIP	Seattle, WA 98102

SAMPLERS (signature) L. Namba, W. Camarda, L. Swart, A	Leaf
PROJECT NAME/NO.	PO #
TOC Facility 01-176	01-176
REMARKS	GEMS Y

KUMIU

TURNAROUND TIME Standard (2 Weeks) RUSH Rush charges authorized by: SAMPLE DISPOSAL

Dissolved Pb samples were to

Dispose after 30 days Return samples

Will call with instructions

Phone # <u>206.306</u>	.1900Fa	k # <u>206.306.</u>	<u> 1907 </u>	Dissol	ved Pb sa.	mples w	ere	field	41	tere	24			<u> </u>	Will Call	With Instruc	tions
						ANALYSES REQUESTED				4							
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	sel	TPH-Gasoline	3021B	MTBE by 8260	Total Pb	Dissolved Pb		ногр	EX	Notes	
m W30-		1	1 /	inan	Water	3		/	/							4 (
20120307-BA	MW30	DIAC	03/07/12	1420	Date	 	<u> </u>					2					ļ
MW31 20126307-BA	mw31	02 A-H	03/07/12	0845	Water	8					_						
MW 39- 20120307-BA	mw39	03 A.C		1440	water	.3		V	/		_						
MW40- 20120307-BA	MW40	04	03/07/12	1320	water	3		~	/	ļ							
10120307 ST 20120307-PE	mw54	05	03/07/12	1353	water	3.		./	-		<u> </u>	ļ 		<u> </u>			
20120305 - 20120306-BL	mw 56	06	03/06/12	1630	water	3		/					ļ				
MU57-	mu57	67	03/07/12	1612	Water	3		/	_	1_	_	<u> </u>		<u> </u>			
20120307-BX mW58- 20120307-BC	mW58	08	03/07/12		Water	3		~	1	1_		_	_	<u> </u>			
MW59-	mW59	09	03/06/12		Water	- 3		~	~	1	ļ	 	_	-			
20120306-BL MWG6-	mweb	10	03/07/12		water	3									<u></u>		
20/20307-BA						PRINT	NIAI	MTE.				\overline{c}	OMI	PAN	7	DATE	TIME

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

66	10 1 03/07/12 1150	water 3	<u> </u>		
1		PRINT NAME	COMPANY	DATE	TIME
	SIGNATURE Relinquished by:	Larry Namba	SES	03/09/12	0940
		Mhan Phan	FEBI	03/09/12	0940
	Received by: Man and	Man Thun		2	
	Relinquished by:		Samples received		·°C
	Received by:		<u> </u>	L	

ME 03/09/12 ATG

-115

Send Report To_	Dee Gardner
Company	SoundEarth Strategies, Inc.
Address	2811 Fairview Ave. E.
City, State, ZIP_	Seattle, WA 98102
Phone #_206.306	.1900 Fax #_206.306.1907

SAMPLERS (signature) L. Namba, W. Camayda, L. Swar	t. A.Leal
PROJECT NAME/NO.	PO #
TOC Facility 01-176	01-176
REMARKS	GEMS Y

TOC 01-176 / 24225
Dissolved Pl samples Were field Pltered

| CEMS Y | SAMPLE DISPOSAL | Dispose after 30 days | Return samples | Will call with instructions

RUSH

TURNAROUND TIME

Standard (2 Weeks)

Rush charges authorized by:

ANALYSES REQUESTED BTEX by 8021B MTBE by 8260 TPH-Gasoline Pb **IPH-Diesel** Time Sample Date # of jars Sample ID Location ID Lab ID Total Pb Notes Type Sampled Sampled NW 79mw79 11 A-C 03/07/12 Water 20120307 - PE 1512 3 MW80-12 03/07/12 water 3 mw80 20120307-PE 1540 MW81-03/06/12 mw81 13 Wata. 20/2030 6-BA 1750 3 MW81-03/06/12 Water 3 14 mw81 1805 20120306-BAZ MN8Z-15 03/07/12 Water mw82 3 1713 20120367-PE MW92-MW92 16 A-E 03/08/12 Water 5 1450 20120306-BA MW93-03/06/12 1629 Water mW93 20120306-BA MW94-18 mway 03/06/12 Water 1700 20120306-BA MW100-03/06/12 1737 MW 100 19 Water 20/20306-BA 5 Laboratory Supplied 20 A-B03 TB-24225 Water Trio Blank-

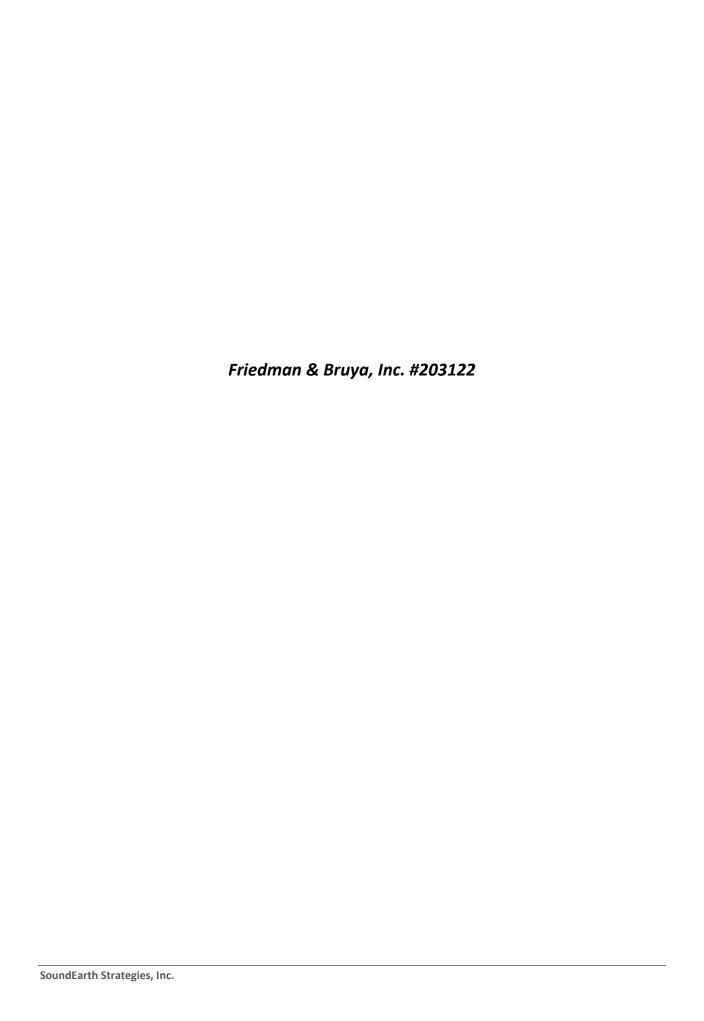
7-42-25 Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Land	Larry Namba	SES	03/09/12	0940
Received by: mlan auno	Nhan Phan	FEBI	03/09/12	0940
Relinquished by:		Samples received a	2	
Received by:		,	°	C



ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

March 16, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Ms. Gardner:

Included are the results from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203122 project. There are 42 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Beau Johnson

SOU0316R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 9, 2012 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-176_20120309 WORFDB6, F&BI 203122 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	SoundEarth Strategies
203122-01	MW65-20120307-BL
203122-02	MW65-20120307-BA
203122-03	MW67-20120306-PE
203122-04	MW68-20120306-PE
203122-05	MW69-20120306-BA
203122-06	MW70-20120306-BA
203122-07	MW76-20120306-BA
203122-08	MW77-20120306-BA
203122-09	MW78-20120306-BA
203122-10	MW84-20120307-BL
203122-11	MW85-20120306-BL
203122-12	MW86-20120306-BL
203122-13	MW86-20120306-BL2
203122-14	MW87-20120306-BA
203122-15	MW88-20120306-PE
203122-16	MW89-20120306-BL
203122-17	MW95-20120307-BA
203122-18	MW96-20120307-BA
203122-19	MW97-20120307-BA
203122-20	MW99-20120306-BA
203122-21	MW101-20120306-BA
203122-22	Trip Blank-24309

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

Date Extracted: 03/09/12

Date Analyzed: 03/10/12, 03/11/12, and 03/13/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	Benzene	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW65-20120307-BL	<1	<1	<1	<3	<100	91
MW65-20120307-BA	<1	<1	<1	<3	<100	92
MW67-20120306-PE	<1	<1	<1	<3	<100	95
MW68-20120306-PE	<1	<1	<1	<3	<100	95
MW69-20120306-BA	1.5	<1	100	440	5,400	87
MW70-20120306-BA	7.6	<1	<1	4.1	280	98
MW76-20120306-BA	<1	<1	<1	<3	<100	96
MW77-20120306-BA	<1	<1	<1	<3	<100	95
MW78-20120306-BA	<1	<1	<1	<3	<100	94
MW84-20120307-BL	<1	1.6	5.0	14	680	99
MW85-20120306-BL	3.1	<1	<1	<3	<100	94

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

Date Extracted: 03/09/12

Date Analyzed: 03/10/12, 03/11/12, and 03/13/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW86-20120306-BL	3.7	<1	<1	<3	130	95
MW86-20120306-BL	2 3.8	<1	<1	<3	140	94
MW87-20120306-BA	<1	<1	<1	<3	<100	95
MW88-20120306-PE	<1	<1	<1	<3	<100	92
MW89-20120306-BL	<1	<1	<1	<3	<100	95
MW95-20120307-BA	<1	<1	<1	<3	<100	92
MW96-20120307-BA	<1	<1	<1	<3	<100	94
MW97-20120307-BA	9.4	<1	<1	3.4	420	101
MW99-20120306-BA	2.1	<1	<1	<3	<100	92
MW101-20120306-B	A <1	<1	<1	<3	<100	96

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

Date Extracted: 03/09/12

Date Analyzed: 03/10/12, 03/11/12, and 03/13/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	Benzene	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
Trip Blank-24309 203122-22	<1	<1	<1	<3	<100	96
Method Blank 02-393 MB	<1	<1	<1	<3	<100	95
Method Blank 02-394 MB	<1	<1	<1	<3	<100	95

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW85-20120306-BL Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203122-11

 Date Analyzed:
 03/13/12
 Data File:
 203122-11.071

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 88 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW95-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203122-17 03/12/12 Date Analyzed: 03/13/12 Data File: 203122-17.072 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Internal Standard: % Recovery: Limit: Limit: Holmium 84 60 125

Concentration

Analyte: ug/L (ppb)

Lead 2.74

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW96-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203122-18
Date Analyzed: 03/13/12 Data File: 203122-18.073
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 86 60 125

Concentration

Analyte: ug/L (ppb)

Lead 11.4

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW97-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203122-19

 Date Analyzed:
 03/13/12
 Data File:
 203122-19.074

 Matrix:
 Water
 Instrument:
 ICPMS1

Matrix: Water Instrument: ICPM: Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Internal Standard: % Recovery: Limit: Limit: Holmium 87 60 125

Concentration

Analyte: ug/L (ppb)

Lead 2.07

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW99-20120306-BA Client: SoundEarth Strategies
Date Received: 03/09/12 Project: TOC_01-176_20120309

 Date Extracted:
 03/12/12
 Lab ID:
 203122-20

 Date Analyzed:
 03/13/12
 Data File:
 203122-20.075

 Matrix:
 Water
 Instrument:
 ICPMS1

Matrix: Water Instrument: ICPMS Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit: Holmium 86 60 125

Concentration

Analyte: ug/L (ppb)

Lead 1.08

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW101-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203122-21

 Date Analyzed:
 03/13/12
 Data File:
 203122-21.076

 Matrix
 Water
 Instrument
 ICPMS1

Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 87 60 125

Concentration

Analyte: ug/L (ppb)

Lead 22.6

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: I2-166 mb 03/12/12 Date Analyzed: 03/13/12 Data File: I2-166 mb.057 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 85 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW85-20120306-BL Client: SoundEarth Strategies

TOC_01-176_20120309 WORFDB6 Date Received: 03/09/12 Project:

Lab ID: Date Extracted: 03/12/12 203122-11 Date Analyzed: 03/13/12 Data File: 203122-11.027 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower

Upper **Internal Standard:** Limit: % Recovery: Limit: Holmium 96 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW95-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203122-17
Date Analyzed: 03/13/12 Data File: 203122-17.029
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW96-20120307-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203122-18
Date Analyzed: 03/13/12 Data File: 203122-18.030
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 95 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW97-20120307-BA Client: SoundEarth Strategies

TOC_01-176_20120309 WORFDB6 Date Received: 03/09/12 Project:

Lab ID: Date Extracted: 03/12/12 203122-19 Date Analyzed: 03/13/12 Data File: 203122-19.031 Matrix: Water Instrument: ICPMS1 Units: Operator: AP

ug/L (ppb)

Lower Upper **Internal Standard:** Limit: % Recovery: Limit:

Holmium 93 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW99-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203122-20

 Date Analyzed:
 03/13/12
 Data File:
 203122-20.032

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Holmium 93 60 125

Concentration
Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW101-20120306-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203122-21
Date Analyzed: 03/13/12 Data File: 203122-21.033
Matrix: Water Instrument: ICPMS1

Units: water instrument: ICPM Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 94 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/12/12Lab ID:I2-169 mbDate Analyzed:03/13/12Data File:I2-169 mb.018Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW65-20120307-BL	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203122-01

Date Analyzed: 03/10/12 Data File: 031011.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW69-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203122-05 03/10/12 Date Analyzed: 03/10/12 Data File: 031012.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW70-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203122-06

Date Extracted:03/10/12Lab ID:203122-06Date Analyzed:03/10/12Data File:031013.DMatrix:WaterInstrument:GCMS9Units:ug/L (ppb)Operator:VM

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW76-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203122-07

Date Analyzed: 03/10/12 Data File: 031014.D

Matrix: Water Instrument: GCMS9

Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW77-20120306-BA	Client:	SoundEarth Strategies
Date Received:	03/09/12	Project:	TOC_01-176_20120309
Date Extracted:	03/10/12	Lab ID:	203122-08
Date Analyzed:	03/10/12	Data File:	031015.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW78-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203122-09 03/10/12 Date Analyzed: 03/10/12 Data File: 031016.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW84-20120307-BL	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203122-10

Date Extracted: 03/10/12 Lab ID: 203122-10
Date Analyzed: 03/10/12 Data File: 031017.D
Matrix: Water Instrument: GCMS9
Units: ug/L (ppb) Operator: VM

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW85-20120306-BL	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-11 Date Analyzed: 03/10/12 Data File: 031018.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	∪pper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW86-20120306-BL	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB
Date Extracted: 03/10/12 Lab ID: 203122-12

Date Extracted:03/10/12Lab ID:203122-12Date Analyzed:03/10/12Data File:031019.DMatrix:WaterInstrument:GCMS9Units:ug/L (ppb)Operator:VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW87-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203122-14 03/10/12 Date Analyzed: 03/10/12 Data File: 031020.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	95	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW89-20120306-BL	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203122-16 03/10/12 Date Analyzed: 03/10/12 Data File: 031025.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW95-20120307-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203122-17

Date Analyzed: 03/10/12 Data File: 031026.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	97	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW96-20120307-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-18 Date Analyzed: 03/10/12 Data File: 031027.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW97-20120307-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-19 Date Analyzed: 03/10/12 Data File: 031028.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW99-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-20 Date Analyzed: 03/10/12 Data File: 031029.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW101-20120306-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-21 Date Analyzed: 03/11/12 Data File: 031030.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	97	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Trip Blank-24309	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/10/12 203122-22 Date Analyzed: 03/11/12 Data File: 031031.D Matrix: Water Instrument: GCMS9 Units: ug/L (ppb) Operator: VM

		Lower	Upper
Surrogates:	% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	96	50	150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 02-0369 mb 03/10/12 Data File: 031010.D Date Analyzed: 03/10/12 Matrix: Instrument: GCMS9 Water Units: ug/L (ppb) Operator: VM

Lower Upper Limit: Surrogates: % Recovery: Limit: 1,2-Dichloroethane-d4 103 50 150 Toluene-d8 99 50 150 4-Bromofluorobenzene 96 50 150

Concentration

Compounds: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203122-01 (Duplicate)

			Relative Percent
Reporting	Sample	Duplicate	Difference
Units	Result	Result	(Limit 20)
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<3	<3	nm
ug/L (ppb)	<100	<100	nm
	Units ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb)	Units Result ug/L (ppb) <1 ug/L (ppb) <1 ug/L (ppb) <1 ug/L (ppb) <3	Units Result Result ug/L (ppb) <1

		Percent		
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/L (ppb)	50	90	65-118
Toluene	ug/L (ppb)	50	95	72-122
Ethylbenzene	ug/L (ppb)	50	97	73-126
Xylenes	ug/L (ppb)	150	95	74-118
Gasoline	ug/L (ppb)	1,000	95	69-134

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203141-01 (Duplicate)

			Relative Percent
Reporting	Sample	Duplicate	Difference
Units	Result	Result	(Limit 20)
ug/L (ppb)	13	15	13
ug/L (ppb)	4.6	5.2	12
ug/L (ppb)	56	54	2
ug/L (ppb)	130	130	1
ug/L (ppb)	3,800	3,600	5
	Units ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb)	Units Result ug/L (ppb) 13 ug/L (ppb) 4.6 ug/L (ppb) 56 ug/L (ppb) 130	Units Result Result ug/L (ppb) 13 15 ug/L (ppb) 4.6 5.2 ug/L (ppb) 56 54 ug/L (ppb) 130 130

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/L (ppb)	50	90	65-118
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	94	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	96	69-134

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 203134-01 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	99	100	76-125	1

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	100	67-135

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 203121-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	24.6	85 b	96 b	76-125	12 b

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	99	67-135

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 203122-01 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	88	85-97
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	83	76-100

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	86	86	86-97	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	80	80	75-100	0

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- \boldsymbol{a} The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 More than one compound of similar molecule structure was identified with equal probability.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- $\mbox{\it ca}$ The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte indicated may be due to carryover from previous sample injections.
- d The sample was diluted. Detection limits may be raised due to dilution.
- ds The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb Analyte present in the blank and the sample.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht Analysis performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The result is below normal reporting limits. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the compound indicated is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

203122			Ο.	SAMPI	ERS (sign	ature)	ς.	Jack	A.	Lear	ß						ROUNI		ß	
Send Report To	Dee Gardner			L. Nambo	LERS (signa W. Com ECT NAME	inda, L	<u> 21</u>	140	· · · ·		PO	#		1	DITCL	I	Weeks			
Company	SoundEarth Stra	tegies, Inc.			тос Та	cility 01	176				01-1			Rush charges authorized by: SAMPLE DISPOSAL						
Company	2811 Fairview A			REMA		030-18				G	EMS	3	Y		Dign	ose aft	er 30 d:	ays)	•	
City, State, ZIP_	Seattle, WA 981	02			TOC 0	1-176 / 24	1309	ne G	eld	alte	reel				Will	rn san call wi	ith inst	ruction	18	ل
Phone # 206.306.		# <u>206.306.1</u>	907	P	ssolvea Pb	<u>scimple:</u> 	1	$\mathbf{M}\mathbf{M}\mathbf{L}$	IOE	SRE	ပေျ	ESTE	ED_							
			, 						8021B	8260		Pb								
·			Date	Time	Sample	# of jars	iesel	asoli	by 8(86 126	ą	ved 1		۵			Not	es		
Sample ID	Location ID	Lab ID	Sampled	Sampled	-Туре	W OI July	rPH-Diesel	rPH-Gasoline	BTEX by	MTÉE By	Total Pb	Dissolved		HOLD	E	D(>1	V DG 5	s/9/12	<u>, </u>	
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		ol A-F	03/07/12	1155	water	6	-			-	-		-	-	╁─					
MW65-20120307 &	i .		1	Ì	Water	3	_	1			-	-	-	+	╁					
20120307-BA	mw65		03/07/12	1	Water	3		/	1				_	_	1				<u></u>	
mW67- 2012030€-PE	mw67	_1	03/06/12	1				V	1	1										· . —
MW68- 20120306-PE	mw68	04 A-C	. 03/0c/13	1109	Water		+	1	1	- 1	1									
mw69-	mw69	OS A-F	13/06/12	1140	water	6	╁	+		1	1	1	\dagger	1						
20120306-BA mw70-	100	06	03/06/1		Water	6	+	+	-		+	+	+-		+					
10120306-BA	1	-	03/06/1		Water	6		1	1	1			+	+	\dashv					
20120306-BA	mw 76	07			1100			1		1	1			\perp			•			
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MW84 -	2.104	10	03/07/	12 0938	Wate	V 6	<u>- </u>				+		CON	/DA			DAT	E	TIM	E

SAMPLE CHAIN OF CUSTODY

SAMPLERS (signature)

Friedman & Bruya, Inc. Avenue West 98119-2029 5-8282

3-5044

20120307 - BL

- 1	Relinquished by:
,	Received by? al au
	Relinquished by:
	Received by:

MW78		11/06/6-1/1/			
mw 84	10 10 03/07/12 0938	water 6 -	COMPANY	DATE	TIME
	SIGNATURE	PRINT NAME		03/09/12	0940
ya, Inc. Le West	Relinquished by:	Larry Mamba	FIBI.	03/09/12	
1	Received by? aff au	phan Phan	720	2	
82	Relinquished by:		Samples received		C
	Received by:		<u> </u>	<u> </u>	

ME 03/09/12

TURNAROUND TIME

. 4	
Send Report To_	Dee Gardner
Company	SoundEarth Strategies, Inc.
Address	2811 Fairview Ave. E.
City, State, ZIP_	Seattle, WA 98102
Phone # 206.306	1900 Fax # 206.306.1907

t, Leaf PO#
01-176
GEMS Y

TURNAROUND TIME (Standard (2 Weeks)) RUSH_ Rush charges authorized by: SAMPLE DISPOSAL Dispose after 30 days Return samples
Will call with instructions

Dissolved Pb samples were field altered

ANTAI VODO DECLIDATED

						i	-	ANA		n Cr	<u>. QU.</u>	ro Ti	עט		
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	MTBE by 8260	Total Pb	Dissolved Pb	•	НОГД	Notes
MW85- 20120306-BL	mw85	11 A-H	03/06/12	1415	water	8			/	/	/				•
MW86- 20120306-BL	mw 36	12 A. F	03/06/12	1300	water	6		~	~	V					<u> </u>
MW86- 20120306-BLZ	mw86	13 A-C		1310	water	3		/	~						
MW87- 20120306-BA	mU87	14 A -F			Water	6		/	~	0					
MW88- 20/21306-PE	mw88	IS A-C	13/06/12	1205	water	3		/	_		_				
MW89 - 20120306-BL	mw89	16 A-F		1127	water	6		/	/	~					
AW95 - 20120307 - 84	mw 3 5	11+	03/07/12	1/50	Water	8		/	-	/		-			
MW96- 20/20307-BA	mw96	1	03/07/12	1222	water	8		/		~	/	~			
MN97- 20/20307-BA	mw97		03/01/12		Water	8		~	1	~	_		†		
MW98-	.,,,,,	'	l	1		1 ~			/		~	<u>~</u>			8
20120308-BA	mw98		03/08/12	0900	Water	8 -				L	<u>L</u>	<u> </u>		<u> </u>	

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: M.	harry Namba	SES	03/09/12	0940
Received by: man and aur	Nhan Phan	FeBI	03/09/12	0940
Relinquished by:		cs recei	2	90
Received by:			veu at	

203129	· · · · ·			SAMPLI	E CHAIN	OF C	JST	'OD'	Y	HE	-	. 0	3/	09	/12 V6/AI3
20212	<u>~</u>			SAM	PLERS (sig	mature)			_			4			rage # _ 3 of _ 3
Send Report To	Dee Gardner			2./	Yanba	W. Camo	rido	i,L	, Scvi	art. A	, Le	ra f	·		TURNAROUND TIME
Company	SoundEarth St	rategies. Inc			JECT NAM						P	O'#			Standard (2 Weeks) RUSH
Address	2811 Fairview		•			Facility 0:		5			01	-176		R	Rush charges authorized by:
					ARKS	<u> </u>				C	EM	IS Y	Y		SAMPLE DISPOSAL Dispose after 30 days
Phone # <u>206.30</u>		к # <u>206.306.</u>	1907		TOC (01-176/2 2d Pb 3a	4309	i s We	ref	held.	fitte	rod			Return samples Will call with instructions
				<u> </u>			. '					ESTE	D		
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample _ Type	# of jars	sel	TPH-Gasoline	3021B	MTBE by 8260	Total Pb	Dissolved Pb		ногр	Notes
mw99- 20120306-BA	mw99	20 A #	03/06/12	1025	Water	8		/		/	~	-			
MW 101- 20/20306-BA	mW101		03/06/12		water	8		/			-				

water

2

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Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

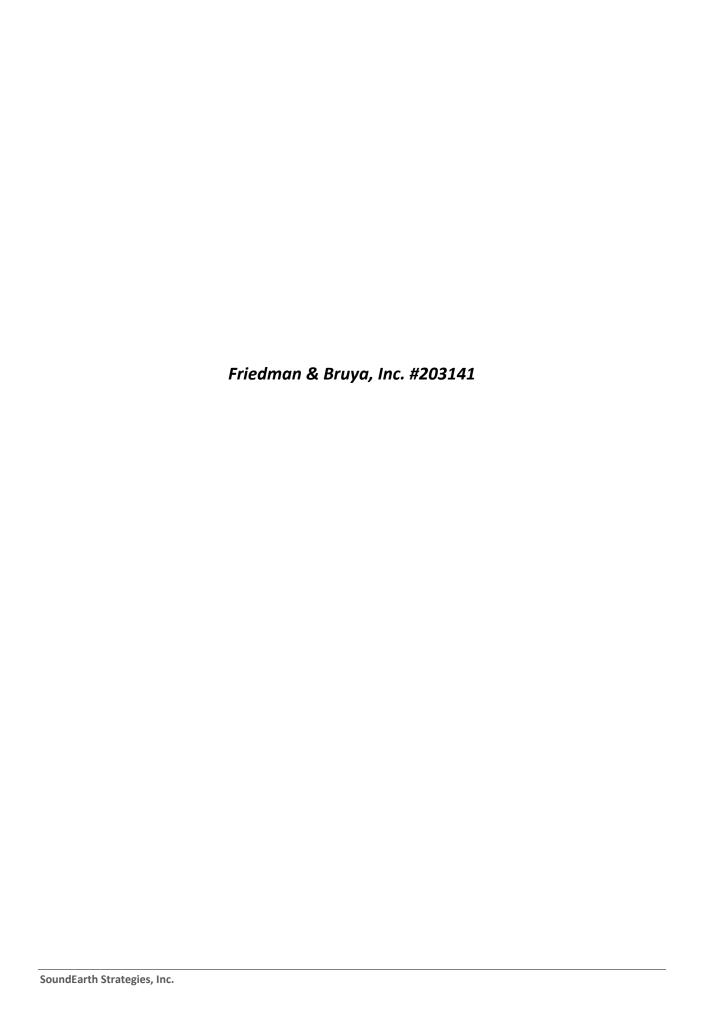
Trip Blank-24309 22 A-B

TB-74309

Fax (206) 283-5044

.	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Relinquished by:	Lowry Namba	SES	03/09/12	0940
	Received by and	Nhan Phan	FEBT	03/09/12	0940
	Relinquished by:		Samples rate	1 2 2 at 2	°C
	Received by:		Samples feet		

Laboratory Supplied



ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

March 16, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. Gardner:

Included are the results from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203141 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Audrey Hackett, Beau Johnson SOU0316R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 9, 2012 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-176_20120309 WORFDB6, F&BI 203141 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u> <u>SoundEarth Strategies</u> 203141-01 MW98-20120308-BA

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203141

Date Extracted: 03/09/12 Date Analyzed: 03/11/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW98-20120308-BA	. 13	4.6	56	130	3,800	90
Method Blank 02-394 MB	<1	<1	<1	<3	<100	95

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW98-20120308-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203141-01
Date Analyzed: 03/13/12 Data File: 203141-01.083
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 83 60 125

Concentration

Analyte: ug/L (ppb)

Lead 1.87

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: I2-166 mb 03/12/12 Date Analyzed: 03/13/12 Data File: I2-166 mb.057 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Internal Standard: % Recovery: Limit: Limit: Holmium 85 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW98-20120308-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted: 03/12/12 Lab ID: 203141-01
Date Analyzed: 03/13/12 Data File: 203141-01.038
Matrix: Water Instrument: ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 92 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/12/12Lab ID:I2-169 mbDate Analyzed:03/13/12Data File:I2-169 mb.018Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW98-20120308-BA	Client:	SoundEarth Strategies
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Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6
Date Extracted: 03/10/12 Lab ID: 203141-01

Date Extracted: 03/10/12 Lab ID: 203141-01
Date Analyzed: 03/11/12 Data File: 031034.D
Matrix: Water Instrument: GCMS9
Units: ug/L (ppb) Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Concentration

Compounds: ug/L (ppb)

Methyl t-butyl ether (MTBE) <1 1,2-Dichloroethane (EDC) <1

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 02-0369 mb 03/10/12 Data File: 031010.D Date Analyzed: 03/10/12 Matrix: Instrument: GCMS9 Water Units: ug/L (ppb) Operator: VM

Lower Upper Limit: Surrogates: % Recovery: Limit: 1,2-Dichloroethane-d4 103 50 150 Toluene-d8 99 50 150 4-Bromofluorobenzene 96 50 150

Concentration

Compounds: ug/L (ppb)

Methyl t-butyl ether (MTBE) <1 1,2-Dichloroethane (EDC) <1

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203141-01 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Benzene	ug/L (ppb)	13	15	13
Toluene	ug/L (ppb)	4.6	5.2	12
Ethylbenzene	ug/L (ppb)	56	54	2
Xylenes	ug/L (ppb)	130	130	1
Gasoline	ug/L (ppb)	3,800	3,600	5

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/L (ppb)	50	90	65-118
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	94	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	96	69-134

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 203134-01 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	99	100	76-125	1

	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	100	67-135

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 203121-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	24.6	85 b	96 b	76-125	12 b

		Percent							
	Reporting	Spike	Recovery	Acceptance					
Analyte	Units	Level	LCS	Criteria					
Lead	ug/L (ppb)	10	99	67-135					

ENVIRONMENTAL CHEMISTS

Date of Report: 03/16/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203141

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 203122-01 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	88	85-97
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	83	76-100

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	86	86	86-97	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	80	80	75-100	0

ENVIRONMENTAL CHEMISTS

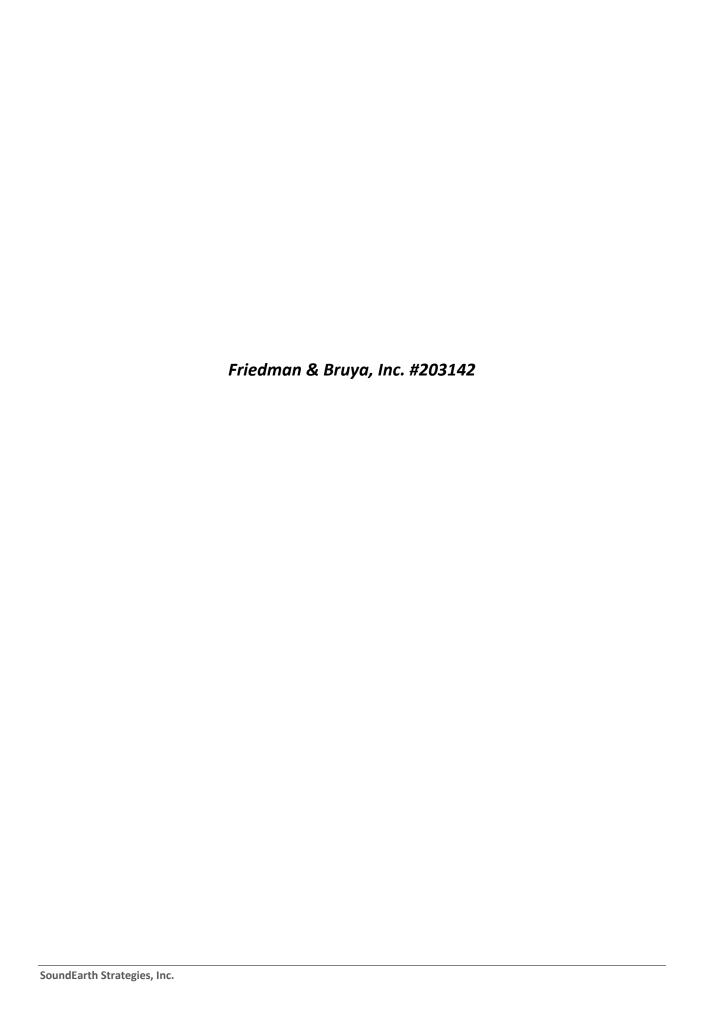
Data Qualifiers & Definitions

- \boldsymbol{a} The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 More than one compound of similar molecule structure was identified with equal probability.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte indicated may be due to carryover from previous sample injections.
- d The sample was diluted. Detection limits may be raised due to dilution.
- ds The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb Analyte present in the blank and the sample.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht Analysis performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The result is below normal reporting limits. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the compound indicated is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

203141				• .	SAI	MPL	E CHAIR	OF C	USI	<u>rod</u>	Y	400	<u>. </u>	<u> </u>	, 0	2/6	77112	1	ν,	² / A]
		_		•		SAM	PLERS (si	gnature)	1			0.	0				Page #		_ of(
Send Report To	Dee Ga	rdner		•	SAMPLERS (signature) L. Namba, W. Camarda, A. Leaf, L. Swart PROJECT NAME/NO. PO#								TURNAROUND TIME Standard (2 Weeks)							
Company	SoundE	arth St	rategies, Inc	2	PROJECT NAME/NO.							RUSH RUSH								
Address	9011 F.	ni m ziorz	Ave. E.					Facility 0				.]	01	-176		1	Rush charges authorized by:			
Address	<u> 2011 F</u>	allatem	Ave. L.			REM	<u> </u>	2-030	<u>-18</u>				GEM	R	Y	╽┝	SAMPLE	DISE	OSAL	
City, State, ZIP	Seattle.	WA 98	3102			1010141											(Dispose after	30 da		s :
Phone #_206.30	6.1900	Fa	x # 206.306	.1907			TOC Dissolve	01-176/2	24309	loe i	170.0	o fi	11 4)c As	rsol .		Return samp Will call with		uctions	,
					l		013361A6	X GINS	. '					,		J L	I	111001	detions	·
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									l	ne	8021B	560		Pb						
Samula ID	T 4'-	ID	T-LID	Date	Ti	me	Sample	u .c:	FPH-Diesel	PH-Gasoline	86	38						Notes		
Sample ID	Locatio	עו מנ	Lab ID	Sampled	San	pled	Туре	# of jars	Ä	Ŗ	BTEX by	E	면	lve		Ą	1	Notes	•	
												MTBE by 8260	MTBE by Total Pb Dissolved		101	H 600 20 20 3/1/12				
mw98-									1		m .		I			-	EDC, pe I	6- 5/	GIZ	
20120308-BA	mwg	8	01 A-H	03/08/12	0	00	Whotes	8				s-						^	~ <	
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Seattle, WA 981	19-2029	Receiv	ved by:)	26	"-							\dashv	SES			, >-			195	
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Fax (206) 283-50	283-5044 Received by:)aiii[nes	received at _		-°C	1					

Fax (206) 283-5044

Received by:



ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

March 21, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Ms. Gardner:

Included are the results from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203142 project. There are 12 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Audrey Hackett, Beau Johnson SOU0321R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 9, 2012 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-176_20120309 WORFDB6, F&BI 203142 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	SoundEarth Strategies
203142-01	MW02-20120308-PE
203142-02	MW03-20120308-PE
203142-03	MW06-20120308-PE
203142-04	MW09-20120307-PE
203142-05	MW999-20120307-PE
203142-06	MW09-20120307-BL
203142-07	MW09-20120308-BA
203142-08	MW10-20120307-PE
203142-09	MW15-20120308-BA
203142-10	MW18-20120307-PE
203142-11	MW19-20120309-PE
203142-12	MW20-20120309-PE
203142-13	MW24-20120309-PE
203142-14	MW26-20120307-BA
203142-15	MW27-20120309-PE
203142-16	MW29-20120309-PE
203142-17	MW32-20120309-PE
203142-18	MW34-20120309-PE
203142-19	MW36-20120308-BA
203142-20	MW37-20120308-PE
203142-21	MW38-20120308-PE
203142-22	MW91-20120308-BA
203142-23	Trip Blank-24205
203142-24	MW20-20120309-PE2

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

Date Extracted: 03/14/12 and 03/16/12

Date Analyzed: 03/14/12, 03/15/12, and 03/16/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 50-150)
MW02-20120308-F	PE <1	<1	<1	<3	<100	86
MW03-20120308-F	PE <1	<1	<1	<3	<100	84
MW06-20120308-F	PE <1	<1	<1	<3	<100	87
MW09-20120307-F 203142-04 1/5	PE 30	76	350	2,400	11,000	87
MW999-20120307- 203142-05 1/20	PE 30	75	370	2,100	11,000	86
MW09-20120307-F 203142-06 1/20	BL 56	110	440	2,300	13,000	87
MW09-20120308-F	BA 19	28	67	460	2,800	86
MW10-20120307-F	PE 62	7.3	27	89	1,400	88
MW15-20120308-F 203142-09 1/5	3A <5	<5	88	480	8,200	91
MW18-20120307-F	PE 43	<10	110	720	5,900	92
MW19-20120309-F	PE <1	<1	<1	<3	<100	84

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

Date Extracted: 03/14/12 and 03/16/12

Date Analyzed: 03/14/12, 03/15/12, and 03/16/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	Benzene	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 50-150)
MW20-20120309-P	PE 200	57	310	460	5,800	92
MW24-20120309-P	PE 7.3	39	39	770	4,400	97
MW26-20120307-E	BA <1	<1	<1	<3	<100	83
MW27-20120309-P	PE 8.5	94	620	3,900	23,000	95
MW29-20120309-P	PE 1.5	2.7	220	840	6,700	118
MW32-20120309-P	PE 3.1	11	1.1	16	120	85
MW34-20120309-P	PE <1	<1	<1	<3	<100	83
MW36-20120308-E	3A <1	<1	<1	<3	<100	90
MW37-20120308-P	PE <1	<1	<1	<3	<100	89
MW38-20120308-P	PE <1	<1	<1	<3	<100	90

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

Date Extracted: 03/14/12 and 03/16/12

Date Analyzed: 03/14/12, 03/15/12, and 03/16/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 50-150)
MW91-20120308-BA	A 36	95	410	3,100	15,000	97
Trip Blank-24205 203142-23	<1	<1	<1	<3	<100	90
MW20-20120309-PI 203142-24 1/10	E2 180	54	310	480	5,600	88
Method Blank 02-0438 MB	<1	<1	<1	<3	<100	86
Method Blank 02-0444 MB	<1	<1	<1	<3	<100	85

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW91-20120308-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 203142-22 03/16/12 Date Analyzed: 03/16/12 Data File: 203142-22.057 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 106 60 125

Concentration

Analyte: ug/L (ppb)

Lead 15.9

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: I2-178 mb 03/16/12 Date Analyzed: 03/16/12 Data File: I2-178 mb.045 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 121 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW91-20120308-BA Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/12/12
 Lab ID:
 203142-22

 Date Analyzed:
 03/13/12
 Data File:
 203142-22.040

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 94 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6,

Date Extracted: 03/12/12 Lab ID: I2-169 mb
Date Analyzed: 03/13/12 Data File: I2-169 mb.018
Matrix: Water Instrument: ICPMS1

Units: water instrument: ICPMS
Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203142-01 (Duplicate)

			Relative Percent
Reporting	Sample	Duplicate	Difference
Units	Result	Result	(Limit 20)
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<1	<1	nm
ug/L (ppb)	<3	<3	nm
ug/L (ppb)	<100	<100	nm
	Units ug/L (ppb) ug/L (ppb) ug/L (ppb) ug/L (ppb)	Units Result ug/L (ppb) <1	Units Result Result ug/L (ppb) <1

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/L (ppb)	50	88	72-119
Toluene	ug/L (ppb)	50	89	71-113
Ethylbenzene	ug/L (ppb)	50	90	72-114
Xylenes	ug/L (ppb)	150	86	72-113
Gasoline	ug/L (ppb)	1,000	100	70-119

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 203180-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	108	106	85-115	2

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	100	84-120

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203142

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 203121-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	24.6	85 b	96 b	76-125	12 b

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	99	67-135

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 More than one compound of similar molecule structure was identified with equal probability.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte indicated may be due to carryover from previous sample injections.
- d The sample was diluted. Detection limits may be raised due to dilution.
- ds The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb Analyte present in the blank and the sample.
- fc The compound is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht Analysis performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The result is below normal reporting limits. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the compound indicated is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

TOP ME 03/09/12

Send Report To	Dee Gardner				
Company	SoundEarth Strategies, Inc.				
Address	2811 Fairview Ave. E.				
City, State, ZIP Seattle, WA 98102					
Phone #_206.306	3.1900 Fax # 206.306.1907				

Fax #<u>206.306.19</u>07

	<u> </u>
SAMPLERS (signature) Lindhiba W. Camarda L. Swart	+, A.Loak
PROJECT NAME/NO.	PO #
TOC Facility 01-176	01-176
REMARKS	GEMS Y

TURNAROUND TIME (Standard (2 Weeks)) RUSH Rush charges authorized by:

SAMPLE DISPOSAL Dispose after 30 days Return samples

Will call with instructions

Dissolved Pb samples were field RItered.

ANALYSES REQUESTED BTEX by 8021B TPH-Gasoline P Date Time Sample MTBE by Sample ID Location ID Lab ID # of jars Total Pb Notes Sampled Sampled Туре mW02-MW02 Water 20120308\$12-PE 03/08/12 1315 01 A-C MW03 8 Water 10120308-PE MW06-MW03 02 03/08/12 1628 03/08/12 03 Water mw06 1456 3 20/20308-PF mw09-Water mw09 1449 04 03/07/12 3 20/20307-PE mw999-Towar VOA 1451 mw999 03/07/12 20120307-PE Water 05 1449 3 mw09mw09 06 03/07/12 Water 20120307-BL 1542 MW09mwog 07 03/08/12 Water 20120308-BA 1501 mW10-08 20120307-PE mWIO 03/01/12 Water 1710 MW 15mW15 09 03/08/12 Water 2012U3OB-BA 1527 3 mw18-10 1808 20120307 - PE mw 18 03/07/12 Water

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Lynk	Larry Namba	945S	03/09/12	1450
Received by: Manau	Whan phan	FRBI	3/9/12	1450
Relinquished by:		mates received at 2	°C	,
Received by:	- 38	mpies received at	····	

203	142
20 S	

Send Report To_	Dee Gardner
Company	SoundEarth Strategies, Inc.
Address	2811 Fairview Ave. E.
City, State, ZIP_	Seattle, WA 98102
Phone # <u>206.306</u>	.1900 Fax # 206.306.1907

SAMPLE CHAIN OF CUSTODY	ME 03/09	
SAMPLERS (signature)	1	Page # of
L. Namba, W. Comarda, L. Swart	A. Leak	TURNAROUND TIME
PROJECT NAME/NO.	PO #	Standard (2 Weeks) RUSH
TOC Facility 01-176	01-176	Rush charges authorized by:
REMARKS	GEMS Y	SAMPLE DISPOSAL
TOC 01-176 / 24205	filtered	Dispose after 30 days Return samples Will call with instructions

							ANALYSES REQUESTED					EST		
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	MTBE by 8260	Total Pb	Dissolved Pb	НОГД	Notes
MWM- 20/20309-PE	mw19	11 A-C	03/09/12	1232	Water	3		/	\					•
MW20- 20120309-PE	mw20	12.	03/09/12	1148	water	3		\	1					
MW24- 20120309-PE	mw24	13	03/09/12	1108	Water	3			~					
MW26- 20/20307-BA	MW26	14	03/07/12	1720	Water	3		1	/					
MW27- 20120309-PE	mw27	15 V	03/09/12	1015	water	3		v	~					
MW 28-	mw28				Water	3								e_
MW29- 26120309-PE	mw29	16 A-E	03/01/12	1019	water	3/6		~	~					
MW3Z- 20120309-PE	MW 32	17 AC		115-4	water	'		V	_					
MW34- 20120309 - PE MW36 -	mW34		03/09/12		Water	<i>√</i> 3		i	~					
mW36- 20/20308-BA	mw36		03/08/12		water ((5) ₁ / ₃ -		√	/					

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Larry Hamba	SES	13/09/12	1450
Received by and	Whan Phan	Feb_I	03/09/12	1450
Relinquished by:		2	00	
Received by:	3	imples received at	T C	

20314	12			SAMPL	E CHAIN	or Ci	usı	ממי	Y	М	E	. (ካ ጌ /	199	1/12	165)	V.
Send Report To		·			PLERS (si							enf	- 7	Г Г	TURNAROU	of 3 ND TIME	
Company SoundEarth Strategies, Inc.			.	PRO	PROJECT NAME/NO. PO #							Standard (2 Weeks) RUSH					
Address 2811 Fairview Ave. E.			 	ļ	TOC Facility 01-176 01-176								Rush charges authorized by:				
City, State, ZIP Phone # 206.30	Seattle, WA 98	102 x #_206.306.	1907		TOC Dissolve	01-176/2 グ <i>アム 5</i> 2	4205 mp/	95 u	vere		GEM d R		Y d		SAMPLE DI Dispose after 30 Return samples Will call with ins	days	
	T	1	·				Ĺ	ANA	LYSE	ES R	EQU	EST	ED			-	
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	MTBE by 8260	Total Pb	Dissolved Pb		НОГЪ	Not	tes	
MW37- 20120308-PE	MW37	20 A-C	03/08/12	1603	Water	3		·/		٠					(8)-ne Df	3/12/12	
MW38- 20120308-PE	MW 3 8	21 A-C	13/08/12		water	3			~							MC	

Laboratory Supplied MW 20-24 AC OSlogliz (x)(x)1150 MW 20 water 3 2012 0309-P#2

Water

Water

5

2

Samples received at

Friedman & Bruya, Inc. 3012 16th Avenue West

22 A-E

23 AB

mw91

TB-24205

03/08/12

1450

Seattle, WA 98119-2029

Ph. (206) 285-8282

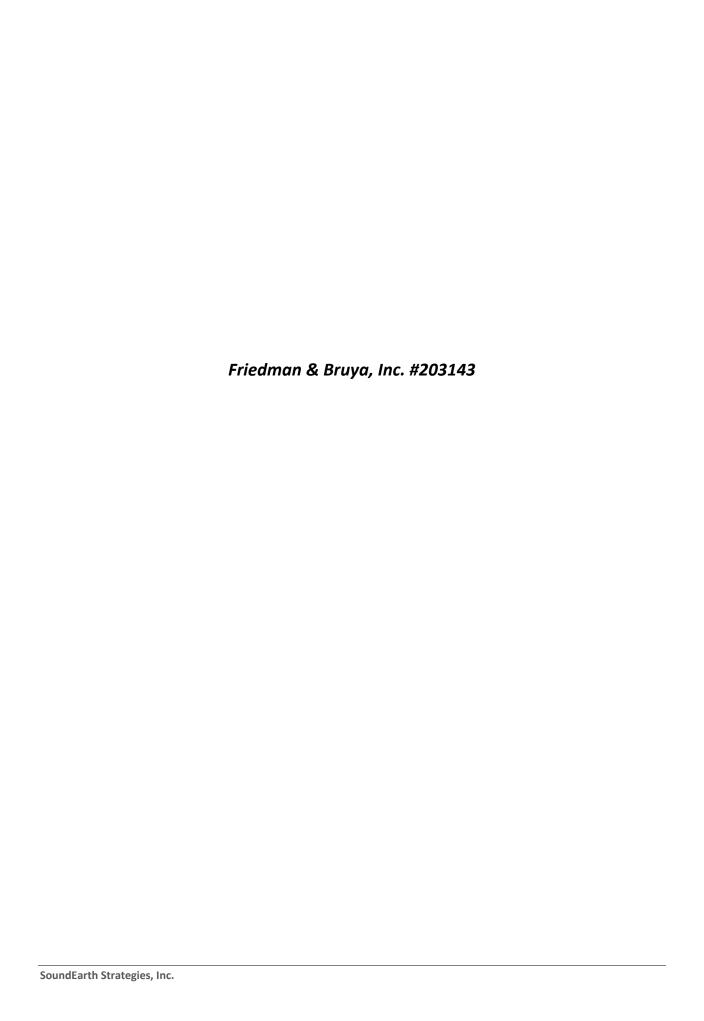
MW91-

24205

20120308-BA Trip Blowk-

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Larry Namba	5E5	03/09/12	1450
Received by and	Nhan Phan	FEBI	03/09/12	1450
Relinquished by:	:			
Received by:				



ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

May 1, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Ms. Gardner:

Included is the amended report from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203143 project. The case narrative has been corrected.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Audrey Hackett, Beau Johnson

SOU0321R.DOC

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 e-mail: fbi@isomedia.com

March 21, 2012

Dee Gardner, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Ms. Gardner:

Included are the results from the testing of material submitted on March 9, 2012 from the TOC_01-176_20120309 WORFDB6, F&BI 203143 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Mark Chandler, Audrey Hackett, Beau Johnson SOU0321R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 9, 2012 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-176_20120309 WORFDB6, F&BI 203143 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
203143-01	MW04-20120307-PE
203143-02	MW05-20120308-PE
203143-03	MW08-20120308-PE
203143-04	MW12-20120308-PE
203143-05	MW48-20120308-BA
203143-06	MW49-20120308-BL
203143-07	MW49-20120308-BA
203143-08	MW50-20120308-BA
203143-09	MW51-20120308-BA
203143-10	MW53-20120307-BA
203143-11	MW55-20120308-BL
203143-12	MW55-20120308-BL2
203143-13	MW60-20120308-BL
203143-14	MW61-20120308-PE
203143-15	MW62-20120308-PE
203143-16	MW63-20120308-BL
203143-17	MW64-20120308-BA
203143-18	MW75-20120307-BL

The total xylenes result for MW48-20120308-BA exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203143

Date Extracted: 03/12/12 and 03/13/12

Date Analyzed: 03/12/12, 03/13/12, and 03/14/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW04-20120307-PE	<1	<1	1.5	<3	<100	93
MW05-20120308-PE	<1	<1	<1	12	<100	96
MW08-20120308-PE	<1	<1	<1	<3	<100	98
MW12-20120308-PE	<1	<1	<1	<3	<100	96
MW48-20120308-BA	220	140	770	5,400 ve	37,000	106
MW49-20120308-BL	<1	<1	<1	<3	<100	96
MW49-20120308-BA	<1	<1	<1	<3	<100	96
MW50-20120308-BA	<1	<1	<1	<3	<100	96
MW51-20120308-BA	<1	<1	<1	<3	<100	97
MW53-20120307-BA	<1	<1	<1	<3	<100	94
MW55-20120308-BL	<1	<1	<1	<3	<100	98

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203143

Date Extracted: 03/12/12 and 03/13/12

Date Analyzed: 03/12/12, 03/13/12, and 03/14/12

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (% Recovery) (Limit 52-124)
MW55-20120308-BI	.2 <1	<1	<1	<3	<100	95
MW60-20120308-BI	< 1	<1	<1	<3	<100	96
MW61-20120308-PE	E <1	<1	<1	<3	<100	98
MW62-20120308-PE	E <1	<1	<1	<3	<100	96
MW63-20120308-BI	< 1	<1	<1	<3	<100	93
MW64-20120308-BA	A <1	<1	<1	<3	<100	97
MW75-20120307-BL	~ <1	<1	<1	<3	<100	97
Method Blank 02-0401 MB	<1	<1	<1	<3	<100	95

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW60-20120308-BL Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

 Date Extracted:
 03/16/12
 Lab ID:
 203143-13

 Date Analyzed:
 03/16/12
 Data File:
 203143-13.058

 Matrix:
 Water
 Instrument:
 ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 108 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: MW75-20120307-BL Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/16/12Lab ID:203143-18Date Analyzed:03/16/12Data File:203143-18.059Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 109 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: I2-178 mb 03/16/12 Date Analyzed: 03/16/12 Data File: I2-178 mb.045 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 121 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW60-20120308-BL Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Upper

Lab ID: Date Extracted: 03/12/12 203143-13 Date Analyzed: 03/13/12 Data File: 203143-13.041 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower

Internal Standard: % Recovery: Limit: Limit: Holmium 96 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: MW75-20120307-BL Client: SoundEarth Strategies

Date Received: 03/09/12 Project: TOC_01-176_20120309 WORFDB6

Lab ID: Date Extracted: 03/12/12 203143-18 Date Analyzed: 03/13/12 Data File: 203143-18.042 Matrix: Water Instrument: ICPMS1 Units: ug/L (ppb) Operator: AP

Lower Upper

Internal Standard: % Recovery: Limit: Limit: Holmium 96 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID: Method Blank Client: SoundEarth Strategies

Date Received: NA Project: TOC_01-176_20120309 WORFDB6

Date Extracted:03/12/12Lab ID:I2-169 mbDate Analyzed:03/13/12Data File:I2-169 mb.018Matrix:WaterInstrument:ICPMS1

Units: ug/L (ppb) Operator: AP

Lower Upper Internal Standard: % Recovery: Limit: Limit:

Holmium 98 60 125

Concentration

Analyte: ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203143

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 203143-01 (Duplicate)

				Relative Percent
	Reporting	Sample	Duplicate	Difference
Analyte	Units	Result	Result	(Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	1.5	1.5	0
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

	Percent							
	Reporting	Spike	Recovery	Acceptance				
Analyte	Units	Level	LCS	Criteria				
Benzene	ug/L (ppb)	50	91	65-118				
Toluene	ug/L (ppb)	50	95	72-122				
Ethylbenzene	ug/L (ppb)	50	96	73-126				
Xylenes	ug/L (ppb)	150	95	74-118				
Gasoline	ug/L (ppb)	1,000	99	69-134				

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203143

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 203180-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	108	106	85-115	2

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	100	84-120

ENVIRONMENTAL CHEMISTS

Date of Report: 03/21/12 Date Received: 03/09/12

Project: TOC_01-176_20120309 WORFDB6, F&BI 203143

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 203121-02 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	24.6	85 b	96 b	76-125	12 b

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	99	67-135

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- \boldsymbol{a} The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 More than one compound of similar molecule structure was identified with equal probability.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- $\mbox{\it ca}$ The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c The presence of the analyte indicated may be due to carryover from previous sample injections.
- d The sample was diluted. Detection limits may be raised due to dilution.
- ds The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb Analyte present in the blank and the sample.
- fc The compound is a common laboratory and field contaminant.
- $hr\ \hbox{- The sample and duplicate were reextracted and reanalyzed.} \ RPD\ results\ were\ still\ outside\ of\ control\ limits. \ The\ variability\ is\ attributed\ to\ sample\ inhomogeneity.}$
- ht Analysis performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j The result is below normal reporting limits. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc The presence of the compound indicated is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- nm The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

ME 03/09/12

ROW

UZ/AIZ

Send Report To Dee Gardner
Company SoundEarth Strategies, Inc.
Address 2811 Fairview Ave. E.
City, State, ZIP Seattle, WA 98102
Phone #_206.306.1900 Fax #_206.306.1907

H BE CIEMI, OF COSTODI	
SAMPLERS (signature), Linamba W. lumarda Liswart, A.	hond
PROJECT NAME/NO.	PO #
PROJECT NAME/NO.	FO#
TOC Facility 01-176	01-176
TOC Facility 01-176 <i>0440-030-18</i>	02 2.0
REMARKS	GEMS Y

Dissolved Pb Suples were field Aftered

TURNAROUND TIME

Standard (2 Weeks)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

						ANA	LYSI	ES R	EQU	EST	ED	•			
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	MTBE by 8260	Total Pb	Dissolved Pb		HOLD	Notes
MW04 - 26/21/307-PE	MWOY	OIAC	03/07/12	1800	Water	3		/	\					·	•
MW05- 20120308-PF	MW 05	02	03/08/12	1202	Woter	3		~	~						
mwo8- 20120308-PE	mwc8	03	03/08/12	1023	Vater-	3		~	/						
MN/Z- 20/20308-PE	MW/Z	69	03/08/12	0930	Water	3		/	1						
MW48- 20120308-BA	mw 48	05	03/08/12	1340	Water	3		~	~						
MW 49- 20120 308-BL	MW 49		03/08/12	1425	Water	3		V	V						
MW49- 20120308-BA	mw49	67	03/08/12	1512	Water	3		. `\	/						
MW50- 20120328-BA	MW50	1	03/08/12	0806	water	3		/	1						
MW51- 20/20308-BA	MW51	09	03/08/12	1204	Water	3		/							
MW53- 20120307-BA	MW53	0	03/01/12	1810	Water	3 -		~	~						

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME	
	Relinquished by:	Larry Namba	<i>इट</i> 5	03/09/12	1450	
)	Received by: man and	Nhan Phan	FEBI	3/4/12	1450	
	Relinquished by: /		·			
	Received by:		Samples received at_	3_°C		

SAMPLE CHAIN OF CUSTODY ME 03/09/12

V2/AI2
Page # 2 of L

Send Report To Dee Gardner									
Company SoundEarth Strategies, Inc.									
Address 2811 Fairview Ave. E.									
City, State, ZIP Seattle, WA 98102									
Phone # 206.306.1900 Fax # 206.306.1907									

SAMPLERS (signature) L. Hanba, W. Lumarda, L. Swa	ort A. Loal
PROJECT NAME/NO.	PO #
TOC Facility 01-176	01-176
REMARKS	GEMS Y

Dissolved Pb samples were field filtered

TURNAROUND TIME

Standard (2 Weeks)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Disposes after 30 days

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

						,	ANALYSES REQUESTED					EST			
Sample ID	Location ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of jars	rph-Diesel	rPH-Gasoline	BTEX by 8021B	MTBE by 8260	Total Pb	Dissolved Pb		НОГД	Notes
MW55-							<u> </u>		Г.	E-1					
20120308-BL	MW55	MAZ	03/08/12	1/26	water	3		-							
nw55-		(, ,		2 /										
20/20308-BLZ	mw55	(7	03/08/12	1129	Water	3		~		İ					
mW60-	•				4 /								_		
20/20308-BL	mw60	13 A-18	03/08/12	1315	Water	5						7			
MUG1- 20120308-PE	mw61	14 BK	03/08/12	1048	Water	3		~	/						
mW62- 20/20308-PE	MW62	15	03/08/12	1059	water	3		V	1						
MW63- 20120308-BL	mw 63	16	03/08/12	0945	whiter	3		~	~						Timeon ural 0948
MW64-		100	- 3/0011	UID	- CAI C	9									
20/2038-BA	MW64	17/	03/08/12	1256	water	3		~							
MW75- 20120367-BL	mw75	& A-E	03/07/12	1045	Water	5		~	~			7			
Trip-ROW	TB-ROW	1 AB)		water	2			/						Do not receive due Laboratory Supplied 319/12
)	•			-									1 11110

Friedman & Bruya, Inc. 3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	PRINT NAME COMPANY					
Relinquished by:	Larry Nampa	3ES	03/09/12	TIME 1456			
Received by:	Nhan Phan	FEBI	3/9/12	1450			
Nemiquismed by.							
Received by:		Samples received at	3 °C.				