environ strategy consultants, inc.

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Project No. 468

<u>Confirmation Soil Sampling Report</u> Site 1-288 14312 Lake City Way NE Seattle, Washington

Dear Mr. Sprague:

Environ Strategy Consultants, Inc. is pleased to provide this *Confirmation Soil Sampling Report* (Report) for the above-referenced site. The site location is shown on Figure 1. This Report presents a summary of field activities, findings and analytical results for the excavation event conducted on December 20-21, 2011.

During site redevelopment and the construction of a storm water detention structure, soil containing residual fuel hydrocarbons was excavated and removed from the site. ORC-A was applied to the bottom of the excavation as a means of accelerating the rate of biodegradation of dissolved-phase hydrocarbons. This Report details the results of confirmation soil sampling.

Should you have questions regarding this Report, please contact the undersigned at (714) 919-6500.

Sincerely, ENVIRON STRATEGY

Beily J. Hautins

Becky L. Hawkins, L.G. 2880 Pròject Geologist



Dane Nygaard Program Manager

~ Promoting People, Partnerships, Performance and Environmental Stewardship ~



Mr. Walter Sprague

Director of Retail Services

Pacific Convenience & Fuels, LLC

7180 Koll Center Parkway, Suite 100 Pleasanton, Washington 94566

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EW
Site 1-288 14312 Lake City Way NE Seattle, Washington
Mr. Walter Sprague
Environ Strategy Consultants, Inc. 1036 W. Taft Avenue, Suite 200 Orange, California 92865
ESN 1210 Eastside Street SE, Suite 200 Olympia, Washington 98501 DOE Accreditation No. C076 (Olympia Lab)

SITE DESCRIPTION

The site is located on the east side of Lake City Way just south of the 145th Street intersection in Seattle and is approximately 0.60 acres in size. At the time of the storm water detention excavation and construction activities, the former convenience store building had been demolished and the onsite groundwater monitoring wells had been decommissioned. The site was vacant. The subject property is bordered by commercial properties to the north and south, residential properties to the east and Lake City Way to the west.

The subject property formerly operated as an ExxonMobil retail gasoline station and prior to that, as a bulk fuel terminal. Pertinent site features including the former fuel distribution system are shown on Figure 2. A summary of historical site assessment activities is provided in Appendix A.

SCOPE OF WORK

On December 20 and 21, 2011, Environ Strategy observed the excavation of soil during the construction of an underground storm water detention structure at the site. Car Wash Enterprises (CWE), the current property owner, coordinated and supervised the field work. Because the storm water detention structure was to be located in the general area of impacted soil Environ Strategy was onsite to collect soil samples from the sides and bottom of the excavation in order to confirm that impacted soil had been removed. In addition, Oxygen Release Compound Advanced (ORC-A) was applied to the bottom of the excavation as a way to accelerate the biodegradation of residual dissolved-phase hydrocarbons. The confirmation soil sampling and



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ORC-A application activities were part of the Site Closure Plan drafted to address residual petroleum hydrocarbons remaining in the soil and groundwater in the area of the former USTs located near the southwest corner of the site and along the piping corridor to the former western dispenser island.

SUMMARY DATA

Confirmation Soil Sampling Details

December 20 & 21, 2011 Excavation & sampling dates By hand with EPA 5035 Preparation Sampling Method: Number of Samples: 12 TPH-Gx (Northwest Method), Full-Scan VOCs Sample Analyses: (Method 8260/5035) and Total Lead (Method 6020)

Soil Analytical Results (see Table 1)

Samples with TPH-Gx: 2 Samples with B/T/E/X: 0 Samples with MTBE: 0

Maximum: 220 mg/kg (CS-ES-5) Maximum: ND/ND/ND/ND Maximum: ND

FIELD ACTIVITIES

All field activities including pre-marking, permitting, notifications, site safety meetings and waste management were procured and coordinated by CWE. Environ Strategy personnel were onsite only to observe, collect soil samples and apply ORC-A to the open excavation.

On December 20-21, 2011, Environ Strategy personnel observed the removal of soil from the vicinity of the former UST area and dispenser islands located on the southwest portion of the site (Figure 2). The dimensions of the excavation were dictated by the size and location of the storm water detention structure. As such, confirmation soil samples were pre-determined (collection of sidewall and bottom samples at the south end, center and north end of the excavation).

Subsurface soil predominately consists of dark olive gray Sandy Silt (ML) to Sandy Clay (CL) with occasional poorly graded, fine to coarse grained sand stringers. The excavation was dewatered; however, groundwater was observed seeping into the excavation at an approximate depth of five feet.

Twelve (12) confirmation soil samples were collected from the floor and sidewalls of the excavation by hand via the excavator bucket and submitted for analysis to a State certified laboratory. Confirmation sample locations are shown on Figure 2. Each sample was collected in

environ strategy consultants, in

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accordance with EPA Method 5035 using laboratory prepared containers and analyzed for the following parameters: Total petroleum hydrocarbons quantified as gasoline (TPH-Gx) by Northwest Method NWTPH-Gx, full-scan volatile organic compounds (VOCs) by EPA Method 8260 and total lead by EPA Method 6020.

Before backfilling the excavation, 150 pounds of ORC-A were applied to the floor of the excavation near the area adjacent to former monitoring well MW-1 and north to enhance the cleanup of dissolved-phase hydrocarbons. ORC-A is a patented formulation of calcium oxy-hydroxide that passively releases oxygen upon contact with water. The application of ORC-A is intended to establish a passive *in-situ* oxygen-rich zone to accelerate the rate of dissolved-phase hydrocarbon degradation by increasing the metabolic activity of naturally occurring aerobic microbes.

ANALYTICAL RESULTS

Confirmation sample results associated with the removal of hydrocarbon-affected soil during the construction of the storm water detention structure is provided in the following paragraph. For discussion purposes, analytical results are evaluated based on DOE's *Model Toxics Control Act (MTCA) Chapter 70.105D RCW and Cleanup Regulation Chapter 173-340 WAC*, dated October 2005 (DEQ Publication No. 94-06). Specifically, the following analytical narrative compares soil results to MTCA Method A Table 740-1 Soil Cleanup Levels for Unrestricted Land Uses. Note that the Method A Soil Cleanup Levels for Industrial Properties (MTCA Method A Table 745-1) for petroleum hydrocarbons of interest do not differ significantly from those given under the unrestricted land use scenario. A summary of confirmation soil sample results are presented on Table 1. Confirmation samples locations are shown on Figure 2.

As shown on Table 1, samples CS-ES-5 (confirmation soil sample, east sidewall, collected at five feet below ground surface [ft bgs]) and CS-WS-5 (west sidewall) contained TPH-Gx at concentrations of 220 milligrams per kilogram (mg/kg) and 23 mg/kg, respectively. The TPH-Gx concentration in sample CS-ES-5 exceeds the MTCA Method A Cleanup Level of 100 mg/kg for TPH-Gx in soil when benzene is absent. Note that soil in the area of sample location CS-ES-5 was subsequently removed during further redevelopment activities at the site. TPH-Gx was not detected in the remaining soil samples collected. Samples CS-ES-5 and CS-WS-5 also contained n-propylbenzene at concentrations of 0.14 mg/kg and 0.10 mg/kg, respectively. There are no established cleanup levels for n-propylbenzene. VOCs were not detected in the remaining soil samples collected.

Total lead was detected in ten (10) of the twelve (12) samples collected at concentrations ranging from 5.6 mg/kg (CS-CB-12; center bottom at 12 ft bgs) to 11 mg/kg (CS-CE-5; center east and CS-NC-5; north center), which are below the MTCA Method A Cleanup Level of 250 mg/kg for lead. The laboratory analytical report is provided in Appendix B.



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CONCLUSIONS

During recent site redevelopment activities, hydrocarbon-affected soils were excavated from the location of the storm water detention structure and removed from the site. Confirmation soil sampling results were below MTCA Method A Cleanup Levels except for one sample containing TPH-Gx. However, soil in that area was removed during subsequent site redevelopment.

While the excavation was open, ORC-A was applied to the bottom of the excavation as a means to enhance the biodegradation of dissolved-phase hydrocarbons. The removal of contaminated soil and applying ORC-A complete Task 1 of the Site Closure Plan. All four site groundwater monitoring wells were destroyed during the redevelopment activities and once site redevelopment is complete, the wells will be reinstalled. Additional monitoring wells may be installed at the same time as recommended in Task 2 of the Site Closure Plan.

CLOSURE

Environ Strategy is pleased to be of service to Pacific Convenience & Fuels, Inc. If there are questions regarding this report or if additional site information is required, please do not hesitate to contact Environ Strategy at (714) 919-6500.

ATTACHMENTS:

FIGURES

Figure 1:	Site Location Map
Figure 2:	Confirmation Soil Sample Locations

TABLE

Table 1:Summary of Soil Analytical Results

APPENDICES

Appendix A:	Site Background
Appendix B:	Laboratory Analytical Report



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ACRONYMS:

amsl:	above mean sea level
bgs:	below ground surface
BTEX:	benzene, toluene, ethylbenzene and total xylenes
btoc:	below top of casing
DO:	dissolved oxygen
DOE:	Washington State Department of Ecology
EPA:	Environmental Protection Agency
ESN:	Environmental Services Network
ft:	feet
mg/kg:	milligrams per kilogram
MTCA:	Model Toxics Control Act
MTBE:	methyl tert-butyl ether
MW:	monitoring well
NA:	not applicable
ND:	not detected
NELAP:	National Environmental Laboratory Accreditation Program
OWS:	Oil/Water Separator
PID:	photoionization detector
ppm:	parts per million
TPH-Gx:	total petroleum hydrocarbons quantified as gasoline
UST:	underground storage tank
VOA:	volatile organic analysis
VOCs:	volatile organic compounds



FIGURES





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TABLE

TABLE 1

SUMMARY OF CONFIRMATION SOIL ANALYTICAL RESULTS Pacific Convenience and Fuels Site 01-288 Seattle, Washington 1 of 1

Camalo ID	Sample	Depth	PID Reading	TPH-Gx	В	т	E	X	MTBE	Other VOCs	Total Pb
Sample ID	Date	(ft bgs)	(ppm) '	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			_	NWTPH-Gx			Method 8	3260/5035	-		Method 6020
CS-ES-5 ⁽¹⁾	12/20/11	5	<10.0	220	<0.02	<0.05	<0.05	<0.15	<0.05	(2)	5.7
CS-WS-5	12/20/11	5	<10.0	23	< 0.02	< 0.05	< 0.05	<0.15	< 0.05	(3)	6.2
CS-SS-5	12/20/11	5	<10.0	<10	< 0.02	< 0.05	< 0.05	<0.15	< 0.05	nd	10
CS-B-12'	12/20/11	12	<10.0	<10	< 0.02	< 0.05	< 0.05	<0.15	<0.05	nd	nd
CS-NW-5	12/20/11	5	1310	<10	< 0.02	<0.05	< 0.05	<0.15	<0.05	nđ	9.6
CS-CB-12	12/21/11	12	15	<10	< 0.02	< 0.05	< 0.05	<0.15	<0.05	nd	5.6
CS-CE-5	12/21/11	5	18	<10	< 0.02	<0.05	< 0.05	<0.15	<0.05	nd	11
CS-CBa-12	12/21/11	12	<10.0	<10	< 0.02	< 0.05	< 0.05	<0.15	<0.05	nd	. 6.5
CS-NNW-5	12/21/11	5	18	<10	< 0.02	< 0.05	< 0.05	<0.15	<0.05	nd	nd
CS-NB-12	12/21/11	12	<10.0	<10	< 0.02	<0.05	<0.05	<0.15	< 0.05	nd	8.2
CS-NC-5	12/21/11	5	20	<10	< 0.02	<0.05	<0.05	<0.15	<0.05	nd	11
CS-NE-5	12/21/11	5	14	<10	<0.02	<0.05	< 0.05	<0.15	<0.05	nd	8.8
MTCA N	Aethod A C	eanup Lev	vels ⁽⁴⁾	100/30 ⁽⁵⁾	0.03	7	6	9	0.10	na	250

Bold where results exceed cleanup levels

(1): soil subsequently removed during construction of bioretention planter and building

(1): Soft Subsequently reinforce during construction of creating prime and prime prime and prime pr

(5): 100 mg/kg when benzene is absent and 30 mg/kg when benzene is present

<: not detected above laboratory reporting limit

BTEX: benzene, toluene, ethylbenzene, total xylenes

ft bgs: feet below ground surface mg/kg: milligrams per kilogram

MTBE: methyl tert-butyl ether

MTCA: Model Toxics Control Act

na: not applicable

nd: not detected

Pb: lead

PID: photoionization detector

ppm: parts per million

TPH-Gx: total gasoline-range petroleum hydrocarbons, analyzed by Northwest Method NWTPH-Gx

VOCs: volatile organic compounds



APPENDIX A

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Site Background

SITE DESCRIPTION AND BACKGROUND

Site 01-288 14312 Lake City Way NE Seattle, Washington

The site is located on the eastern side of Lake City Way just south of the 145th Street intersection in Seattle and is approximately 0.60 acres. The site is currently a vacant lot paved with asphalt and concrete. A convenience store, no longer in operation, is centrally located on the property. The site is bordered by an insurance company office to the north, residential properties to the east, an automobile repair shop to the south, and Lake City Way to the west.

The subject property formerly operated as an ExxonMobil retail gasoline station. Before its operation as an ExxonMobil station, the site was used as a bulk fuel terminal by the former Time Oil Co. (currently TOC Holdings Co., Inc.). Six USTs and an oil/water separator (OWS) were located on the property. Specifically, three tanks were located on the northeastern and three on the southwestern portions of the property and utilized for bulk and retail fuel operations, respectively. Pertinent site features are shown on Figure 2.

On October 8, 2007, Environ Strategy performed a baseline environmental site assessment. Four soil borings (identified as SB-1 through SB-4) were advanced to assess subsurface soil and groundwater conditions in the vicinity of the fuel distribution system associated with the former ExxonMobil station. In addition, one boring, SB-5, was advanced adjacent to the OWS tank. The boring locations are shown on Figure 2. Results from the baseline assessment indicate that soil and groundwater beneath the site is impacted with fuel constituents exceeding MTCA Method A Cleanup Levels.

In December 2007, Landau Associates observed the removal of three (3) USTs associated with the former bulk distribution system (northeast corner of the site). Upon inspection, the 10,000-, 12,000-, and 20,000-gallon capacity USTs appeared in good condition with no visible signs of degradation, e.g. holes or corrosion. Confirmation soil samples collected from the sidewalls and floor of the resulting tank cavity did not contain TPH-Gx, TPH-Dx, BTEX, or lead above the respective MTCA Method A Cleanup Level. Additional details pertaining to UST removal activities, findings and results are presented in the *Underground Storage Tank Removal and Site Characterization Report*, dated August 26, 2008, prepared by Landau Associates.

In July 2008, Landau Associates oversaw the removal of the former ExxonMobil fuel retail distribution system located on the southwestern portion of the property. The fueling system comprised of two 10,000-gallon USTs and one 12,000-gallon UST, two dispenser islands and ancillary piping.

Upon inspection, the USTs appeared in good condition; there was no evidence of holes, pitting, corrosion or other indications of tank degradation or damage. Additionally, the fuel dispensers, associated product piping, and a 3,000-gallon OWS tank were removed from the site. The OWS tank appeared in good condition.

Confirmation soil samples were collected using the excavator bucket from the floor and sidewalls of each resulting tank cavity, the base of the trench corridors and beneath the former dispenser islands. A few of the confirmation samples contained fuel constituents above the respective MTCA Method A Cleanup Level and are bulleted below.

- Sample results from the floor of the UST excavation identified one (1) bottom sample (UST-2-B-12) from beneath the center tank that contained benzene at 0.14 milligrams per kilogram (mg/kg) and TPH-Gx at 33.5 mg/kg, which are above the MTCA Method A Cleanup Level of 0.03 mg/kg for benzene and 30.0 mg/kg for TPH-Gx.
- Samples collected from the northeast dispenser (UST-D1-B1), the northwest dispenser (UST-D3-B2), and the southwest dispenser (UST-D4-B1) also contained benzene at 0.78 mg/kg, 0.47 mg/kg and 0.71 mg/kg, respectively.

Approximately 75 tons of PCS (petroleum-contaminated soil) was stockpiled and transported offsite for thermal desorption. Excavated areas were backfilled with clean imported fill (predominately coarse gravel and crushed concrete) and paved with asphalt. Additional details summarizing the removal of the fuel distribution system is presented in the UST Removal Report, dated September 5, 2008, prepared by Landau Associates.

On September 4, 2008, Environ Strategy advanced four soil borings (SB-6 through SB-9) to define the vertical extent of residual contamination identified in the above-referenced *UST Removal Report*. As shown on Figure 2, Borings SB-6 and SB-7 were advanced at the former east and west dispenser islands, respectively, where excavation confirmation samples contained residual levels of fuel contaminants, namely benzene, above soil cleanup levels. Boring SB-8 was advanced to assess groundwater quality beneath the former OWS tank and SB-9 was advanced through the center of the UST excavation where confirmation bottom sample UST-2-B-12 was collected. As mentioned, sample UST-2-B-12 contained benzene just above the established cleanup level. Assessment results are bulleted below:

• <u>Former East Dispenser Island (SB-6)</u>: The soil sample collected at SB-6 at 4 ft bgs contained benzene at 0.10 mg/kg, which is consistent with the level of benzene (0.78 mg/kg) reported in the UST Removal Report, confirmation sample UST-D1-B1. Groundwater was encountered at approximately 4.5 feet bgs and contained MTBE at

120 μ g/L. Neither TPH-Gx nor BTEX constituents were detected in groundwater sample SB-6.

- Former West Dispenser Island (SB-7): The soil sample collected at SB-7 at 5 ft bgs did not contain fuel constituents above cleanup levels; whereas, benzene was detected above the respective cleanup goal for the two dispenser island confirmation samples [UST-D3-B2 (0.47 mg/kg) and UST-D4-B1 (0.71 mg/kg)]. The dispenser island confirmation samples were collected at an approximate depth of 3 feet suggesting that a relatively thin zone (2-foot thick) of hydrocarbon-affected soil is present between 3 and 5 feet bgs. In SB-7, groundwater was encountered at approximately 5 feet bgs; whereupon, a sample was collected. Groundwater sample SB-7 contained TPH-Gx at 9,900 μg/L, benzene at 120 μg/L and xylenes at 1,600 μg/L, which are above the respective MCTA Method A Cleanup Levels of 800 μg/L, 5 μg/L and 1,000 μg/L.
- <u>UST Excavation (SB-9)</u>: Soil Boring SB-9 was advanced through the UST excavation and corresponds to the approximate location of a tank bottom sample, UST-2-B-12, which contained TPH-Gx at 33.5 mg/kg and benzene at 0.14 mg/kg. Two soil samples, SB-9-12 and SB-9-14, were collected at depths of 12 feet and 14 feet, respectively. Samples SB-9-12 and SB-9-14 did not contain detectable levels of TPH-Gx or benzene; however, MTBE was detected at 0.12 mg/kg and 0.08 mg/kg, respectively.

The absence of TPH-Gx and benzene in the 12-foot sample (SB-9-12) and 14-foot sample (SB-9-14) suggests that the relatively low levels of TPH-Gx (33.5 mg/kg) and benzene (0.14 mg/kg) detected in confirmation sample UST-2-B-12 is likely attributed to cross-contamination. This explanation appears plausible considering sample UST-2-B-12 was collected from the excavator bucket.

Groundwater sample SB-9 contained MTBE at 73 μ g/L. Neither TPH-Gx nor BTEX compounds were detected in groundwater sample SB-9.

• <u>OWS Tank Excavation (SB-8)</u> - Soil Boring SB-8 was advanced through the former OWS tank cavity to facilitate the collection of a representative groundwater sample. Groundwater sample MW-8 did not contain fuel constituents above MCTA Method A Cleanup Levels.

On October 2, 2008, Environ Strategy oversaw the removal of hydrocarbon-affected soil beneath the former dispenser islands. Confirmation soil samples collected from the floor and sidewalls of the excavations were either non-detect for fuel constituents or contained trace levels below MCTA Method A Cleanup Levels. Benzene was not detected in any of the final confirmation soil samples. Approximately 55 cyds of soil was transported offsite for disposal. Excavated

areas were backfilled with clean imported fill to grade and paved with asphalt. Additional details summarizing soil excavation activities is presented in the Addendum – Underground Storage Tank and Site Characterization Report, dated November 14, 2008, prepared by Environ Strategy.

In October 29, 2008, four groundwater monitoring wells, identified as Wells MW-1 through MW-4 were installed at the site. With the exception of benzene, fuel hydrocarbons were not detected at levels exceeding MTCA Method A Cleanup Levels in the soil samples selected for analysis from Borings MW-1 through MW-4. Benzene was detected at 0.13 mg/kg in the 5-foot sample collected at MW-1, which is above the cleanup level of 0.03 mg/kg for benzene. Field activities, observations and soil analytical results associated with the installation of Well MW-1 through MW-4 are summarized in the *Well Installation Report*, dated November 14, 2008, prepared by Environ Strategy.

A quarterly groundwater monitoring program was implemented for the site and Wells MW-1 through MW-4 were initially sampled in the Fourth Quarter 2008.

On November 7, 2008, BioTrap samplers were deployed in each site well to facilitate the collection of biological data. Specifically, BioTrap samplers baited with carbon isotope (¹³C)-labeled benzene were deployed in Well MW-3 and an unbaited BioTrap sampler was deployed in Well MW-1. The samplers remained in the wells for a period of 61 days.

On January 7, 2009, the BioTrap samplers were retrieved from the wells and submitted to Microbial Insights, an analytical laboratory located in Rockford, Tennessee for analysis. Analytical results for the Bio-Trap samplers showed conclusive evidence that biodegradation of petroleum constitutes, namely benzene, is naturally occurring in groundwater beneath the site. Additional details are provided in the Second Quarter 2009 Groundwater Monitoring Report, dated June12, 2009.

On September 22, 2009, groundwater monitoring and assessment activities were conducted at the subject property. Third Quarter 2009 groundwater monitoring consisted of collection of water levels and groundwater samples from Wells MW-1 through MW-4. Additional site assessment activities to delineate the extent of sorbed (soil)- and dissolved-phase contaminants in the vicinity of the former fuel distribution system consisted of collecting three groundwater grab samples (GW-1, GW-2 and GW-3) and drilling two soil borings (SB-10 and SB-11). Groundwater samples were also collected from SB-10 and SB-11.

Based on the groundwater monitoring and the additional assessment sampling results, it appears that dissolved-phase TPH-Gx and benzene levels have decreased and are consistent with historical data, specifically at Well MW-1. Groundwater analytical results detected TPH-Gx up to 200 μ g/L at MW-1; benzene up to 12 μ g/L at MW-1 and 14 μ g/L at GW-2 (grab sample); and

MTBE up to 1.3 μ g/L at Well MW-1, but also at 190 μ g/L at GW-3 (grab sample southwest of tank cavity). The MTCA Method A Cleanup Level is exceeded for benzene (5 μ g/L) and MTBE (20 μ g/L).

Soil data was collected at SB-10 and SB-11 to delineate the extent of hydrocarbon-affected soil that was identified in a 5-foot sample while installing Well MW-1. Step-out sample results are non-detect with the exception of the 5-foot sample from SB-11 (identified as SB-11-5). Sample SB-11-5 contained benzene at 0.41 mg/kg, which is above the MCTA Method A Cleanup Level of 0.03 mg/kg for benzene.

Groundwater monitoring activities have been ongoing since the Fourth Quarter 2008. Results from the *Fourth Quarter 2011 Groundwater Monitoring Report*, dated January 19, 2011 indicate that Well MW-1 contained concentrations of TPH-Gx (140 μ g/L), benzene (2.0 μ g/L), toluene (2.1 μ g/L), ethylbenzene (4.7 μ g/L), and total xylenes (9.9 μ g/L) at concentrations below State cleanup levels. The remaining site wells did not contain detectable concentrations of fuel hydrocarbons.

APPENDIX B

Laboratory Analytical Report



December 29, 2011

Becky Hawkins Environ Strategy 1036 West Taft Avenue, Suite 200 Orange, CA 92865

Dear Ms. Hawkins:

Please find enclosed the analytical data report for the Lake City Way Project in Seattle, Washington. Soil samples were analyzed for Gasoline by NWTPH-Gx, 8260 by Method 8260, and Pb by Method 6020 on December 28, 2011.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to you for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael a Korree

Michael A. Korosec *President*

1210 Eastside Street SE, Suite 200 🖬 Olympia, Washington 98501 🖬 360.459.4670 📾 FAX 360.459.3432 Web Site: www.esnnw.com E-Mail: info@esnnw.com

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	12/22/2011	12/28/2011	107	nd
LCS	12/22/2011	12/28/2011	101	94%
CS-ES-5	12/22/2011	12/28/2011	107	220
CS-WS-5	12/22/2011	12/28/2011	111	23
CS-SS-5	12/22/2011	12/28/2011	102	nd
CS-B-12'	12/22/2011	12/28/2011	97	nd
CS-NW-5	12/22/2011	12/28/2011	97	nd
CS-NW-5 Duplicate	12/22/2011	12/28/2011	111	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits. "int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington

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ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting		LCS		CS-ES-5	CS-WS-5	CS-SS-5	CS-B-12'	CS-NW-5
Date extracted	Limits	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11
Date analyzed	(mg/Kg)	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	• nd	nd	nd
Vinyl chloride	0.05	nd			nd	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd	nd
Acetone	250	nd			nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	69%	78%	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd			nd	nd	nd	nd	, nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd
Chloroform	0.05	nd	76%		nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd	nd
Benzene	0.02	nd	94%	93%	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	97%	94%	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd		2	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			_nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
Toluene	0.05	nd	95%	89%	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	'nď	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	•		nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	103%	98%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd ·			nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	99%	95%	nd	nd	nd	nd	nd
Xylenes	0.15	nd	100%	91%	nd	nd	nd	nd	nd
Styrene	0.05	nd		•	nd	nd	nd	nd	nd
Bromoform	0.05	nd			'nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd	nd

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	ITH BLK	LCS	LCSD	CS-ES-5	CS-WS-5	CS-SS-5	CS-B-12'	CS-NW-5
Date extracted	Limits	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11	12/22/11
Date analyzed	(mg/Kg)	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11	12/28/11
Bromobenzene	0.05	лd			nd	nd	nd	nd	- • •
n-Propylbenzene	0.05	nd			0.14	0.10	nd	nd	nd
2-Chlorotoluene	0.05	nd			0.14 nd	0.10 nd			nd
4-Chlorotoluene	0.05	nd					nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd - J	nd	nd	nd
tert-Butylbenzene	0.05	, nd			nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	. nd nd			nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.03				nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Isopropyltoluene		nd			nd	nd	nd	nd	nd
	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Naphthalene	0.05	nd			nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		93%	83%	76%	74%	74%	70%	76%	76%
Toluene-d8		107%	97%	96%	105%	105%	122%	105%	105%
4-Bromofluorobenzene		107%	107%	104%	107%	111%	102%	105%	105%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

Environ Strategy Consultants, Inc. LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Total Lead in Soil by Method 6020

Sample	Date	Date	Lead (Pb)
Number	Prepared	Analyzed	(mg/kg)
Method Blank	12/27/2011	12/28/2011	nd
CS-ES-5	12/27/2011	12/28/2011	5.7
CS-ES-5 Duplicate	12/27/2011	12/28/2011	9.7
CS-WS-5	12/27/2011	12/28/2011	6.2
CS-SS-5	12/27/2011	12/28/2011	10
CS-B-12'	12/27/2011	12/28/2011	nd
CS-NW-5	12/27/2011	12/28/2011	9.6
			•
Reporting Limit			5.0

"nd" Indicates not detected at listed detection limits.

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QA/QC Data - Analysis of Total Metals in Soil by Method 6020

Sample Number	: QC Batch					_	
		Matrix Spike	e	Matr	ix Spike Du	plicate	RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	82	79	96	77	· 71	92	4.38
	Labora	atory Control	Sample	- <u></u>			
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)				
Lead (Pb)	100	99	99		i		

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120% ACCEPTABLE RPD IS 35%

1 CLENT: EPV/COD Strategy Cource Liberty, Tor. DATE:12/20/11 PAGE OF ADDRESS: JOSIG: W. Taft Arc., Shy 200 PROJECT NAME: Lake C: ty, Lay, Date:12/20/11 PAGE OF PHONE: 314_919-6532 FAX: OLIENT PROJECT #4/670 PROJECT NAMAGER: Nature: Collectors: B. Nature: Collectors: B. Nature: Collectors: B. Nature: Collectors: B. Nature: Collectors: Collec	ณ่			ronmen ics Netw		Olympia Bellevu														F	-CUSTOD	Y REC		
PHONE: 314_015_632 FAX: LOCATION: 11312_016_664 Location: 11312_016_66 Location: 11312_016 Location: 11312_016 <thlocation: 11312_016<="" th=""> Location: 11312_016</thlocation:>	•	CLIENT: Envia	on S	Stra	legy	Consi	140	<u> </u>	Ţ	5~	<u>.</u>			D	ATE	2	20	<u>[]</u>			_ PAGE			
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December 30, 2011

Becky Hawkins Environ Strategy 1036 West Taft Avenue, Suite 200 Orange, CA 92865

Dear Ms. Hawkins:

Please find enclosed the analytical data report for the Lake City Way Project in Seattle, Washington. Soil samples were analyzed for Gasoline by NWTPH-Gx, 8260 by Method 8260, and Pb by Method 6020 on December 28 - 30, 2011.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to you for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael a Konner

Michael A. Korosec *President*

1210 Eastside Street SE, Suite 200
Olympia, Washington 98501
Ste: www.esnnw.com
E-Mail: info@esnnw.com

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample	Date	Date	Surrogate	Gasoline Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)
Method Blank	12/23/2011	12/30/2011	114	nd
LCS	12/23/2011	12/30/2011	110	99%
CS-CB-12	12/23/2011	12/30/2011	109	nd
CS-CE-5	12/23/2011	12/30/2011	112	nd
CS-Cba-12	12/23/2011	12/30/2011	119	nd
CS-NNW-5	12/23/2011	12/30/2011	111	nd
CS-NB-12	12/23/2011	12/30/2011	119	nd
CS-NC-5	12/23/2011	12/30/2011	122	nđ
CS-NE-5	12/23/2011	12/30/2011	124	nd
CS-NE-5 Duplicate	12/23/2011	12/30/2011	121	nd
Reporting Limits				

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington

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Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

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Analytical Results

<u> </u>	Reporting	MTH BLK	LCS	LCSD	CS-CB-12	CS-CE-5	CS-CBa-12	CS-NNW-
Date extracted	Limits	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11
Date analyzed	(mg/Kg)	12/30/11	12/30/11	12/30/11	12/30/11	12/30/11	12/30/11	12/30/11
Dichlorodifluoromethane	0.05	nđ			nd			
Chloromethane	0.05	nd				nd	nd	nd
Vinyl chloride	0.05	. ng			nd	nd	'nd	nd
Bromomethane	0.05	nd			nd nđ	nd	nd	nd
Chloroethane	0.05	nd			nd	nd nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd		nd	nd
Äcetone	0.25	nd			nd	nd	nd	nd
1.1-Dichloroethene	0.05	nd	136%	129%	nd	nd nd	nd	nd
Methylene chloride	0.02	nd	15070	12,7/0	nd	nu nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nđ nd	nd
trans-1.2-Dichloroethene	0.05	nd			nd	nd nd		nd
1.1-Dichloroethane	0.05	nđ			nđ	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nđ			nd.	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nđ	nd	nđ	nd
Chloroform	0.05	nd			nd	nd	nd	. nđ
Bromochloromethane	0.05	nd	x		nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd .	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	· nd	nd nd	nđ
1,1-Dichloropropene	0.05	nd			nd	nd		nd
Carbon tetrachloride	0.05	nd			nd	nd	nd nd	nd
Benzene	0.02	nd	119%	Ì16%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	116%	115%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd		11270	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nđ	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	`		nd	nđ	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	'nđ	nd
Foluene	0.05	nd	108%	106%	nd	nd	nd	nd
rans-1,3-Dichloropropene	0.05	nd	20070	10070	nd	nd		nd
1,1,2-Trichloroethane	0.05	nd			ńd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	ņd
,3-Dichloropropane	0.05	nd			nd	nđ	- nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd nd	nd
Tetrachloroethene (PCE)	0.02	nd			nd	' nd		nd
,2-Dibromoethane (EDB)	0.05	nd	•		nd	nd	nd nd	nd
Chlorobenzene	0.05	nd	110%	108%	nd	nd	nd	nd
1.1.2 Tetrachloroethane	0.05	nd	110/0	10070	nd	nd		' nd
Sthylbenzene	0.05	nd			nd	nd	nd nd	nd
Kylenes	0.15	nd			nđ	nd		nd
styrene	0.05	nd			nd	nd	nd nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd nd	nd
sopropyIbenzene	0.05	nd			nd	nd	nd	nd
,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle; Washington

ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (3 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

Analytical Results								
	Reporting	MTH BLK	LCS	LCSD	CS-CB-12	CS-CE-5	CS-CBa-12	CS-NNW-5
Date extracted	Limits	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11	12/23/11
Date analyzed	(mg/Kg)	12/30/11	12/30/11	. 12/30/11	12/30/11	12/30/11	12/30/11	12/30/11
Bromobenzene	0.05	nd			nd	nđ	nđ	nd
n-Propylbenzene	0.05	nd			nd	nd	- nđ	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nđ
4-Chlorotoluene	0.05	nd			nđ	nd	' nd	nđ
1,3,5-Trimethylbenzene	0.05	, nd			nd	nd	nd	nđ
tert-Butylbenzene	0.05	nd		1	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd	nd	'nđ
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nď			nd	'nď	nđ	ńd
Isopropyltoluene	0.05	nď			nd	nď'	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	'nđ	nd	nd
n-Butylbenzene	0.05	nđ			nd	nđ	nd	nď
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd .	nđ	nđ
1,2,4-Trichlorobenzené	0.05	nd			nd	nd	nd	nd
Naphthalene	0.05	nđ			nd	nđ	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nđ	nd	nđ
1,2,3-Trichlorobenzene	0.05	nd			nd.	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		93%	95%	93%	108%	117%	108%	123%
Toluene-d8		103%	97%	97%	104%	103%	102%	103%
4-Bromofluorobenzene	i •	114%	107%.	106%	109%	112%	119%	. 111%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits; 65% TO 135% Acceptable RPD limit; 35%

Environ Strategy Consultants, Inc PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

Anarytical Results	D	00 200 45	00 10 -	(10) T
Data autorated	Reporting	CS-NB-12	CS-NC-5	
Date extracted	Limits	12/23/11	12/23/11	12/23/11
Date analyzed	(mg/Kg)	12/30/11	12/30/11	12/30/11
Dichlorodifluoromethane	0.05	nd	nd	nd
Chloromethane	0.05	nd	nd	nd
Vinyl chloride	0.05	nd	nd	nd
Bromomethane	0.05	nd	nd	nd
Chloroethane	0.05	nd nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd
Acetone	0.05	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
Methylene chloride	0.03	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.02	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd
2-Butanone (MEK)	0.05	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd
I,1-Dichloropropene	0.05	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd
Benzene	0.03	- nd	nđ	nd
Trichloroethene (TCE)	0.02	- nd nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.05	nd	nd	nd
cis-1,3-Dichloropropene	0.25	nd	nd	nd
Toluene	0.05	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd
2-Hexanone	0.05	nd	.nd	nd
1,3-Dichloropropane	0.25	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd
Tetrachloroethene (PCE)	0.03	nd	nd	nd
1,2-Dibromoethane (EDB)	0.02	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd
Xylenes	0.05	nd	nd	nd
Styrene	0.05	nd	nd	nd
Bromoform	0.05	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	· nd	nd
Isopropylbenzene	0.05	nd		
			nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd

Environ Strategy Consultants, Inc PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	CS-NB-12	CS-NC-5	CS-NE-5
Date extracted	Limits	12/23/11	12/23/11	12/23/11
Date analyzed	(mg/Kg)	12/30/11	12/30/11	12/30/11
Bromobenzene	0.05	nd	nd	nd
n-Propylbenzene	0.05	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	` nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd
1,3-Dichlorobenzene	0.05	nđ	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd
Naphthalene	0.05	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd
Surrogate recoveries				
Dibromofluoromethane		122%	130%	135%

4-Bromofluorobenzene	119%	122%	124%
Toluene-d8	104%	100%	101%
Dibromofluoromethane	122%	130%	135%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

Environ Strategy Consultants, Inc LAKE CITY WAY PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Total Lead in Soil by Method 6020

2

Sample	Date	Date	Lead (Pb)
Number	Prepared	Analyzed	(mg/kg)
Method Blank	12/27/2011	12/28/2011	nd
CS-CB-12	12/27/2011	12/28/2011	5.6
CS-CB-12 Duplicate	12/27/2011	12/28/2011	6.1
CS-CE-5	12/27/2011	12/28/2011	11
CS-Cba-12	12/27/2011	12/28/2011	6.5
CS-NNW-5	12/27/2011	12/28/2011	nd
CS-NB-12	12/27/2011	12/28/2011	8.2
CS-NC-5	12/27/2011	12/28/2011	11
CS-NE-5	12/27/2011	12/28/2011	8.8
Reporting Limit		, · ·	. 5.0

"nd" Indicates not detected at listed detection limits.

Environ Strategy Consultants, Inc Seattle, Washington PROJECT Client Project #468 Seattle, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

QA/QC Data - Analysis of Total Metals in Soil by Method 6020

		Matrix Spike		Matr	RPD		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	82	79	96	77	71	92	4.38
La	boratory Control	Sample					

·	Spiked	Measured	Spike
	Conc.	Conc.	Recovery
	(mg/kg)	(mg/kg)	(%)
Lead (Pb)	100	99	99

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120% ACCEPTABLE RPD IS 35%

ESN NORTHWEST, INC.		ronmen :es Netw		Olympia: (360) 459-4670 Bellevue: (360) 957-9872										CHAIN-OF-CUSTODY												YI	' RECORD				
CLIENT: Environ Stratecy Consultante 1 In.															DATE: 12/22/11 PAGE												Ċ	DF			
ADDRESS: 1036 W. Toft Am. Suito 200															PROJECT NAME: Lake City Way															-	
PHONE: 999 714-919-6532 FAX:													1	LOCATION: Srattle, WA																_	
CLIENT PROJECT #: 468				PROJECT MANAGER B. Hachle'																		<u>'n</u>	<u>مر</u>				DATE OF 12/2/3 COLLECTION 12/22/11				
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