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**Supplemental Environmental Services
Summary**

Former Texaco Service Station
5059 Wilson Avenue South
Seattle, Washington

for

Red Cedar Associates, LLC

July 21, 2011

GEOENGINEERS 

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30 YEARS
2010

Supplemental Environmental Services Summary

Former Texaco Service Station 5059 Wilson Avenue South Seattle, Washington

File No. 12804-001-04

July 21, 2011

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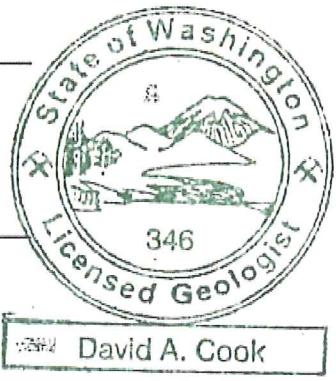


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EXECUTIVE SUMMARY

The objective of this investigation was to assess the potential vertical and lateral extent of petroleum-contaminated soil (if any) and further assess groundwater conditions at and around the former Texaco service station at 5059 Wilson Avenue South, Seattle, Washington ("subject property"). Corporate predecessors to Texaco opened a gasoline station at the subject property between approximately 1955 and 1976. The "Site" consists of those areas on and off the subject property where hazardous substances have come to be located as a result of historical release of hazardous substances from the former service station. Eleven (11) direct-push explorations were completed at the site and groundwater was sampled from three existing groundwater monitoring wells at and in the vicinity of the Site. Soil and groundwater sampling was completed from the explorations and wells in the vicinity of the former service station. Based on the chemical analytical results, gasoline and benzene contaminated soil at concentrations exceeding the Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup levels is present at the Site in the vicinity of the former service station at depths between approximately 3 and 10 feet below ground surface. Additionally, benzene, diesel- and gasoline-range petroleum hydrocarbons were detected at concentrations greater than the MTCA Method A cleanup levels in groundwater in the immediate vicinity of the former service station. Based on these results, the petroleum contaminated soil and groundwater at the Site originated from historical releases from past operation of the former service station (i.e., such as releases from pumps, fuel dispensers, piping or tanks, and/or releases from associated service station activities).

INTRODUCTION AND BACKGROUND

This report presents the results of our May 2011 subsurface characterization activities completed at 5059 Wilson Avenue South in Seattle, Washington (“subject property”). The subject property is located between 50th Avenue South, South Dawson Street and Wilson Avenue. The “Site” consists of those areas on and off the subject property where hazardous substances have come to be located as a result of the historical release of hazardous substances from the former Texaco service station. The Site is shown relative to surrounding physical features on the Vicinity Map, Figure 1. The layout of the subject property, including on Site structures and surrounding properties are shown on the Site Plan, Figure 2.

A Phase I Environmental Site Assessment (ESA) has not been conducted for the subject property. However, GeoEngineers has completed environmental services at the Site since 2006. The services have consisted primarily of research related to the understanding of historic property use at the subject property and adjacent properties and groundwater sampling and testing from wells that were installed as part of a geotechnical engineering study completed by GeoEngineers. GeoEngineers observed the installation of six groundwater monitoring wells at the subject property and adjacent properties (MW/B-1 through MW/B-4 and MW-1 and MW-2) during 2006. Depth to groundwater measurements and/or groundwater testing of petroleum hydrocarbons were completed twice (in October 2008 and December 2008) in MW/B-2, MW/B-3 and MW/B-4.

Groundwater was tested for petroleum hydrocarbons (gasoline, diesel, oil and benzene toluene, ethylbenzene and xylenes) during the two above-described previous monitoring events. Contaminants of potential concern were not detected at concentrations greater than the applicable Model Toxics Control Act (MTCA) cleanup levels with one exception: benzene was detected in groundwater samples obtained from MW/B-4 at concentrations up to 300 µg/L, which is greater than the MTCA Method A cleanup level of 5 µg/L. Monitoring well MW/B-4 is located at the subject property closest to the former service station and is located east/southeast (or cross-gradient) from the former tanks and fueling facilities. These results indicated petroleum-contaminated soil remained in the vicinity of the former service station. These results warranted further study which resulted in the exploration and testing program summarized in this report.

SCOPE OF SERVICES

The objective of the subsurface characterization activities described in this report was to evaluate the potential vertical and lateral extent of soil contamination and further evaluate groundwater conditions at the Site. The specific scope of services completed for this study was as follows:

- Prepared a Site-specific health and safety plan for use by GeoEngineers’ employees working at the Site.
- Prepared a work plan that established a rationale for the location of additional borings and the testing methods for soil and groundwater testing at the Site.
- Arranged for a utility locate (private and one-call) prior to exploration activities.

- Observed the completion of 11 borings (B-5 through B16), using direct-push drilling methods to depths ranging from 9.5 to 20 feet below ground surface (bgs).
- Obtained soil samples at approximate 2.5 foot intervals for field screening and possible chemical analysis. Performed field screening of soil samples for evidence of petroleum and/or VOC-related contamination using visual, water sheen and headspace vapor screening methods using a photoionization detector (PID). Visually classified the soil samples in general accordance with the American Society for Testing and Materials (ASTM) D 2488-00.
- Submitted at least one and up to three soil samples from each boring for chemical analysis of gasoline-range petroleum hydrocarbons and benzene, toluene, ethylbenzene and total xylenes (BTEX) using Northwest Method NWTPH-Gx and EPA Method 8260, respectively. Additionally, three soil samples (B-10-7.5, B-11-5.0 and B-16-7.5) were submitted for chemical analysis of diesel- and motor oil-range petroleum hydrocarbons using Northwest Method NWTPH-Dx and one soil sample (B-10-7.5) with field screening indications of contamination was also submitted for chemical analysis of the following analytes consistent with required testing for petroleum releases (MTCA Table 830-1 173-340 WAC):
 - Total lead by EPA 6000/7000 Series Methods;
 - Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM; and,
 - Polychlorinated biphenyls (PCBs) by EPA Method 8082.Soil samples were submitted to Pace Analytical (Pace) in Seattle, Washington on a standard turnaround time.
- Measured the depth to water in the accessible existing groundwater monitoring wells (MW-1, MW-2, MW/B-2, MW/B-3 and MW/B-4) using an electronic water level indicator. Depth to water was not measured in B-1 because the monument could not be opened.
- Obtained groundwater samples from each of the three existing wells sampled previously (MW/B-2, MW/B-3 and MW/B-4). Groundwater samples were collected using low-flow purging and sampling methods.
- Submitted each of the groundwater samples for chemical analysis of the following:
 - Gasoline-range petroleum hydrocarbons using Northwest Method NWTPH-Gx;
 - Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8260;
 - Diesel- and motor oil-range petroleum hydrocarbons using Northwest Method NWTPH-Dx;
 - Selected halogenated volatile organic compounds (HVOCs) methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC) by EPA Method 8260B;
 - Dissolved lead by EPA Method 6010. Groundwater samples submitted for dissolved lead were lab-filtered.Groundwater samples were submitted to Pace on a standard turnaround time.
- Evaluated the field and laboratory results relative to MTCA cleanup levels.

SOIL SAMPLING AND SOIL CHEMICAL ANALYTICAL RESULTS

General

Eleven direct-push borings were completed on May 5, 2011 using direct push exploration equipment owned and operated by Cascade Drilling (Cascade) of Woodinville, Washington. The borings ranged in depth between approximately 9.5 and 20 feet bgs. Discrete soil samples were obtained from the continuous-core borings for field screening and possible chemical analytical testing. Field screening consisted of visual, headspace vapor and water sheen screening methods. The borings were located in the accessible areas of the Site (outside of building footprints, outside concrete patches, away from the steep slope and densely vegetated areas) and were completed in the vicinity of the former service station at the subject property. The approximate exploration locations are shown in the attached Site Plan, Figure 2. Exploration field procedures (including field screening methods and boring logs) are described in Appendix A.

Subsurface Conditions

Subsurface soil conditions generally consisted of brown fine to medium sand with occasional gravel and varying degrees of silt. Peat was encountered in each of the borings with the exception of B-5 at depths ranging between approximately 8.5 and 12 feet below the ground surface (bgs) and ranged in thickness between approximately 1 to 7 feet thick. Additionally, woody material (similar to sawdust) was encountered in borings B-9, B-11, B-12 and B-16 below the peat at depths ranging between approximately 10 and 14 feet bgs to the base of the boring at approximately 15 or 20 feet bgs. Detailed boring logs are shown in Appendix A. Groundwater was encountered in the direct-push boring explorations at depths ranging between approximately 4 and 8 feet bgs.

Soil Sampling

Twenty (20) discrete grab soil samples obtained from the continuous core borings (at least one and up to three soil samples from each boring) were submitted to Pace Analytical (Pace) in Seattle, Washington for chemical analysis one or more of the following:

- Gasoline-range petroleum hydrocarbons using Northwest Method NWTPH-Gx; and
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8260.

Additionally, three soil samples (B-10-7.5, B-11-5.0 and B-16-7.5) were submitted for chemical analysis of diesel- and motor oil-range petroleum hydrocarbons using Northwest Method NWTPH-Dx and one soil sample (B-10-7.5) with field screening indications of contamination was also submitted for chemical analysis of the following analytes consistent with required testing for petroleum releases (MTCA Table 830-1 173-340 WAC):

- Total lead by EPA 6000/7000 Series Methods;
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM; and
- Polychlorinated biphenyls (PCBs) by EPA Method 8082.

Soil samples were selected for chemical analysis based on field screening indications of contamination, the depth of the soil sample relative to observed potentially contaminated soil in adjacent borings and the observed depth to groundwater at the Site.

Soil Sampling Chemical Analytical Results

Diesel- and motor oil-range petroleum hydrocarbons, toluene, ethylbenzene, total xylenes, total PAHs and PCBs either were not detected or were detected at concentrations less than the MTCA Method A cleanup levels in each of the soil samples submitted for analysis.

- Benzene and/or gasoline-range petroleum hydrocarbons were detected at concentrations greater than the MTCA Method A cleanup levels in the following soil samples:
- B-9-7.5 (obtained from boring B-9 at a depth of approximately 7.5 feet bgs);
- B-11-5.0 (obtained from boring B-11 at a depth of approximately 5 feet bgs);
- B-12-7.5 (obtained from boring B-12 at a depth of approximately 7.5 feet bgs);
- B-13-7.5 (obtained from boring B-13 at a depth of approximately 7.5 feet bgs); and
- B-16-7.5 (obtained from boring B-16 at a depth of approximately 7.5 feet bgs).

Chemical analytical results for soil samples are summarized in Table 1, and laboratory reports are included in Appendix B.

GROUNDWATER SAMPLING AND CHEMICAL ANALYTICAL RESULTS

Groundwater levels were measured in five of the six on-Site monitoring wells (MW/B-2 through MW/B-4, MW-1 and MW-2) and groundwater samples were obtained from three of the monitoring wells (MW/B-2, MW/B-3 and MW/B-4) which have been previously sampled. The groundwater samples obtained were submitted to Pace for chemical analysis of the following:

- Gasoline-range petroleum hydrocarbons using Northwest Method NWTPH-Gx;
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8260;
- Diesel- and motor oil-range petroleum hydrocarbons using Northwest Method NWTPH-Dx;
- Selected halogenated volatile organic compounds (HVOCs) methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC) by EPA Method 8260B; and
- Dissolved lead by EPA Method 6010. Groundwater samples submitted for dissolved lead were lab-filtered.

Contaminants of potential concern either were not detected or were detected at concentrations less than the applicable MTCA Method A cleanup levels in each of the wells with the following exceptions:

- **MW/B-4:** Gasoline- and diesel-range petroleum hydrocarbons and benzene were detected at concentrations of 1,550 micrograms per liter ($\mu\text{g/L}$), 1.7 milligrams per liter (mg/L) and 288 $\mu\text{g/L}$, respectively. Each of these detected concentrations are greater than the corresponding MTCA Method A cleanup levels.

Depth to groundwater measurements in each of the wells and groundwater chemical analytical data from this sampling event and the two previous sampling events are presented in the laboratory reports in Appendix B and summarized in Table 2.

CONCLUSIONS

Soil

Based on field screening and soil chemical analytical results, soil with gasoline and/or benzene concentrations greater than the corresponding MTCA Method A cleanup levels is present at the Site in the vicinity of the former service station at depths ranging between approximately 3 to 10 feet bgs. The thickest lens of soil contamination was observed at the location of B-11 (immediately north, and downgradient, of former fueling facilities and/or tanks). Although the lateral extent of the soil contamination above MTCA cleanup levels to the west was identified during this study (borings B-10 and B-15), the lateral extent of soil contamination to the south and east is unknown and may extend off of the subject property beneath South Dawson Street and Wilson Avenue. The lateral extent of soil contamination to the north of the former service station likely terminates within approximately 5 to 15 feet of boring B-12, based on the relatively low concentrations of gasoline and benzene detected in soil samples obtained from this boring and the lack of field screening evidence of contamination observed at this location. The approximate vertical and lateral extent of potentially contaminated soil is shown on Figure 2. Based on our observations at the subject property and past experience, the source of the contaminated soil at the Site is releases attributable to historic operation of the former service station at the subject property.

Groundwater

Based on the results of the groundwater chemical analytical results, gasoline- and diesel-range petroleum hydrocarbons and benzene are present at concentrations greater than the MTCA Method A cleanup levels beneath the subject property in the vicinity of the former service station. Based on our observations at the subject property and experience on similar sites, the source of the contaminated groundwater at the Site is the contaminated soil, which was contaminated from releases attributable to historic operation of the former service station at the subject property.

LIMITATIONS

This subsurface characterization has been prepared for use by Red Cedar Associates, LLC. GeoEngineers has performed this subsurface characterization of the area at and around the former Texaco service station located at 5059 Wilson Avenue South in Seattle, Washington, in general accordance with the scope and limitations of our proposal dated August 2, 2010.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with the generally accepted environmental science practices for environmental studies in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report.

Table 1
Soil Field Screening and Chemical Analytical Data (Petroleum Hydrocarbons and BTEX)
Former Texaco Service Station
5059 Wilson Avenue South
Seattle, Washington

Exploration Location ¹	Sample ID	Depth (feet bgs)	Field Screening ²		Petroleum Hydrocarbons (mg/kg)			BTEX ⁵ µg/kg			
			Sheen	Headspace (ppm)	Gasoline-Range ³	Diesel-Range ⁴	Motor Oil-Range ⁴	B	E	T	X
B-5	B-5-5.0	5	NS	<10	<0.28	--	--	<4.2	<2.2	<7.2	<5.0
B-6	B-6-7.5	7.5	NS	<10	<0.23	--	--	<3.4	<1.8	<5.9	<4.1
B-7	B-7-7.5	7.5	NS	<10	<0.26	--	--	<3.9	<2.1	<6.7	<4.7
B-9	B-9-2.5	2.5	NS	<10	15.1	--	--	<3.3	<1.8	<5.7	<4.0
	B-9-7.5	7.5	HS	510	1,640	--	--	1,660	255	52.1	<6.0
	B-9-12.5	12.5	NS	<10	<2.2	--	--	<33.2	<17.6	<56.6	<39.6
B-10	B-10-5.0	5	NS	<10	<0.30	--	--	<4.5	<2.4	<7.7	<5.4
	B-10-7.5 ⁶	7.5	HS	725	28.5	<5.1	<18.1	<6.1	<3.2	<10.3	<7.2
	B-10-11.0	11	NS	<10	<0.49	--	--	<7.9	<3.9	<12.6	<8.8
B-11	B-11-5.0	5	HS	900	1,010	129	395	29.2	14.9	<6.2	8.4
	B-11-10.0	10	NS	<10	38.7	--	--	644	<24.2	<77.8	<54.5
B-12	B-12-7.5	7.5	NS	<10	62.6	--	--	8.1	7	8.8	51.8
B-13	B-13-7.5	7.5	MS	290	400	--	--	5.2	2.8	<6.5	<4.6
	B-13-10	10	NS	<10	1.3	--	--	<3.6	<1.9	<6.1	<4.3
B-14	B-14-7.5	7.5	NS	<10	17.8	--	--	<4.0	<2.1	<6.8	<4.8
	B-14-10	10	NS	<10	4.3	--	--	<4.9	5.6	<8.3	9.2
B-15	B-15-7.5	7.5	NS	<10	10.4	--	--	<4.8	<2.5	<8.2	<5.7
	B-15-10	10	NS	<10	5.6	--	--	<14.0	<7.4	<23.9	<16.7
B-16	B-16-7.5	7.5	MS	130	245	39.2	139	<6.5	<5.7	<11.1	<7.8
	B-16-10	10	NS	<10	36.6	--	--	<60	<31.8	<102	<71.5
MTCA Method A or B Cleanup Level for Unrestricted Land Use					30/100 ⁷	2,000	2,000	30	6,000	7,000	9,000

Notes:

¹Approximate exploration locations shown on the attached figure. Chemical analytical testing by Pace Analytical in Seattle, Washington. Samples were obtained on May 5, 2011.

²Field screening methods are described in Appendix B.

³Gasoline-range hydrocarbons analyzed by petroleum hydrocarbon identification using Northwest Method NWTPH-Gx.

⁴Diesel- and motor oil-range hydrocarbons analyzed by Northwest Method NWTPH-Dx Extended with a silica gel cleanup or petroleum hydrocarbon identification using Northwest

⁵Benzene (B), ethylbenzene (E), toluene (T) and total xylenes (X) analyzed by EPA Method 8260.

⁶This sample was also submitted for chemical analysis of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons and total lead. These contaminants of concern either were not detected or were detected at concentrations less than the applicable MTCA Method A or B cleanup levels. See the laboratory report for a full list of analytes tested.

⁷When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.

mg/kg = milligrams per kilogram

bgs = below ground surface

µg/kg = micrograms per kilogram

-- = not tested

NS = no sheen; MS = moderate sheen; HS = heavy sheen

ppm = parts per million

Bolding indicates analyte was detected.

Shading indicates analyte was detected at concentrations greater than the MTCA Method A cleanup level.

Table 2
Groundwater Levels and Chemical Analytical Data
Former Texaco Service Station
 5059 Wilson Avenue South
 Seattle, Washington

Sample ID ¹	Date of Sampling/ Measuring	Depth to Water (feet bgs)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	Petroleum Hydrocarbons			BETX ⁴ (µg/L)				Selected VOCs (µg/L)			Dissolved Lead ⁵ (µg/L)
					Gasoline- Range ² (µg/L)	Diesel- Range ³ (mg/L)	Motor Oil- Range ³ (mg/L)	B	E	T	X	MTBE	EDB	EDC	
Groundwater Samples															
B-1	5/6/2011	- ⁶	186.25	-	-	-	-	-	-	-	-	-	-	-	-
	10/15/2008	8.15		178.1	-	-	-	-	-	-	-	-	-	-	-
	12/9/2011	7.89		178.36	-	-	-	-	-	-	-	-	-	-	-
B-2-GW	5/6/2011	0.62	181.75	181.13	<50.0	0.2	<0.38	<1.0	<1.0	<1.0	<3.0	<1.0	<0.010	<1.0	<10.0
	10/15/2008	1.42		180.33	-	-	-	-	-	-	-	-	-	-	-
	12/9/2008	0.87		180.88	<100	<0.1	<0.1	<1.0	<1.0	<1.0	<2.0	-	-	-	-
B-3-GW	5/6/2011	6.95	192.75	185.8	<50.0	0.13	<0.38	<1.0	<1.0	<1.0	<3.0	<1.0	<0.010	<1.0	<10.0
	10/15/2008	8.57		184.18	-	-	-	-	-	-	-	-	-	-	-
	12/9/2008	7.13		185.62	<100	<0.1	<0.1	<1.0	<1.0	<1.0	<2.0	-	-	-	-
B-4-GW	5/6/2011	6.8	192.75	185.95	1,550	1.7	0.47	288	2.1	4.9	10.2	<1.0	<0.010	<1.0	<10.0
	10/15/2008	7.47		185.28	510	<0.20	<0.20	200	<1.0	<3.1	5.7	-	<0.01	<1.0	-
	12/9/2008	7.64		185.11	520	<0.1	<0.1	310	1.9	5.5	9.8	<3.0	<0.01	<1.0	-
MW-1	5/6/2011	1.36	181.75	180.39	-	-	-	-	-	-	-	-	-	-	-
	10/15/2008	1.86		179.89	-	-	-	-	-	-	-	-	-	-	-
	12/9/2008	1.5		180.25	-	-	-	-	-	-	-	-	-	-	-
MW-2	5/6/2011	2.47	182.80	180.33	-	-	-	-	-	-	-	-	-	-	-
	10/15/2008	3.01		179.79	-	-	-	-	-	-	-	-	-	-	-
	12/9/2008	2.61		180.19	-	-	-	-	-	-	-	-	-	-	-
MTCA Method A or B Cleanup Levels for Unrestricted Land Use					800/1,000 ⁶	0.5	0.5	5	700	1,000	1,000	20	0.01	500	15

Notes:

¹Approximate monitoring well locations shown on the Site Plan, Figure 2. The wells were measured and/or sampled on May 6, 2011. Chemical analytical testing by Pace Analytical in Seattle, Washington.

²Gasoline-range hydrocarbons analyzed by Northwest Method NWTPH-Gx.

³Diesel- and lube oil-range hydrocarbons analyzed by Northwest Method NWTPH-Dx Extended with a silica gel cleanup.

⁴Benzene (B), ethylbenzene (E), toluene (T) and total xylenes (X) analyzed by EPA Method 8260.

⁵Dissolved lead analyzed by EPA Method 6010. Samples analyzed for dissolved lead were lab filtered.

⁶Monitoring well monument was jammed and could not be opened.

⁶When benzene is present, the gasoline range cleanup level is 800 µg/L. When benzene is not present the gasoline range cleanup level is 1,000 µg/L.

µg/L = micrograms per liter

- = Not Tested

bgs = below ground surface

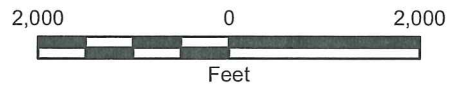
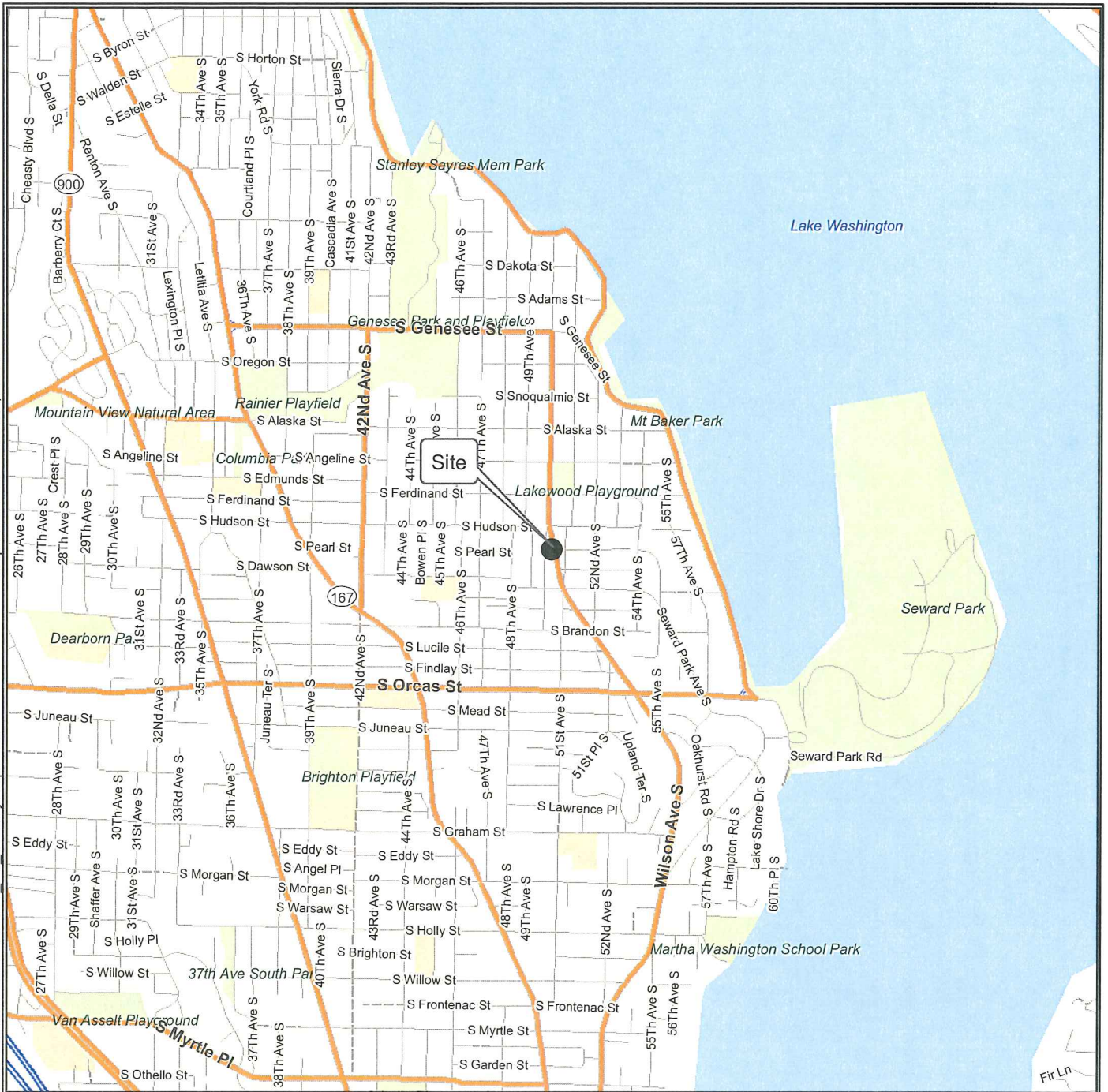
EDB = 1,2-Dibromoethane

MTBE = Methyl tert-Butyl Ether

EDC = 1,2-Dichloroethane

Bolding indicates analyte was detected.

Shading indicates analyte was detected at a concentration greater than the MTCA Method A or B cleanup level.

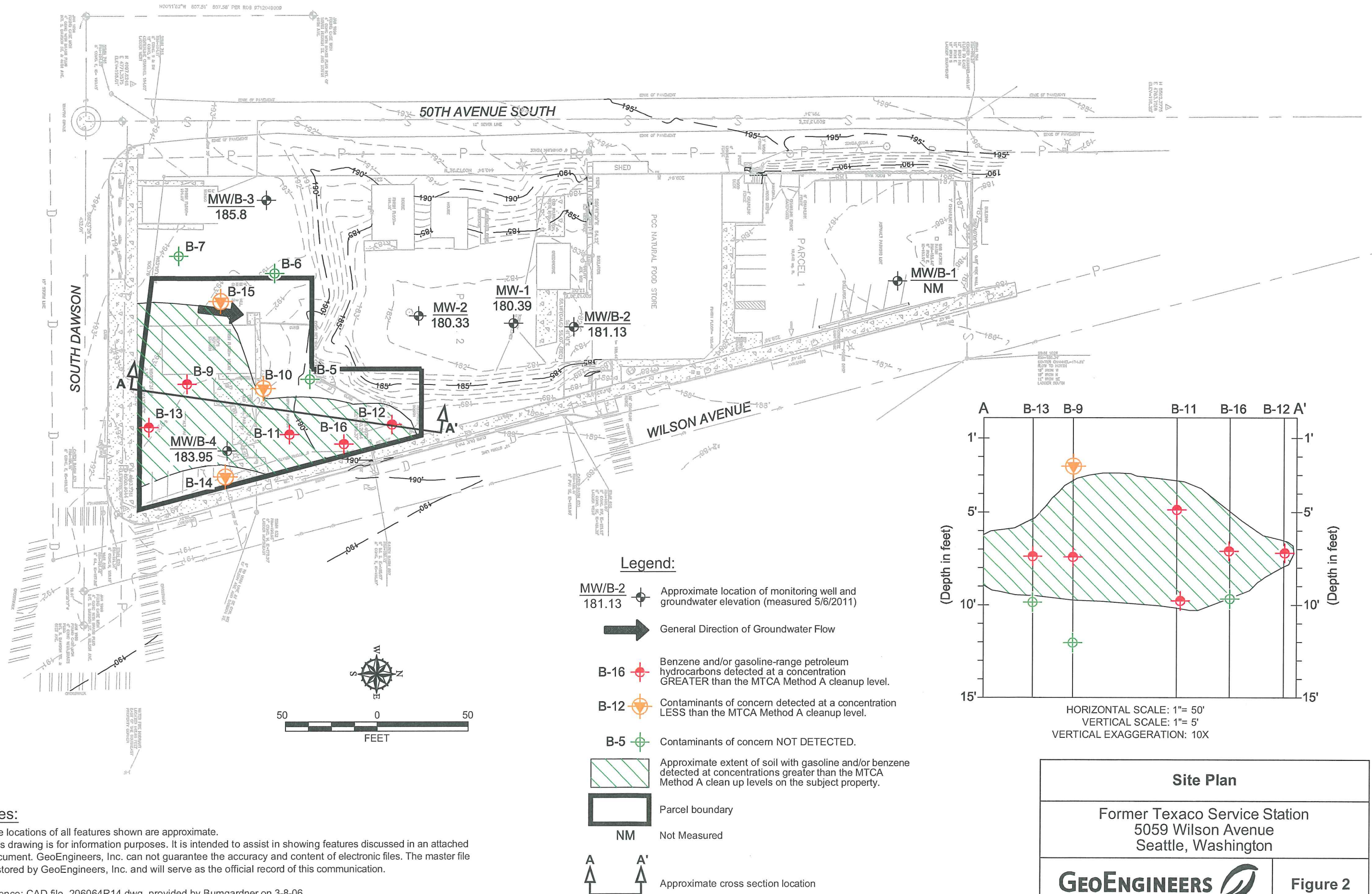


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Data Sources: ESRI Data & Maps, Street Maps 2005
 Transverse Mercator, Zone 10 N North, North American Datum 1983
 North arrow oriented to grid north

Vicinity Map	
Former Texaco Service Station 5059 Wilson Avenue South Seattle, Washington	
	Figure 1

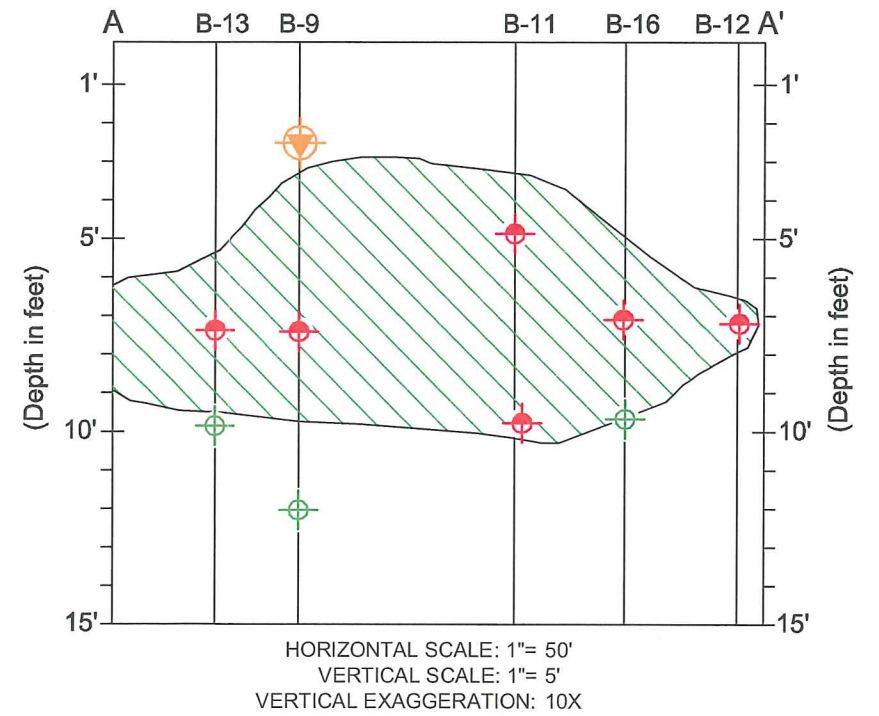


Notes:

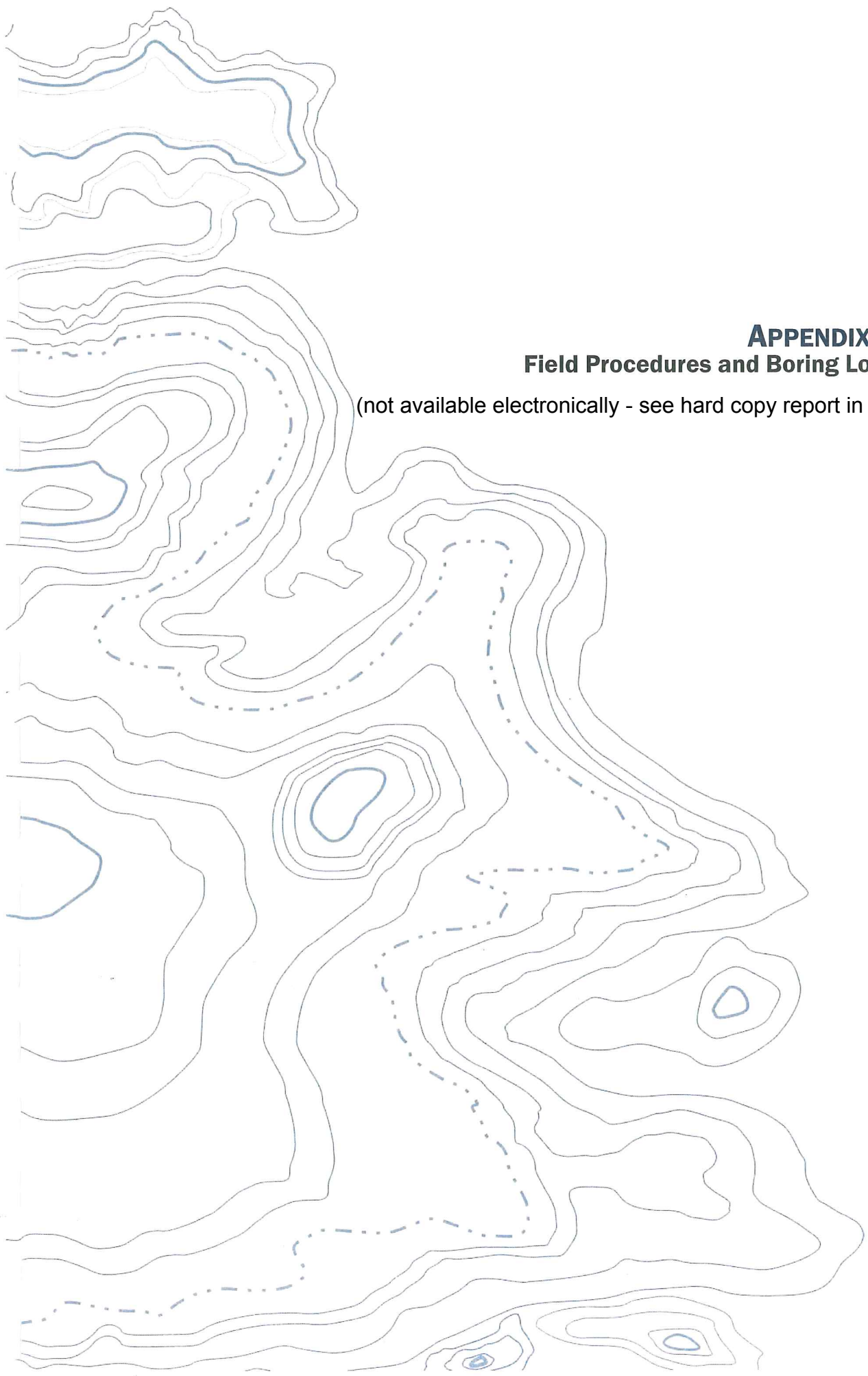
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Reference: CAD file, 206064R14.dwg, provided by Bumgardner on 3-8-06.

- Legend:**
- MW/B-2 181.13 Approximate location of monitoring well and groundwater elevation (measured 5/6/2011)
 - General Direction of Groundwater Flow
 - B-16 Benzene and/or gasoline-range petroleum hydrocarbons detected at a concentration GREATER than the MTCA Method A cleanup level.
 - B-12 Contaminants of concern detected at a concentration LESS than the MTCA Method A cleanup level.
 - B-5 Contaminants of concern NOT DETECTED.
 - Approximate extent of soil with gasoline and/or benzene detected at concentrations greater than the MTCA Method A clean up levels on the subject property.
 - Parcel boundary
 - NM Not Measured
 - Approximate cross section location

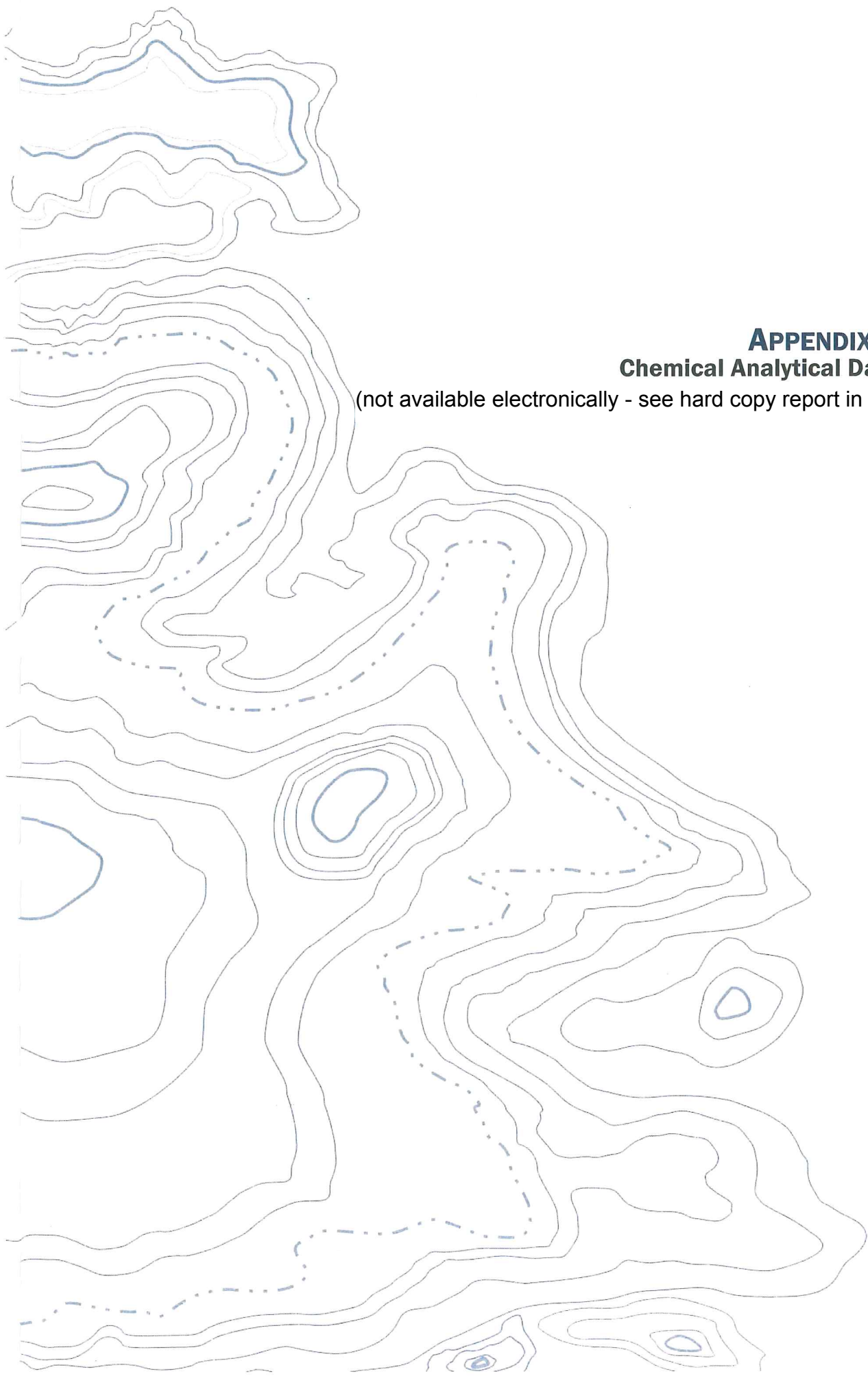


Site Plan	
Former Texaco Service Station 5059 Wilson Avenue Seattle, Washington	
	Figure 2



APPENDIX A
Field Procedures and Boring Logs

(not available electronically - see hard copy report in file)



APPENDIX B
Chemical Analytical Data

(not available electronically - see hard copy report in file)

A topographic map background with contour lines and a dashed path. The map is oriented vertically, with the top of the page showing a peak. A dashed line path winds through the terrain, starting from the top left, moving down and right, then curving around a central peak, and ending near the bottom right. The contour lines are thin and light blue, while the path is a slightly darker blue dashed line.

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

This appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations” provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This focused subsurface soil characterization has been prepared for the exclusive use of the Red Cedar Associates, LLC and their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Red Cedar Associates, LLC should rely on this plan without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

This report applies to the former Texaco Service Station Site located at 5059 Wilson Avenue South in Seattle, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

¹ Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

If important changes are made after the date of this remedial action plan, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Environmental Regulations Are Always Evolving

Some substances may be present in the Site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This report is based on conditions that existed at the time our Site studies were performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the Site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from the sampling locations at the Site documented in past reports. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the Site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. There is always a potential that areas of contamination exist in portions of the Site that were not sampled or tested during this or previous studies. Our supplemental environmental services summary, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

Geotechnical, Geologic and Environmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-Site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the Site or reuse of the affected soil or groundwater on-Site to evaluate the potential for associated environmental liabilities. We are unable to assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the Site to another location or its reuse on-Site in instances that we did not know or could not control.