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PHASE II ENVIRONMENTAL SITE ASSESSMENT:

SUBSURFACE INVESTIGATION REPORT

King County Parcel #6844700005
9418 35th Avenue NE
Seattle, WA 98115

September 26, 2024

Prepared for:

LMJ Enterprises
11845 NE 85th Street
Kirkland, WA 98033

Prepared by:

Dixon Environmental Services LLC
4010 N 7th Street
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1.0 Introduction

On behalf of LMJ Enterprises, Dixon Environmental Services (Dixon ES) has prepared this Phase II Environmental Site Assessment (ESA): Subsurface Investigation (SI) Report for the parcel addressed at 9418 35th Avenue NE in Seattle, Washington (the Property) (Figures 1 and 2). This SI was conducted to evaluate the environmental quality of the Property due to the current and historical use of the Property as an automotive repair facility, and historical use as a gas station.

Previous investigations, discussed within the body of this report, indicate that the environmental quality of the Property had been impacted by the former land use, but that conditions were remediated to the satisfaction of the Washington State Department of Ecology (Ecology). Upon Ecology's review of the compliance sampling data, a No Further Action Detmerination was issued, dated April 23, 2012.

Dixon ES reviewed the information presented in the closure documents and performed a site visit, then determined that the following conditions remained as potential environmental concerns for the Property:

- The automotive repair facility is equipped with two active underground hydraulic hoists and one inactive underground hydraulic hoist. These units are likely equipped with oil reservoirs which could leak into the subsurface.
- There are three floor drains present within the automotive repair facility. If the structural integrity of these drains were to be compromised, this would act as a conduit to the subsurface for any hazardous materials used in business operations such as used oil, gasoline, or parts cleaning solvents.
- An above ground waste oil tank and several drums were staged on the eastern side of the building, without appropriate secondary containment.

This SI Report details site activities and observations, investigation methodology, sample analytical results, and provides conclusions based on the investigation findings.

2.0 Property Location, Description, and Background

The Property consists of a single King County Tax Parcel (#6844700005), 0.27 acres in size, addressed at 9418 35th Avenue NE in Seattle, Washington (Figures 1 and 2).

The Property is currently improved with a 1,680 square foot auto service facility, generally positioned on the southern portion of the parcel. At the time of this investigation, the tenant for the repair facility was Johnson's Auto Repair. The current Property layout is depicted on Figure 2.

2.1 Property Land Use History

Based on a review of historical aerial photographs and archived tax records, it appears the Property was originally developed with a single-family domestic dwelling sometime prior to 1936. In 1954, the Property was developed with a fuel/service facility, which was then replaced by a second vintage facility in 1967.

The fuel distribution system was reportedly decommissioned in 1990, after which the Property operated solely as an automotive service facility.

2.2 Physical Setting

Category	Description	Source
Topographic Characteristics		
Site Elevation	270 feet above mean sea level.	USGS Topographic Map Seattle North, WA (2020)
Topographic Gradient	The general topographic gradient at the Property is from southwest to northeast.	Field Observations, USGS Topographic Map Seattle North, WA (2020)
Hydrologic Characteristics		
Surface Water Runoff	Runoff at the Property appears to be managed via drain basins installed within the asphalt parking areas.	Field Observations
Nearest Water Body	Thorton Creek: Approximately 2,300 feet to the northeast of the Property.	USGS Topographic Map Seattle North, WA (2020)
Flood Zones	Zone X: Areas Determined to be Outside the 0.2% Annual Flood Hazard zone.	FEMA Map Panel 53033C0333G
Wetlands	The Property does not appear to lie within the National Wetland Inventory.	USGS Topographic Map Seattle North, WA (2020)

Category	Description	Source
Geologic Characteristics		
Primary Soil Types	Soil encountered during this investigation generally consisted of fine to medium grained sand with variable silt and gravel content to the maximum depth explored of 15 feet below ground surface (bgs).	Drilling Observations (Exhibit C: Boring Logs)
Fill Material	Apparent fill material was encountered in the borings advanced within the former tank and dry well excavation areas (Section 2.3).	Drilling Observations (Exhibit C: Boring Logs)
Hydrogeologic Characteristics		
Depth to Nearest Groundwater	Groundwater was not encountered during this investigation, nor was it encountered during previous investigations/interim actions to the maximum depth explored of 17 feet bgs. The nearest drilling log that could be found through a search of Ecology's well log repository was addressed at 3544 NE 91st Street, which is located less than 1,000 feet to the south of the Property. Groundwater was reportedly not encountered in this boring, which was terminated at 35 feet bgs.	Drilling Observations (Exhibit C: Boring Logs)
Groundwater Flow Direction	Based on a review of regional topography and geomorphology, it appears that shallow-seated groundwater (if present), may flow in a northeasterly direction toward localized low-lying areas.	USGS Topographic Map Seattle North, WA (2020)
Nearest Groundwater Supply Wells	There do not appear to be any active groundwater supply wells located within 1-mile of the Property.	Ecology Well Log Search

2.3 Previous Environmental Investigations

According to a Report of Remedial Action Underground Storage Tank Removal, prepared by GeoEngineers, dated February 13, 1991, 5 USTs were removed from the Property in 1967, when Unocal began occupying the Property. The tank contents and capacities were as follows: one 3,000-gallon gasoline UST, one 4,000-gallon gasoline UST, one 5,000-gallon gasoline UST, one 550-gallon heating oil UST, and one 280-gallon waste oil UST.

The original tanks were reportedly replaced with two 10,000-gallon gasoline USTs, one 550-gallon heating oil UST, and one 550-gallon waste oil UST, which were then removed in 1989.

The last vintage of USTs on the Property included two 12,000-gallon gasoline USTs, and one 550-gallon waste oil UST, which were removed in 1990 along with the vent lines, pump island, canopy, and a dry well. Historical site features are presented on Figure 2.

The report referenced above details a comprehensive subsurface assessment that was conducted during the 1990 fuel station decommissioning, which is included as Exhibit D.

During the removal of the two 12,000-gallon gasoline USTs, no evidence of contamination was noted and 10 confirmation soil samples were collected from the sidewalls and base of the excavation. The samples were analyzed for the presence of petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes (BTEX). These contaminants were not detected above the laboratory reporting limits in any of the ten samples.

During the removal of the 550-gallon waste oil UST, no evidence of contamination was noted and 5 confirmation soil samples were collected from the sidewalls and base of the excavation. All 5 samples were analyzed for the presence petroleum hydrocarbons and 1 was also analyzed for the presence of chlorinated solvents. These contaminants were either not detected above laboratory reporting limits, or were detected at concentrations below their respective MTCA Method A Cleanup Levels.

During the removal of the product and vent lines, no evidence of contamination was noted and 8 confirmation soil samples were collected from the sidewalls and base of the excavation. The samples were analyzed for the presence of petroleum hydrocarbons and BTEX. These contaminants were either not detected above laboratory reporting limits, or were detected at concentrations below their respective MTCA Method A Cleanup Levels.

During the removal of the pump island, field screening and performance sampling indicated the presence of contamination, which resulted in the removal of approximately 25 cubic yards of petroleum contaminated soil (PCS). While excavating in this area, additional petroleum contamination was encountered in the vicinity of the 1967 vintage USTs. This resulted in the removal of an additional approximately 200 cubic yards of PCS. Thirteen confirmation soil samples were

collected from the sidewalls and base of the final limits of the excavation. The samples were analyzed for the presence of petroleum hydrocarbons and BTEX. These contaminants were either not detected above laboratory reporting limits, or were detected at concentrations below their respective MTCA Method A Cleanup Levels.

During the removal of the dry well, field screening and performance sampling indicated the presence of contamination, which resulted in the removal of approximately 400 cubic yards of PCS. Ten confirmation soil samples were collected from the sidewalls and base of the final limits of the excavation. All 10 samples were analyzed for the presence of petroleum hydrocarbons and 1 was also analyzed for the presence of chlorinated solvents. These contaminants were either not detected above laboratory reporting limits, or were detected at concentrations below their respective MTCA Method A Cleanup Levels.

The cleanup report indicated that the 625 yards of PCS was pending approval for disposal at Kitsap County Landfill.

The cleanup documentation was reviewed by Ecology in 2012, who subsequently issued a No Further Action Determination associated with the releases (Exhibit D).

Based on these findings, it appeared that the remaining potential environmental concerns associated with the auto repair facility included: the presence of underground hydraulic hoists; the presence of an interior drain system; and exterior staging of hazardous materials without appropriate secondary containment.

3.0 Subsurface Investigation Tasks and Methodology

3.1 Approved Scope of Work

The approved scope of work for this SI included:

- Development of a project work plan;
- Identification of public and private utilities;
- Oversight of direct push drilling activities;
- Collection and laboratory analysis of soil samples; and,
- Preparation of this report.

3.2 Contaminants of Concern

Based on the research conducted by Dixon ES, the contaminants of concern (COCs) for the Property include:

- Gasoline-range Petroleum Hydrocarbons (GRPH);
- Diesel-range Petroleum Hydrocarbons (DRPH);
- Oil-range Petroleum Hydrocarbons (ORPH);
- BTEX; and,
- Chlorinated VOCs (cVOCs) commonly present in parts cleaning solvents, including: tetrachloroethylene (PCE), trichloroethylene (TCE), cis- 1,2 dichloroethylene (cis- 1,2 DCE), trans- 1,2 dichloroethylene (trans- 1,2 DCE), and vinyl chloride (VC).

The concentrations of these contaminants in the samples collected during this investigation will be compared to the Model Toxics Control Act (MTCA) Method A or B Cleanup Levels, as appropriate, to determine the need for additional assessment or remedial activities.

3.3 Pre-Field Activities

Prior to subsurface work, Dixon ES contacted the Washington Utility Notification Center to submit a public utility locate request (Ticket #24353263), and contracted with Mountainview Locating Services (Mountainview) of Bonney Lake, Washington to perform a private utility sweep to trace the shop drainage system and clear any potential drilling conflicts.

Dixon ES also prepared a site-specific health and safety plan which identified physical and chemical hazards associated with the project.

3.4 Field Activities

On August 30, 2024, Dixon ES oversaw the advancement of seven (7) borings (B1 through B7) by Holocene Drilling of Puyallup Washington, using direct push drilling techniques. Borings B1 and B2 were placed adjacent to the interior hydraulic hoists and floor drains; boring B3 was placed adjacent to an interior floor drain, hydraulic hoist, and near the area of the hazardous material staging; and boring B4 as placed adjacent to the drainage lateral existing the building. It was also determined that while mobilized, additional data could be collected in the former areas of remediation. Boring B5 was placed to the south of the former pump island; boring B6 was placed to the north of the former pump island and within the former tank nest; and boring B7 was placed to the east of the former pump island and north of the former dry well. Boring locations are depicted on Figure 2.

Soil was extracted from each completed boring using 5-foot long, 2.25-inch MacroCore samplers, with 5-foot interior acetate liners. Soil was continuously screened for the presence of contamination using

a photoionization detector (PID), as well as visual and olfactory observations, and was characterized in accordance with the Unified Soil Classification System (USCS) (Exhibit C: Boring Logs).

A total of 17 soil samples were collected from the 5 borings at depths between 5 and 15 feet bgs, summarized in the table below. Groundwater was not encountered during this investigation.

Boring ID	Sample ID	Sample Depth (FT)	Contaminants of Concern
B1	B1-5	5	DRPH, ORPH, GRPH, BTEX, VOCs
B1	B1-10	10	DRPH, ORPH, GRPH
B2	B2-5	5	DRPH, ORPH, GRPH, BTEX, VOCs
B2	B2-10	10	DRPH, ORPH, GRPH, VOCs
B3	B3-5	5	DRPH, ORPH, GRPH, BTEX, VOCs
B3	B3-10	10	DRPH, ORPH, GRPH
B4	B4-5	5	DRPH, ORPH, GRPH, BTEX, VOCs
B4	B4-10	10	DRPH, ORPH, GRPH, BTEX, VOCs
B4	B4-15	15	DRPH, ORPH, GRPH, BTEX, VOCs
B5	B5-5	5	DRPH, ORPH, GRPH, BTEX, PCE
B5	B5-10	10	DRPH, ORPH, GRPH, BTEX
B6	B6-5	5	DRPH, ORPH, GRPH, BTEX, PCE
B6	B6-10	10	DRPH, ORPH, GRPH, BTEX
B6	B6-15	15	DRPH, ORPH, GRPH, BTEX, PCE
B7	B7-5	5	DRPH, ORPH, GRPH, BTEX, VOCs
B7	B7-10	10	DRPH, ORPH, GRPH
B7	B7-12	12	DRPH, ORPH, GRPH, BTEX, VOCs

Soil samples were collected directly from the acetate liners, extracted from the MacroCore samplers, and transferred into clean laboratory provided glassware, including 4oz jars and 40ml volatile organic analysis (VOA) vials. Samples collected for VOC analysis were done so in accordance with EPA Method 5035 Sampling Techniques.

Samples were placed in a cooler and kept on ice until delivered to a Washington State Department of Ecology (Ecology) Accredited Laboratory, Friedman and Bruya, Inc. (F&BI) of Seattle, Washington under standard chain of custody protocols. Laboratory analytical methods for the site specific COCs are presented below:

- GRPH – Northwest Method NWTPH-HCID
- DRPH – Northwest Method NWTPH- HCID or NTWPH-Dx

- ORPH – Northwest Method NWTPH- HCID or NTWPH-Dx
- BTEX – EPA Method 8021B or 8260D
- VOCs – EPA Method 8260D

4.0 Investigation Results and Analysis

4.1 Soil Analytical Results

- Soils samples B1-5, B3-5, B4-5, and B4-15 contained detectable concentrations of PCE, however the values were below its MTCA Method A Cleanup Level.
- Soil sample B2-5 contained a concentration of PCE that slightly exceeded its MTCA Method A Cleanup Level.
- Soil sample B3-5 contained detectable concentrations of DRPH and ORPH, however the values were below their respective MTCA Method A Cleanup Levels. Additionally, the DRPH concentration was flagged by the laboratory for not representing the fuel standard used for quantitation; this is likely carryover from the oil-range.
- None of the remaining soil samples contained detectable concentrations of Property-specific COCs.

Soil sample analytical results are summarized on Tables 1 and 2. Laboratory analytical reports are included in Exhibit E.

4.2 Data Analysis

In accordance with WAC 173-340-740 (7)(c)(iv)(d), a site can demonstrate statistical compliance with MTCA if all 3 of the following conditions are met:

- The upper 95th percentile confidence limit on the true mean concentration at the site must be less than the soil cleanup level;
- Less than 10% of the samples can exceed the soil cleanup level; and,
- No single sample can be greater than two times the soil cleanup level.

The statistical evaluation shown below was conducted using Ecology's MTCA Stat97 Site Module. Samples with no detectable concentrations of PCE were assigned a value of half the laboratory detection limit. The statistical analysis is included as Exhibit F.

4.2.1 Upper Confidence Limit Rule

The true mean (lognormal mean) of the data set was calculated to be 0.008 mg/kg. The 95th percentile confidence limit on this value equals 0.0426 mg/kg, which is below the MTCA Method A Cleanup Level of 0.05 mg/kg.

4.2.2 10% Rule

A total of 11 soil samples were analyzed for PCE during this subsurface investigation. Only one of the 11 samples contained a PCE concentration that exceeds the MTCA Method A Cleanup Level. One out of 11 equals 9% of the total number of samples, which is less than 10%.

4.2.3 Single Sample Rule

The maximum concentration of PCE detected on the Property was 0.056 mg/kg.

This value is less than two times the MTCA Method A Cleanup Level, which would equal 0.1 mg/kg.

5.0 Summary, Conclusions, and Recommendations

On August 30, 2024, Dixon ES collected soil samples beneath the Property to evaluate the potential for environmental impacts associated with the current operation of an automotive service facility and associated site features.

The results of the investigation, detailed within this report, indicate that the structural integrity of the drainage system may be somewhat compromised, as low-level concentrations of PCE were detected in several soil samples in the vicinity of the floor drains and side-sewer connections. Additionally, a small leak may have occurred associated with the eastern most hoist.

These findings are notable, and should be accounted for when considering current and future business operations; however, as discussed in Section 4, the current contaminant concentrations present beneath the Property do not appear to warrant remedial action under MTCA.

Based on these findings, no further environmental assessment appears warranted.

6.0 Statement of Quality Assurance

Dixon ES has performed this Phase II ESA: SI in accordance with current generally accepted environmental practices and procedures. Dixon ES has employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area.

Conclusions presented within this report were based on the analytical results from a limited data set, as such, there remains a possibility that additional areas or sources of contamination exist on the Property that were not identified during this assessment. No warranty, expressed or implied, is made as to the environmental quality of the Property or risk associated with potential contamination.

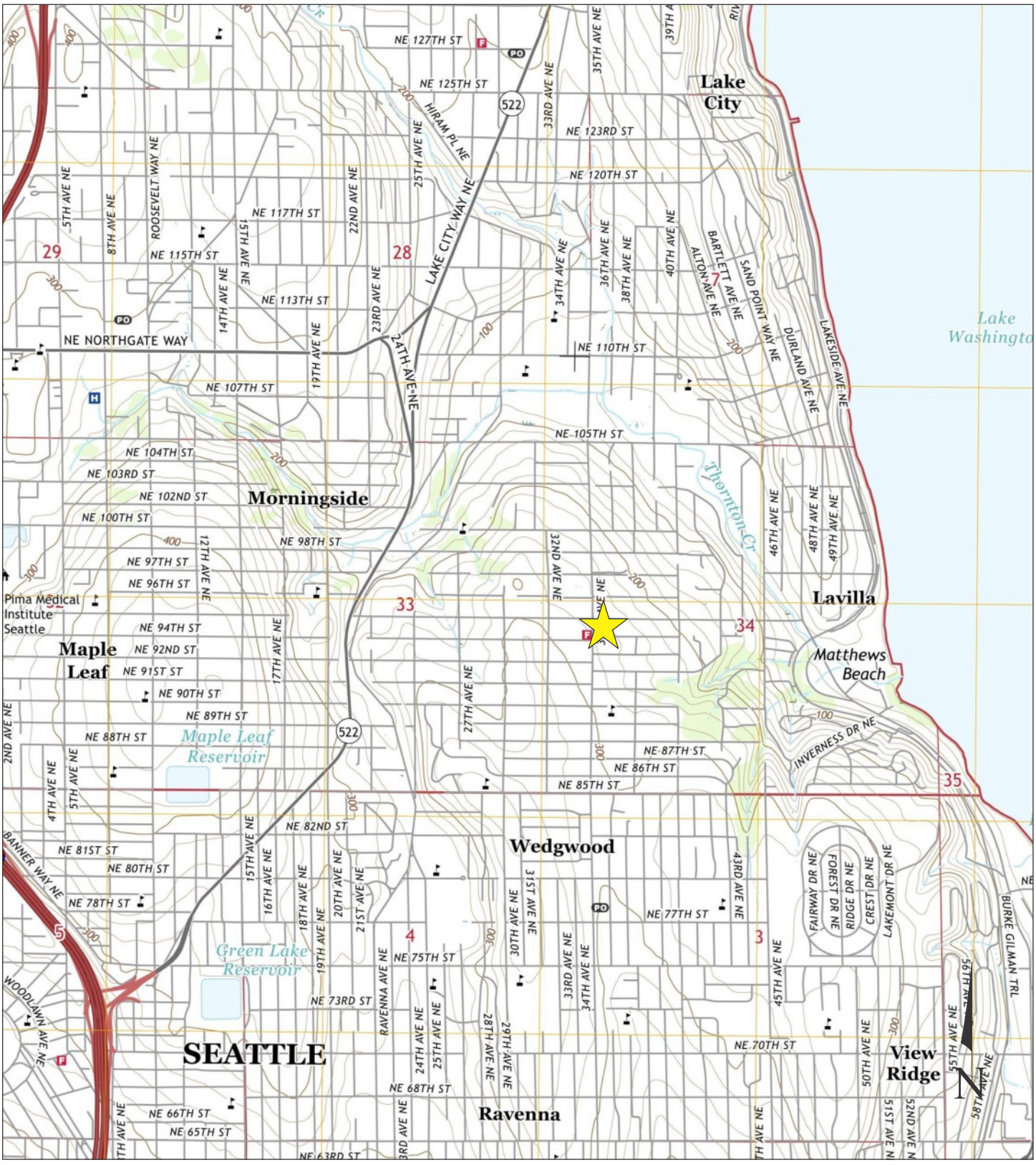
7.0 References

GeoEngineers. 1991. *Report of Remedial Action Underground Storage Tank Removal*. February 13.

United States Geological Survey (USGS). 2020. *Topographic Map of North Seattle, Washington Quadrangle*.

Washington State Department of Ecology. 2012. *No Further Action Determination Unocal 3921*. April 23.

Exhibit A: Figures



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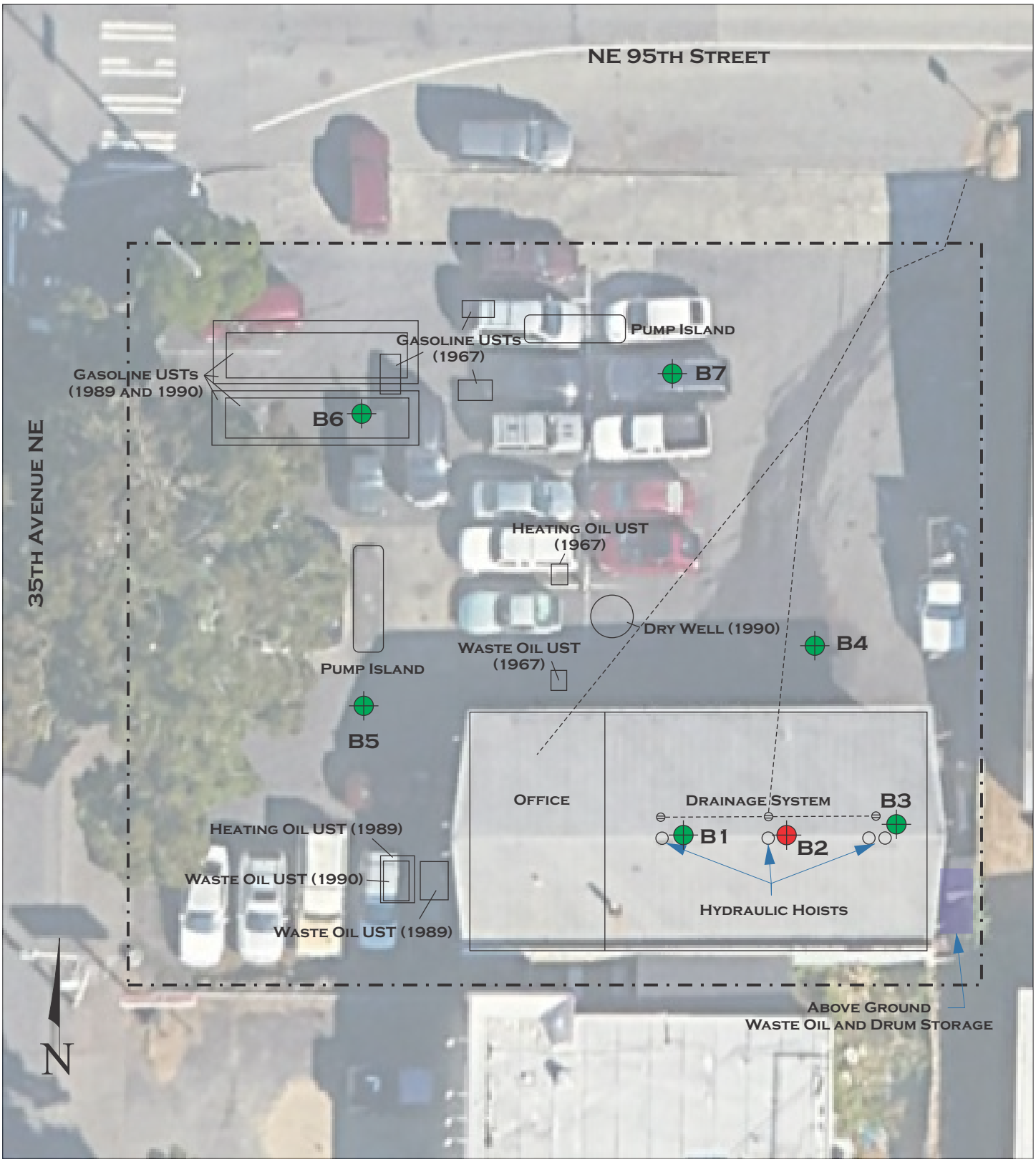
LEGEND

★ SUBJECT PROPERTY

TOPOGRAPHIC MAP

PROJECT ADDRESS:

9418 35TH AVENUE NE
SEATTLE, WA 98115



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- Property Boundary
- Side Sewer

Site Plan

Project Address:

9418 35th Avenue NE
Seattle, WA 98115

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Exhibit B: Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
PETROLEUM HYDROCARBONS AND SELECT VOLATILE ORGANIC COMPOUNDS

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SOIL SAMPLE ID	SAMPLE DEPTH (FT)	DATE SAMPLED	PETROLEUM HYDROCARBONS (MG/KG)			SELECT VOLATILE ORGANIC COMPOUNDS (MG/KG)			
			GASOLINE-RANGE	DIESEL-RANGE	OIL-RANGE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES
B1-5	5	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
B1-10	10	8/30/2024	<20	<50	<250	–	–	–	–
B2-5	5	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
B2-10	10	8/30/2024	<20	<50	<250	–	–	–	–
B3-5	5	8/30/2024	<20	**220x**	**370**	<0.002	<0.002	<0.002	<0.006
B3-10	10	8/30/2024	<20	<50	<250	–	–	–	–
B4-5	5	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
B4-10	10	8/30/2024	<20	<50	<250	–	–	–	–
B4-15	15	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
B5-5	5	8/30/2024	<20	<50	<250	<0.02	<0.02	<0.02	<0.06
B5-10	10	8/30/2024	<20	<50	<250	<0.02	<0.02	<0.02	<0.06
B6-5	5	8/30/2024	<20	<50	<250	<0.02	<0.02	<0.02	<0.06
B6-10	10	8/30/2024	<20	<50	<250	<0.02	<0.02	<0.02	<0.06
B6-15	15	8/30/2024	<20	<50	<250	<0.02	<0.02	<0.02	<0.06
B7-5	5	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
B7-10	10	8/30/2024	<20	<50	<250	–	–	–	–
B7-12	12	8/30/2024	<20	<50	<250	<0.002	<0.002	<0.002	<0.006
ECOLOGY MTCA METHOD A CLEANUP LEVELS UNLESS OTHERWISE SPECIFIED			100/30[1]	2,000	2,000	0.03	7	6	9

NOTES:
MG/KG = MILLIGRAMS PER KILOGRAM
MTCA = MODEL TOXICS CONTROL ACT
– = NOT ANALYZED FOR THIS CONTAMINANT
< = NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
BOLD INDICATES A DETECTED CONCENTRATION THAT IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS
BOLD RED INDICATES THE DETECTED CONCENTRATION EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS
[1] GASOLINE MIXTURES WITHOUT BENZENE AND THE TOTAL OF ETHYLBENZENE, TOLUENE AND XYLENES ARE LESS THAN 1% OF THE GASOLINE MIXTURE HAVE A CLEANUP LEVEL OF 100 MG/KG. ALL OTHER GASOLINE MIXTURES HAVE A CLEANUP LEVEL OF 30 MG/KG.

X THE SAMPLE CHROMATOGRAPHIC PATTERN DOES NOT RESEMBLE THE FUEL STANDARD USE FOR QUANTITATION.

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
CHLORINATED VOLATILE ORGANIC COMPOUNDS

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SOIL SAMPLE ID	SAMPLE DEPTH (FT)	DATE SAMPLED	CHLORINATED VOLATILE ORGANIC COMPOUNDS (MG/KG)				
			PCE	TCE	CIS- 1,2 DCE	TRANS- 1,2 DCE	VC
B1-5	5	8/30/2024	**0.0099**	<0.002	<0.002	<0.002	<0.002
B2-5	5	8/30/2024	**0.056**	<0.002	<0.002	<0.002	<0.002
B2-10	10	8/30/2024	<0.0022	<0.002	<0.002	<0.002	<0.002
B3-5	5	8/30/2024	**0.0088**	<0.002	<0.002	<0.002	<0.002
B4-5	5	8/30/2024	**0.0056**	<0.002	<0.002	<0.002	<0.002
B4-15	15	8/30/2024	**0.0071**	<0.002	<0.002	<0.002	<0.002
B5-5	5	8/30/2024	<0.002	-	-	-	-
B6-5	5	8/30/2024	<0.002	-	-	-	-
B6-15	15	8/30/2024	<0.002	-	-	-	-
B7-5	5	8/30/2024	<0.002	<0.002	<0.002	<0.002	<0.002
B7-12	12	8/30/2024	<0.002	<0.002	<0.002	<0.002	<0.002
ECOLOGY MTCA METHOD A CLEANUP LEVELS UNLESS OTHERWISE SPECIFIED			0.05	0.03	160[1]	1,600[1]	0.67[2]

NOTES:
MG/KG = MILLIGRAMS PER KILOGRAM
MTCA = MODEL TOXICS CONTROL ACT
- = NOT ANALYZED FOR THIS CONTAMINANT
< = NOT DETECTED ABOVE SPECIFIED LABORATORY DETECTION LIMITS
ND = NOT DETECTED ABOVE VARIABLE LABORATORY DETECTION LIMITS
BOLD INDICATES A DETECTED CONCENTRATION THAT IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS
BOLD RED INDICATES THE DETECTED CONCENTRATION MEETS OR EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS
[1] = MTCA METHOD B PUBLISHED VALUE (NON-CANCER)
[2] = MTCA METHOD B PUBLISHED VALUE (CANCER)
PCE = TETRACHLOROETHYLENE
TCE = TRICHLOROETHYLENE
DCE = DICHOROETHYLENE
VC = VINYL CHLORIDE

Exhibit C: Boring Logs

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Project:	Johnson's Auto
Location:	9418 35th Avenue NE Seattle, WA
Client:	

Boring ID: **B1**

Project Number: **0019-23**

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	West Service Bay	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	15'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, fine to medium grained silty SAND.	SM	
3							
4							
5	B1-5	930	0.0				
6							
7					Light brown, medium grained poorly graded SAND. Trace silt.	SP	
8							
9							
10	B1-10	935	0.0				
11					Same as above.	SP	
12							
13							
14							
15							
16					Boring terminated at 15 feet bgs.		
17							
18							
19							
20							

Notes:

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ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B2**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	Central Service Bay	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	10'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, fine to medium grained silty SAND.	SM	
3							
4							
5	B2-5	1000	0.0				
6							
7					Light brown, medium grained gravelly SAND.	SW	
8							
9							
10	B2-10	1010	0.0				
11					Boring terminated at 10 feet bgs.		
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B3**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	Eastern Service Bay	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	10'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, medium grained gravelly SAND with silt.	SM	
3							
4							
5	B3-5	1030	4.4				
6							
7					Light brown, medium grained poorly graded SAND. Trace silt.	SP	
8							
9							
10	B3-10	1035	0.0				
11					Boring terminated at 10 feet bgs.		
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B4**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	North of Service Bays	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	15'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, fine to medium grained silty SAND.	SM	
3							
4							
5	B4-5	1100	0.0				
6							
7					Gray, medium grained poorly graded SAND. Trace silt.	SP	
8							
9							
10	B4-10	1110	0.0				
11					Same as above.	SP	
12							
13							
14							
15	B4-15	1115	0.0				
16					Boring terminated at 15 feet bgs.		
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B5**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	South of Pump Island	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	10'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, fine grained poorly graded SAND. Trace silt.	SP	
3							
4							
5	B5-5	1200	0.0				
6							
7					Light brown, fine grained poorly graded SAND.	SP	
8							
9							
10	B5-10	1210	0.0				
11					Boring terminated at 10 feet bgs.		
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B6**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	North of Pump Island	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	15'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, medium grained poorly graded SAND. Trace gravel.	SP	
3							
4							
5	B6-5	1240	0.0				
6							
7					Light brown, fine grained poorly graded SAND. Trace silt.	SP	
8							
9							
10	B6-10	1245	0.0				
11					Same as above.	SP	
12							
13							
14					Pea gravel.	GP	
15	B6-15	1250	0.0				
16					Boring terminated at 15 feet bgs.		
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Johnson's Auto	**Boring ID:**	**B7**
Location:	9418 35th Avenue NE Seattle, WA	**Project Number:**	**0019-23**
Client:			

Date Start/Finish:	8/30/2024	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	A. Blake	**Borehole ID/OD:**	2-inch
Contractor:	Holocene	**Sampler:**	5' Macro Core
Operator:	Don Harnden	**Hammer Wt./Fall:**	NA
Boring Location:	North Property	**Ground Elevation:**	~270ft AMSL
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	15'

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1							
2					Brown, fine to medium grained silty SAND with gravel.	SM	
3							
4							
5	B7-5	1310	0.0				
6							
7					Light brown, medium grained poorly graded SAND. Trace silt.	SP	
8							
9							
10	B7-10	1312	0.0		Same as above.	SP	
11					Pea gravel.	GP	
12	B7-12	1315	0.0				
13							
14							
15							
16					Boring terminated at 15 feet bgs.		
17							
18							
19							
20							

Notes:

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction

Type of Well: Geotech Soil Boring
Number of Wells: 1
Type of Work: New
Method: Auger
Drilling Start Date: 2/19/2019
Drilling Completion Date: 2/19/2019
Received by Ecology: 3/11/2019 5:18 PM

Dimensions:
Borehole Diameter: 6 in
Depth of completed well: 35 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Dia-meter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

Material	From Depth	To Depth
N/A		

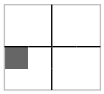
Individual Well Details

Well	Driller's Identifier	Water Level
1		Dry Hole

Additional Well Construction Information
None

Construction Notice of Intent Number: SE69055
Decommissioning Notice of Intent Number: AE53428
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: TURNER
Property Owner Address: 3544 NE 91ST ST, SEATTLE, WA 98115

Well Location:
Well Street Address:
City, State, Zip: WA
County: King
Township: 26N Range: 4E Section: 34 in the NW 1/4 of the SW 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.:

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	35 ft 0 in	SAND

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: JEREMY COLEMAN	Drilling Company: GEOLOGIC DRILL PARTNERS INC
Driller or trainee License Number: 3242	Address: 137 118th AVE SE
If trainee, Driller's License Number:	City, State, Zip: BELLEVUE, WA, 98005

Exhibit D: Supporting Documents

REPORT OF REMEDIAL ACTION
UNDERGROUND STORAGE TANK REMOVAL
UNOCAL SERVICE STATION 3921
SEATTLE, WASHINGTON
FOR
UNOCAL

GeoEngineers

Consulting Geotechnical
Engineers and Geologists

February 13, 1991

Unocal
P.O. Box 76
Seattle, Washington 98111

Attention: Mr. Leigh Carlson

We are submitting five copies of our report of remedial actions for Unocal Service Station 3921 in Seattle, Washington. Our services for this project were authorized verbally by Mr. Leigh Carlson of Unocal on August 20, 1990. Contractual terms for our service are listed in blanket contract number B1982C.

We appreciate the opportunity to be of continued service to Unocal. Please call if you have questions regarding this report or our services.

Yours very truly,

GeoEngineers, Inc.

James A. Miller, P.E.
Principal

JJW:JAM:wd

cc: Mr. Joseph Hickey
Washington State Dept. of Ecology
Northwest Regional Office
4350 - 150th Ave. N.E.
Redmond, WA 98052-5301

File No. 0161-199-B04

GeoEngineers, Inc.
2405 140th Ave. NE. Suite 105
Bellevue WA 98005
Telephone (206) 746-5200
Fax. (206) 746-5068

GeoEngineers

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GeoEngineers

REPORT OF REMEDIAL ACTION
UNDERGROUND STORAGE TANK REMOVAL
UNOCAL SERVICE STATION 3921
SEATTLE, WASHINGTON
FOR
UNOCAL

INTRODUCTION

This report summarizes the results of our observations during the removal of three USTs (underground storage tanks), the associated product lines and one drywell at Unocal Service Station 3921 in Seattle, Washington. The site is located southeast of the intersection between Northeast 95th Street and 35th Avenue Northeast. The site location is shown relative to surrounding physical features in Figure 1. The general layout of the site is shown in Figure 2.

Two 12,000-gallon, fiberglass-coated steel gasoline storage tanks and one 550-gallon, fiberglass-coated steel waste oil tank were removed between October 10 and October 11, 1990 from the locations shown in Figure 2. An abandoned drywell was excavated and removed from the site on November 5, 1990. The associated underground product and vent lines were removed between October 10 and October 22, 1990. The waste oil tank, the two gasoline tanks, the drywell and the associated product and vent lines were not replaced.

A representative from GeoEngineers observed the removal of two 10,000-gallon steel gasoline storage tanks, one 550-gallon steel heating oil tank, and one 550-gallon steel waste oil tank in June 1989. The USTs were replaced with the steel-lined fiberglass tanks which were subsequently removed in October 1990. The heating oil tank was not replaced during the 1989 tank replacement activities. No residual soil contamination of regulatory significance was detected at the limits of the excavations completed for the removal of the tanks in 1989. The results of the June 1989 tank removal activities are presented in our "Report of Remedial Action, Underground Storage Tank Removal, Unocal Service Station 3921, Seattle Washington, for Unocal" dated October 23, 1989.

Information supplied by Unocal indicates that a service station occupied the site prior to the construction of Unocal Service Station 3921 in 1967. Three underground steel gasoline storage tanks (3,000, 4,000 and 5,000 gallons), one 550-gallon steel heating oil tank, and one 280-gallon

waste oil tank were removed from the locations indicated on Figure 2 prior to the construction of the Unocal service station in 1967. The approximate locations of the USTs removed in 1967, 1989 and 1990 are shown in Figure 2.

SCOPE

The purpose of our most recent services was to observe and evaluate subsurface soil conditions in the UST, product line and drywell excavations and to develop a remedial action plan, if necessary. GeoEngineers' scope of services completed for this project is as follows:

1. Observe and document the removal of three USTs, the associated product and vent lines and one drywell at the site.
2. Obtain soil samples from the limits of the excavations for chemical analyses of petroleum-related contaminants. Field screening was conducted on each soil sample for evidence of contamination using visual, water sheen and headspace vapor screening methods. Field screening methods are described in Appendix A.
3. Submit selected soil samples from the limits of the excavations for one or more of the following chemical analyses: BETX (benzene, ethylbenzene, toluene, and xylenes) by EPA Method 8020, fuel hydrocarbons by modified EPA Method 8015, TPH (total petroleum hydrocarbons) by EPA Method 418.1, metals by EP Toxicity methods, PCBs (polychlorinated biphenyls) by EPA Method 8080, and chlorinated hydrocarbons by EPA Method 8010.
4. Evaluate the field and laboratory data with regard to current regulatory concerns.

REMEDIAL ACTIVITIES

GENERAL

JHC (Joe Hall Construction) removed the three USTs, the associated product and vent lines, the north service island and canopy, one drywell, and contaminated soil encountered in the excavations between October 10 and November 20, 1990. A representative of GeoEngineers was present to observe the removal of the USTs, product lines, drywell, the soil excavation activities and to obtain soil samples from the limits of the excavations. Field screening techniques were used to delineate the limits of the excavations. Field screening and soil sampling techniques are described in Appendix A. Native soil consisting of fine to medium sand with occasional

gravel and a trace of silt was observed in the walls and base of the gasoline tank, waste oil tank, product line, and drywell excavations. UST and product line backfill consisted of sand with silt and occasional gravel. Ground water was not encountered in the excavations. Based on the geology of the area, we anticipate that the depth to ground water at the site is greater than 50 feet.

A total of 54 discrete soil samples were obtained from the excavations for chemical analysis. Soil removed from the excavations was placed in temporary on-site stockpiles. The stockpiles were segregated according to the apparent source and degree of contamination. Eight composite soil samples were collected from the soil stockpiles for chemical analysis.

The locations of the former underground storage tanks, final limits of the excavations and soil sample locations are shown in Figures 2 and 3. Tables 1 through 5 summarize the soil analytical and field screening data. Laboratory reports are included in Appendix B.

CLEANUP GUIDELINES

Ecology (Washington State Department of Ecology) is adopting new cleanup standards for underground storage tank sites under the MTCA (Model Toxics Control Act). Ecology's MTCA soil CCLs (compliance cleanup levels) are listed below.

Compound	MTCA Compliance Cleanup Levels for Soil (mg/kg)
TPH (gasoline)	100
TPH (diesel)	200
TPH (other)	200
Benzene	0.5
Ethylbenzene	20
Toluene	40
Xylenes	20

Note: mg/kg = milligrams per kilogram

GASOLINE TANK EXCAVATION

No exterior damage or corrosion was apparent on the two 12,000-gallon, fiberglass-coated steel underground gasoline storage tanks during the removal procedure. The gasoline tank excavation was completed 12.0 to 17.0 feet below existing grade.

Field screening methods did not indicate the presence of petroleum-related contamination in the walls and base of the excavation or in the excavated tank backfill material. Ten discrete soil samples (G-1 through G-10) were obtained from the walls and base of the excavation (Figure 3). The soil samples were submitted to ATI (Analytical Technologies, Inc.) for analysis of BETX and fuel hydrocarbons. Laboratory analyses indicated that the concentration of fuel hydrocarbons and BETX in the soil samples obtained from the limits of the gasoline storage tank excavation were less than laboratory detection limits.

Approximately 400 cubic yards of tank backfill were removed and stockpiled on-site as a part of the gasoline tank removal activities. Three composite soil samples (GSP-1, GSP-2 and GSP-3) were obtained from the stockpiled tank backfill material. One composite soil sample (GF) was obtained from tank backfill that remained in the tank excavation after tank removal. These samples were analyzed for the presence of fuel hydrocarbons and BETX. Laboratory analyses indicated that the concentrations of fuel hydrocarbons and BETX in the soil samples obtained from the tank backfill either were less than laboratory detection limits or less than current CCLs. The stockpiled soil was used as backfill in the gasoline tank excavation. Laboratory results are summarized in Table 1.

WASTE OIL TANK EXCAVATION

No exterior damage or corrosion was apparent in the underground waste oil storage tank during excavation. The excavation was completed to a depth of approximately 8.0 feet below existing grade. Approximately 50 cubic yards of tank backfill were excavated as a part of the tank removal activities.

Field screening did not indicate the presence of petroleum-related soil contamination in the waste oil tank excavation and backfill material. Five soil samples (WO-1 through WO-5), collected from the walls and base of the waste oil tank excavation, were submitted to ATI for analysis of TPH. Sample WO-3 also was analyzed for the presence of chlorinated hydrocarbons.

Laboratory analyses indicated that the concentrations of TPH in soil samples obtained from limits of the waste oil tank excavation ranged from 10 mg/kg (WO-4) to 25 mg/kg (WO-1). These concentrations are less than current CCLs for TPH. Chlorinated hydrocarbons were not detected in sample WO-3.

One composite soil sample (WSP) was collected from the stockpiled soil removed from the waste oil tank excavation and analyzed for the presence of TPH. The concentration of TPH detected in composite soil sample WSP was less than current CCLs. The stockpiled soil was used as backfill in the waste oil tank excavation. Analytical and field screening results for soil samples from the waste oil tank excavation are summarized in Table 2.

PRODUCT AND VENT LINE EXCAVATIONS

Field screening did not indicate the presence of petroleum-related contamination in soils exposed in the product and vent line excavation. Eight soil samples (PL-1, PL-2, PL-4 through PL-6, and VL-1, VL-2 and VL-3) were collected from the product and vent line excavations at the locations shown in Figure 3. These samples were submitted for analysis of fuel hydrocarbons and BETX. Soil samples obtained from product and vent line excavations in the vicinity of the north service island are discussed in the following section entitled northern service island excavation.

Laboratory analyses indicated that the concentrations of fuel hydrocarbons and BETX in the soil samples obtained from the product line excavations either were less than current CCLs or less than laboratory detection limits. Laboratory and field screening results are summarized in Table 3.

NORTHERN SERVICE ISLAND EXCAVATION

Field screening of soil samples obtained from near the northern fuel service island indicated the possible presence of petroleum-contaminated soil. The soil contamination appeared to encompass a small area in the vicinity of the north service island and the canopy footing. Chemical analysis of soil sample SI-7, obtained to characterize the contamination, indicated that the contaminant was gasoline (4,000 mg/kg). Approximately 15 cubic yards of gasoline-contaminated soil were excavated from this area. The excavation of the contaminated soil was suspended temporarily pending removal of the service island, canopy and canopy footing. Following the removal of the service island and canopy, an additional 10 cubic yards of gasoline-contaminated soil were removed from around the former footing

location. This soil was spread on-site for aeration. However, adverse weather conditions required that the soil stockpile be covered with plastic to prevent surface water runoff.

While excavating in the vicinity of the northern service island, additional petroleum-contaminated soil was discovered in what appeared to be the former locations of the 3,000-gallon, 4,000-gallon and 5,000-gallon underground gasoline storage tanks which were removed in 1967. Piping, sheet metal and old cans were found in the tank backfill. Approximately 200 cubic yards of contaminated tank backfill were removed from the former tank locations.

Thirteen soil samples (SI-1 through SI-3, PL-3, SI-8, S1-10 through S1-12 and S1-13 through S1-17) were obtained from the final limits of the excavation, as shown in Figure 3. These samples were submitted for analysis of fuel hydrocarbons and/or BETX and TPH. Chemical analysis of soil samples obtained from the limits of the excavation indicated that the concentrations of fuel hydrocarbons and/or BETX and TPH either were less than current CCLs or less than laboratory detection limits. One composite soil sample (SI-Comp), which was obtained from the stockpiled soil excavated from the former tank locations, was submitted for analysis of TPH and fuel hydrocarbons. The concentration of TPH in composite soil sample SI COMP was 280 mg/kg. Laboratory and field screening results are summarized in Table 4.

DRYWELL EXCAVATION

On November 5, 1990, an excavation was begun in the vicinity of the former 280-gallon waste oil tank removed in 1967. An abandoned concrete drywell was discovered immediately north of the former tank location at a depth of approximately 4 feet below existing grade. Field screening indicated the presence of petroleum-contaminated soil within and adjacent to the drywell. Composite soil sample DW-1, obtained from a depth between 6 and 8 feet, was tested for TPH, chlorinated hydrocarbons, BETX, PCBs and EP Toxicity metals. Laboratory analysis of sample DW-1 detected a TPH concentration of 5,400 mg/kg. Concentrations of chlorinated hydrocarbons, BETX, PCBs and EP Toxicity metals in soil sample DW-1 either were less than detection limits or less than Ecology compliance cleanup levels (Appendix B).

Additional soil was removed and nine soil samples (DW-2 through DW-8, DW-10 and DW-11) were obtained from the initial limits of the drywell excavation (Figure 3). The soil samples were submitted for chemical analysis of TPH. Laboratory analyses indicated that the concentration of TPH in sample DW-6 (640 mg/kg) exceeded Ecology's compliance cleanup levels. Additional soil was removed from the area near DW-6 and soil samples DW-13 and DW-14 were obtained. Concentrations of TPH less than Ecology cleanup levels were detected in soil samples DW-13 (19 mg/kg) and DW-14 (15 mg/kg). Soil sample DW-4 also was analyzed for chlorinated hydrocarbons. Concentrations of chlorinated hydrocarbons were less than analytical detection limits in DW-4.

Approximately 400 cubic yards of contaminated soil were removed from the drywell excavation and stockpiled on-site. TPH concentrations in composite soil samples DW-12 and DW-9, obtained from the stockpiled soil, were 84 mg/kg and 540 mg/kg, respectively. The average TPH concentration for these soil samples is 312 mg/kg. The concentrations of BETX, chlorinated hydrocarbons and EP Toxicity metals either were less than Ecology's compliance cleanup levels or less than laboratory detection limits. Laboratory and field screening results are summarized in Table 5.

SOIL DISPOSAL

Joe Hall excavated approximately 225 cubic yards of contaminated soil from the service island excavation and 400 cubic yards from the drywell excavation. The soil is currently stockpiled pending issuance of permission for disposal at Kitsap County Landfill.

CONCLUSIONS

Based on the results of our field observations and chemical analytical testing, it is our opinion that actions to remove subsurface petroleum-related contamination at the site of former Unocal Service Station 3921 have been completed successfully. No residual soil contamination of regulatory significance was detected at the limits of the excavations at this site.

LIMITATIONS

We have prepared this report for use by Unocal. This report may be made available to future property owners and to regulatory agencies. This report is not intended for use by others and the information contained herein is not applicable to other sites.

Our interpretation of soil conditions during remediation is based on field observations and chemical analytical data. It is always possible that areas with contamination may exist in portions of the site that were not excavated or analyzed.

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

Respectfully submitted,

GeoEngineers, Inc.

James J. Whitbread
Geological Engineer

James A. Miller, P.E.
Principal

JJW:JAM:cs

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
GASOLINE STORAGE TANK EXCAVATION

Soil Sample Number	Date Sampled	Depth of Sample (feet)	BETX(a) (mg/kg) (EPA Method 8020)				Field Hydrocarbons (mg/kg) Modified EPA Method 8015		Field Screening Results (b)		General Sample Location
			B	E	T	X	Gasoline	Diesel	Headspace Vapors (ppm)	Sheen Test	
G-1	10/11/90	13.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	East wall
G-2	10/11/90	13.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	South wall
G-3	10/11/90	12.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	North wall
G-4	10/11/90	12.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	Base of excavation below fill port, north tank
G-5	10/11/90	12.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	Base of excavation below fill port, south tank
G-6	10/15/90	17.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	West wall
G-7	10/15/90	17.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	South wall
G-8	10/15/90	17.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	Base of excavation below fill port, south tank
G-9	10/15/90	17.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	Base of excavation below fill port, north tank
G-10	10/15/90	17.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	North wall
GF	10/12/90	Composite	<0.025	<0.025	0.055	<0.025	<5	<5	—	SS	Composite of tank backfill remaining in excavation after tank removal
GSP-1	10/10/90	Composite	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	Soil stockpile, excavated tank backfill material
GSP-2	10/11/90	Composite	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	Soil stockpile, excavated tank backfill material
GSP-3	10/11/90	Composite	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	Soil stockpile, excavated tank backfill material

Notes:

(a) B = benzene, E = ethylbenzene, T = toluene, X = total xylenes. Detection limits are given in Appendix B.

(b) Refer to Appendix A for field screening methods.

"--" = not tested

NS = no sheen

SS = slight sheen

mg/kg = milligrams per kilogram

ppm = parts per million

TABLE 2
SUMMARY OF SOIL ANALYTICAL DATA
WASTE OIL TANK EXCAVATION

Soil Sample Number	Date Sampled	Depth of Sample (feet)	TPH(a) (mg/kg) (EPA Method 418.1)	Field Screening Results (b)		General Sample Location
				Headspace Vapors (ppm)	Sheen Test	
WO-1	10/11/90	8.0	25	<100	SS	North wall
WO-2	10/11/90	8.0	18	<100	NS	West wall
WO-3(c)	10/11/90	8.0	14	<100	NS	Base of excavation below tank fill port
WO-4	10/11/90	8.0	10	<100	NS	South wall
WO-5	10/11/90	8.0	15	<100	SS	East wall
WSP	10/11/90	Composite	25	<100	SS	Soil stockpile, excavated tank backfill material

Notes:

(a) TPH = total petroleum hydrocarbons. Detection limits are given in Appendix B.

(b) Refer to Appendix A for field screening methods.

(c) Soil sample WO3 was also analyzed for the presence of chlorinated hydrocarbons by EPA Method 8010. Chlorinated hydrocarbons were not detected in sample WO3. Detection limits are Given in Appendix B.

NS = no sheen

SS = slight sheen

mg/kg = milligrams per kilogram

ppm = parts per million

TABLE 3
SUMMARY OF SOIL ANALYTICAL DATA
PRODUCT LINE EXCAVATIONS

Soil Sample Number	Date Sampled	Depth of Sample (feet)	BETX(a) (mg/kg) (EPA Method 8020)				Field Hydrocarbons (mg/kg) Modified EPA Method 8015		Field Screening Results (b)		General Sample Location
			B	E	T	X	Gasoline	Diesel	Headspace Vapors (ppm)	Sheen Test	
PL-1	10/10/90	2.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	Adjacent to west service island
PL-2	10/11/90	2.0	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	SS	Northeast of west service island
VL-1	10/11/90	3.5	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	West of service station building
VL-2	10/12/90	2.0	<0.025	<0.025	0.072	<0.025	<5	<5	<100	SS	East of west service island
VL-3	10/15/90	1.0	<0.025	<0.025	<0.025	0.050	10	13	<100	NS	East of west service island
PL-4	10/22/90	1.5	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	West of west service island
PL-5	10/22/90	1.5	<0.025	<0.025	<0.025	<0.025	<5	<5	<100	NS	West of west service island
PL-6	10/22/90	1.3	<0.025	<0.025	0.038	0.054	<5	<5	<100	NS	West of west service island

Notes:

(a) B = benzene, E = ethylbenzene, T = toluene, X = total xylenes. Detection limits are given in Appendix B.

(b) Refer to Appendix A for field screening methods.

NS = no sheen

SS = slight sheen

mg/kg = milligrams per kilogram

ppm = parts per million

TABLE 4
SUMMARY OF SOIL ANALYTICAL DATA
SERVICE ISLAND EXCAVATION

Soil Sample Number	Date Sampled	Depth of Sample (feet)	BETX(a) (mg/kg) (EPA Method 8020)				Field Hydrocarbons (mg/kg) Modified EPA Method 8015		TPH(b) (mg/kg) EPA Method 418.1	Field Screening Results (b)		General Sample Location
			B	E	T	X	Gasoline	Diesel		Headspace Vapors (ppm)	Sheen Test	
SI-1	10/12/90	1.5	0.047	0.14	0.040	0.85	<5	91	---	<100	SS	South of north service island
SI-2	10/12/90	1.5	<0.025	<0.025	<0.025	0.072	<5	<5	---	<100	NS	South of north service island
SI-3	10/12/90	1.5	<0.025	<0.025	<0.025	<0.025	<5	<5	---	<100	NS	Southeast of north service island
SI-4	10/12/90	1.0	0.041	0.13	0.050	0.87	28	<5	---	<100	NS	North of north service island
SI-5	10/12/90	1.0	0.095	4.6	2.6	42	1100	<25	---	---	MS	Beneath north service island
SI-6	10/12/90	2.0	0.042	<0.025	0.21	5.9	660	<5	---	---	SS	South of north service island
SI-7	10/12/90	3.0	0.27	28	9.4	200	4000	<50	---	---	HS	Beneath north service island
PL-3	10/15/90	1.0	<0.025	0.085	0.028	0.055	<5	<5	---	<100	SS	South of north service island
SI-8	10/15/90	1.5	0.049	0.27	0.50	4.8	<5	<5	---	<100	SS	Adjacent to north service island
S1-9	10/19/90	3.5	0.070	1.3	0.039	9.0	<5	410	---	140	NS	Beneath north service island
S1-10	10/19/90	4.0	<0.025	<0.025	<0.025	0.068	<5	<5	---	120	NS	Beneath north service island
S1-11	10/19/90	4.0	<0.025	<0.025	<0.025	0.059	<5	<5	---	<100	NS	South of north service island
GSP-4	10/19/90	Composite	0.041	1.5	0.50	17	<5	770	---	---	---	Soil stockpile, soil excavated from vicinity of service island
S1-12	10/22/90	1.0	<0.025	0.18	0.038	1.1	74	<5	---	<100	SS	North of north service island
S1-13	11/05/90	6.5	0.045	0.042	0.050	0.091	<5	<5	---	---	SS	Beneath service island
S1-14	11/06/90	5.5	---	---	---	---	<5	<5	58	---	NS	North wall service island excavation
S1-15	11/06/90	6.0	---	---	---	---	<5	<5	18	---	SS	West wall service island excavation
S1-16	11/06/90	6.0	---	---	---	---	<5	<5	15	---	NS	South wall service island excavation
S1-17	11/06/90	8.0	---	---	---	---	<5	<5	7	---	SS	Base of service island excavation
SI-Comp	11/06/90	Composite	---	---	---	---	56	130	280	---	MS	Soil stockpile, composite of excavated tank backfill

Notes:

(a) B = benzene, E = ethylbenzene, T = toluene, X = total xylenes. Detection limits are given in Appendix B.

(b) TPH = total petroleum hydrocarbons. Detection limits are given in Appendix B.

(c) Refer to Appendix A for field screening methods.

"---" = not tested

NS = no sheen, SS = slight sheen, MS = moderate sheen, HS = heavy sheen

mg/kg = milligrams per kilogram

ppm = parts per million

TABLE 5
SUMMARY OF SOIL ANALYTICAL DATA
DRYWELL EXCAVATION

Soil Sample Number	Date Sampled	Depth of Sample (feet)	TPH(a) (mg/kg) (EPA Method 418.1)	Field Screening Results (b)		General Sample Location
				Headspace Vapors (ppm)	Sheen Test	
DW1 (c)	11/06/90	6 - 8	5400	--	HS	Composite soil sample obtained along the excavation wall for charaterization of contamination
DW-2	11/07/90	15	18	--	NS	South wall
DW-3	11/07/90	8	11	--	SS	South wall
DW-4(d)	11/07/90	17	10	--	SS	Base of excavation
DWP-5	11/07/90	15	15	--	NS	East wall
DW-6	11/07/90	8	640	--	SS	East wall
DW-7	11/07/90	15	6	--	SS	West wall
DW-8	11/07/90	8	5	--	SS	West wall
DW-9(e)	11/08/90	Composite	540	--	MS	Soil stockpile, excavated from dry well excavation
DW-10	11/08/90	15	18	--	SS	North wall
DW-11	11/08/90	8	21	--	SS	North wall
DW-12(f)	11/08/90	Composite	84	--	MS	Soil stockpile, excavated from dry well excavation
DW-13	11/20/90	8	19	<100	NS	East wall
DW-14	11/20/90	10	15	<100	NS	East wall

Notes:

(a) TPH = total petroleum hydrocarbons. Detection limits are given in Appendix B.

(b) Refer to Appendix A for field screening methods.

(c) Sample DW-1 was analyzed for chlorinated hydrocarbons by EPA Method 8010, BETX by EPA Method 8020, PCBs by EPA Method 8080 and metals by EP Toxicity methods. Laboratory analyses indicate that the concentrations of contaminants were either detected at concentrations below MTCA compliance cleanup levels or below laboratory detection limits. Detection limits are given in Appendix B.

(d) Sample DW-4 was analyzed for chlorinated hydrocarbons by EPA Method 8010. Laboratory analyses indicated the concentrations of chlorinated hydrocarbons was below laboratory detection limits. Detection limits are given in Appendix B.

(e) Sample DW-9 was analyzed for chlorinated hydrocarbons by EPA Method 8010, BETX by EPA Method 8020 and metals by EP Toxicity methods. Laboratory analyses indicate that the concentrations of contaminants were below laboratory detection limits. Detection limits are given in Appendix B.

(f) Sample DW-12 was analyzed for chlorinated hydrocarbons by EPA Method 8010 and BETX by EPA Method 8020. Laboratory analyses indicate the concentrations of contaminants were below laboratory detection limits. Detection limits are given in Appendix B.

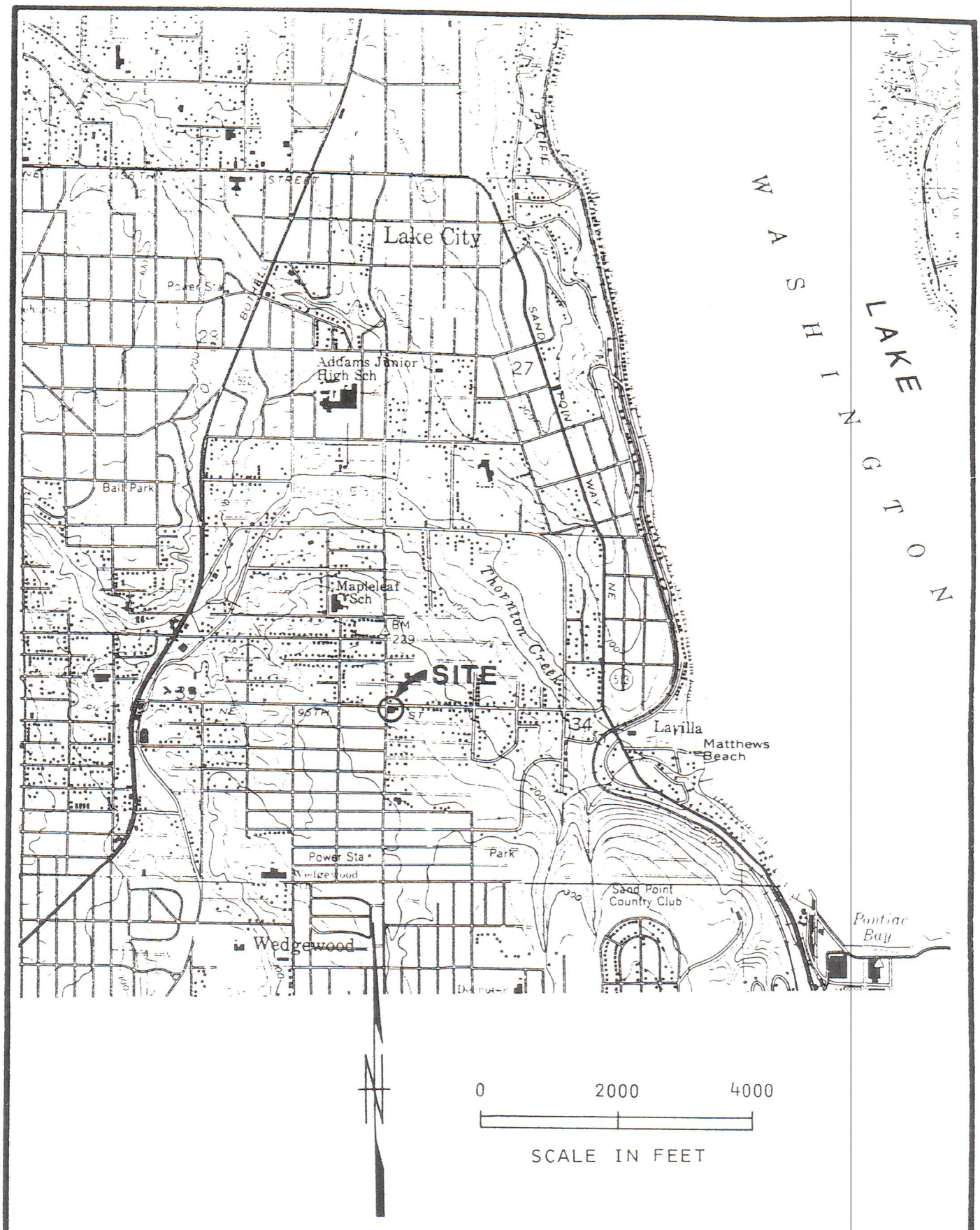
"—" = not tested

NS = no sheen, SS = slight sheen, MS = moderate sheen, HS = heavy sheen

Shading indicates additional soil was removed from this area

mg/kg = milligrams per kilogram

ppm = parts per million



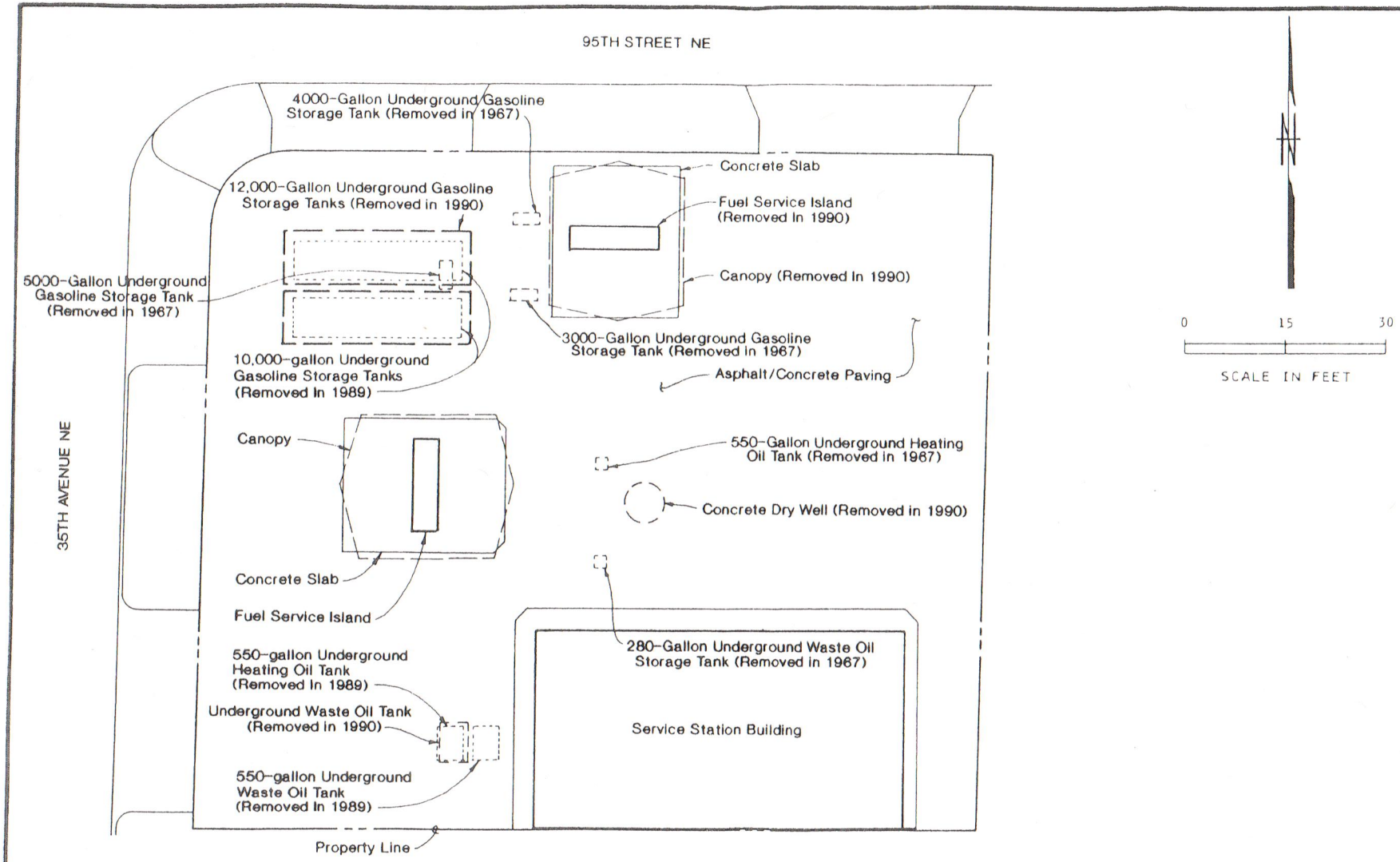
REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE MAP "SEATTLE NORTH, WASH."

Geo Engineers

VICINITY MAP

FIGURE 1

0161-199-B04 JF:KET 9.8.89



0161 199 804 JF KLT 9 8 89 & Rev 1/28/91

REFERENCE: DRAWING ENTITLED "EXISTING GENERAL ARRANGEMENT, SERVICE STATION 3921, N.E. 95TH ST. & 35TH AVE. N.E., SEATTLE, WASHINGTON", DATED 8/29/67, BY UNOCAL.

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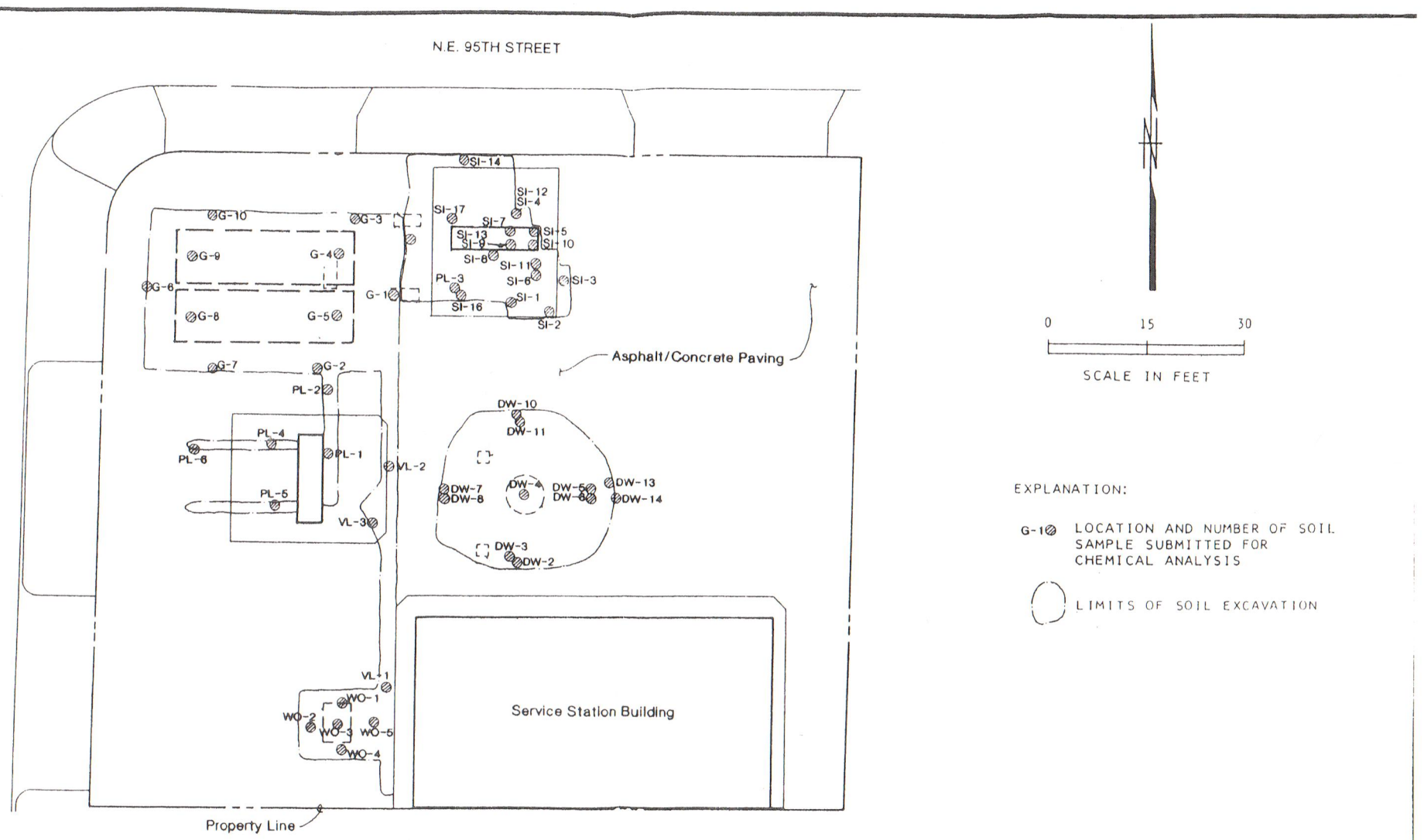
SITE PLAN

FIGURE 2



REFERENCE: DRAWING ENTITLED "EXISTING GENERAL ARRANGEMENT, SERVICE STATION 3921, N.E. 95TH ST. & 35TH AVE. N.E., SEATTLE, WASHINGTON", DATED 8/29/67, BY UNOCAL.

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FINAL LIMITS OF EXCAVATION AND SOIL SAMPLE LOCATIONS

FIGURE 3

0161 199 B04 JF KKT 9 8 89

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

April 23, 2012

PROPERTY OWNER
Unocal 3921
9418 - 35th NE
Seattle, WA 98115

Re: No Further Action (NFA) Determination associated with Leaking Underground Storage Tank (LUST) Site:

- Site Name: Unocal 3921
- Property Address: 9418 - 35th NE, Seattle, WA 98115
- Facility/Site No.: 46936387
- LUST ID: 1545

Dear Property Owner:

Based on the historical information in our files and the last documents submitted to us on 10/24/1989, the Washington State Department of Ecology (Ecology) has determined that the Unocal 3921 site has met the substantive requirements for cleanup under the Model Toxics Control Act (MTCA) regulation Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA").

The MTCA regulation sets strict cleanup standards for sites in Washington State to ensure that the quality of the cleanup is appropriate and is protective of human health and the environment. Depending on the site circumstances and location, one of the three cleanup criteria established under MTCA is used to assess the quality of the cleanup remedy. These are:

- **Method A Cleanup levels**: Used in simple sites with few contaminants of concern (COCs). The Method A cleanup levels consist of a list of the most common hazardous substances for soil and groundwater. The Method A Cleanup levels are very strict, and if met, they allow the property to be used for unrestricted land use.
- **Method B Cleanup levels**: These cleanup levels are established using applicable state and federal laws and the risk assessment equations and other requirements defined in MTCA. Method B is used in more complex sites where the COCs are not included within the set criteria listed on the Method A tables.

- **Method C Cleanup levels:** Method C uses the same risk assessment equations and other requirements defined in MTCA but also require a full site-specific risk assessment and an Terrestrial Ecological Evaluation (TEE). Method C is used in industrial sites, when Methods A and C are technically unattainable or lower that background concentrations, and when a significant threat to human health or the environment has been identified.

After a site meets the criteria for soil and groundwater (if applicable), the cleanup is considered to be complete and an NFA letter can be issued.

According to our records, you have conducted cleanup independently and your site meets the Method A Cleanup levels.

- LUST ID No.: 1545,
- Release Notification Date: 6/1/1995,
- Contaminants of Concern: Gas, BTEX, WO, heating oil,
- Soil is affected: Yes,
- Groundwater is affected: No.

Based on this information, **Ecology has determined that no further remedial action is necessary at the Property to clean up contamination associated with the LUST. This determination is made only for impacts associated to releases from LUST No. 1545.** Based on this opinion, Ecology will update the status of remedial action at the Site on our database of hazardous waste sites and will initiate the process of removing the Site from our lists of hazardous waste sites, including (if applicable):

- Hazardous Sites List.
- Confirmed and Suspected Contaminated Sites List.
- Leaking Underground Storage Tank List.

Removing your site from these lists may include a public notice and/or a public comment period. Based on the comments received, Ecology will either remove the Site from the applicable lists or withdraw this opinion.

Please understand that this opinion does not settle liability with the state. Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Change the boundaries of the Site.
- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

In addition, this opinion does not constitute a determination of substantial equivalence. To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you proposed will be substantially equivalent. Courts make that determination. See RCW 70.105D.080 and WAC 173-340-545.

Lastly, the state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.030(1)(i).

If you have any questions about this opinion, please contact me by e-mail at russ.olsen@ecy.wa.gov or by phone at (425) 649-7038.

Sincerely,

Russell E. Olsen, MPA
Voluntary Cleanup Unit Supervisor
Northwest Regional Office
Toxics Cleanup Program

SF: sf

Exhibit E: Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

September 18, 2024

Brian Dixon, Project Manager
Dixon Environmental Services
4010 N 7th Street
Tacoma, WA 98406

Dear Mr Dixon:

Included are the results from the testing of material submitted on August 30, 2024 from the Johnson's 0019-23, F&BI 408557 project. There are 26 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
DXN0918R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 30, 2024 by Friedman & Bruya, Inc. from the Dixon Environmental Services Johnson's 0019-23, F&BI 408557 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dixon Environmental Services
408557 -01	B1-5
408557 -02	B1-10
408557 -03	B2-5
408557 -04	B2-10
408557 -05	B3-5
408557 -06	B3-10
408557 -07	B4-5
408557 -08	B4-10
408557 -09	B4-15
408557 -10	B5-5
408557 -11	B5-10
408557 -12	B6-5
408557 -13	B6-10
408557 -14	B6-15
408557 -15	B7-5
408557 -16	B7-12
408557 -17	B7-10
408557 -18	Trip Blank

The 8260D calibration standard did not meet the acceptance criteria for several analytes. The data were flagged accordingly.

The 8260D matrix spike and matrix spike duplicate exceeded the relative percent difference acceptance criteria for methylene chloride. The analyte was not detected therefore the data were acceptable.

The 8260D calibration standard did not meet the acceptance criteria for several analytes. The data were flagged accordingly.

All other quality control requirements were acceptable.

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557
Date Extracted: 09/04/24
Date Analyzed: 09/04/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B1-5 408557-01	ND	ND	ND	95
B1-10 408557-02	ND	ND	ND	99
B2-5 408557-03	ND	ND	ND	99
B2-10 408557-04	ND	ND	ND	96
B3-5 408557-05	ND	ND	D	94
B3-10 408557-06	ND	ND	ND	96
B4-5 408557-07	ND	ND	ND	93
B4-10 408557-08	ND	ND	ND	97
B4-15 408557-09	ND	ND	ND	98
B5-5 408557-10	ND	ND	ND	94
B5-10 408557-11	ND	ND	ND	95

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557
Date Extracted: 09/04/24
Date Analyzed: 09/04/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B6-5 408557-12	ND	ND	ND	96
B6-10 408557-13	ND	ND	ND	94
B6-15 408557-14	ND	ND	ND	93
B7-5 408557-15	ND	ND	ND	97
B7-12 408557-16	ND	ND	ND	96
B7-10 408557-17	ND	ND	ND	94
Method Blank 04-2144 MB	ND	ND	ND	96

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557
Date Extracted: 09/06/24
Date Analyzed: 09/06/24

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES
USING EPA METHOD 8021B**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Surrogate (% Recovery) (Limit 50-150)
B5-5 408557-10	<0.02	<0.02	<0.02	<0.06	90
B5-10 408557-11	<0.02	<0.02	<0.02	<0.06	91
B6-5 408557-12	<0.02	<0.02	<0.02	<0.06	93
B6-10 408557-13	<0.02	<0.02	<0.02	<0.06	87
B6-15 408557-14	<0.02	<0.02	<0.02	<0.06	92
Method Blank 04-1980 MB	<0.02	<0.02	<0.02	<0.06	92

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557
Date Extracted: 09/06/24
Date Analyzed: 09/06/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
B3-5 408557-05	220 x	370	97
Method Blank 04-2164 MB	<50	<250	97

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B1-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-01 1/0.5
Date Analyzed:	09/05/24	Data File:	090525.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	112	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	0.0099
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B2-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-03 1/0.5
Date Analyzed:	09/05/24	Data File:	090526.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	103	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	0.056
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B2-10	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/12/24	Lab ID:	408557-04 1/0.5
Date Analyzed:	09/12/24	Data File:	091214.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	104	84	116

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.002
Chloroethane	<0.1
1,1-Dichloroethene	<0.002
Methylene chloride	<0.4
trans-1,2-Dichloroethene	<0.002
1,1-Dichloroethane	<0.002
cis-1,2-Dichloroethene	<0.002
1,2-Dichloroethane (EDC)	<0.003
1,1,1-Trichloroethane	<0.002
Trichloroethene	<0.002
Tetrachloroethene	<0.0022

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B3-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-05 1/0.5
Date Analyzed:	09/05/24	Data File:	090527.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	109	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	0.0088
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B4-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-07 1/0.5
Date Analyzed:	09/05/24	Data File:	090528.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	113	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	0.0056
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B4-15	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-09 1/0.5
Date Analyzed:	09/05/24	Data File:	090529.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	79	128
Toluene-d8	102	84	121
4-Bromofluorobenzene	111	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	0.0071
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B5-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/13/24	Lab ID:	408557-10 1/0.5
Date Analyzed:	09/13/24	Data File:	091318.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	104	57	146

Compounds:	Concentration mg/kg (ppm)
Tetrachloroethene	<0.002

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B6-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/13/24	Lab ID:	408557-12 1/0.5
Date Analyzed:	09/13/24	Data File:	091319.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	84	120
Toluene-d8	95	73	128
4-Bromofluorobenzene	101	57	146

Compounds:	Concentration mg/kg (ppm)
Tetrachloroethene	<0.002

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B6-15	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/13/24	Lab ID:	408557-14 1/0.5
Date Analyzed:	09/13/24	Data File:	091320.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	84	120
Toluene-d8	96	73	128
4-Bromofluorobenzene	102	57	146

Compounds:	Concentration mg/kg (ppm)
Tetrachloroethene	<0.002

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B7-5	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-15 1/0.5
Date Analyzed:	09/05/24	Data File:	090530.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	107	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1 ca	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	B7-12	Client:	Dixon Environmental Services
Date Received:	08/30/24	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	408557-16 1/0.5
Date Analyzed:	09/05/24	Data File:	090531.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	79	128
Toluene-d8	103	84	121
4-Bromofluorobenzene	115	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Dixon Environmental Services
Date Received:	Not Applicable	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/05/24	Lab ID:	04-2113 mb 1/0.5
Date Analyzed:	09/05/24	Data File:	090519.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	79	128
Toluene-d8	106	84	121
4-Bromofluorobenzene	103	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 ca	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 ca		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Dixon Environmental Services
Date Received:	Not Applicable	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/12/24	Lab ID:	04-2133 mb 1/0.5
Date Analyzed:	09/12/24	Data File:	091209.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	105	57	146

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.002
Chloroethane	<0.1
1,1-Dichloroethene	<0.002
Methylene chloride	<0.4
trans-1,2-Dichloroethene	<0.002
1,1-Dichloroethane	<0.002
cis-1,2-Dichloroethene	<0.002
1,2-Dichloroethane (EDC)	<0.003
1,1,1-Trichloroethane	<0.002
Trichloroethene	<0.002
Tetrachloroethene	<0.002

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Dixon Environmental Services
Date Received:	Not Applicable	Project:	Johnson's 0019-23, F&BI 408557
Date Extracted:	09/13/24	Lab ID:	04-2191 mb 1/0.5
Date Analyzed:	09/13/24	Data File:	091309.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	103	57	146

Compounds:	Concentration mg/kg (ppm)
Tetrachloroethene	<0.002

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES USING EPA METHOD 8021B

Laboratory Code: 409036-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	1.0	85	70-130
Toluene	mg/kg (ppm)	1.0	94	70-130
Ethylbenzene	mg/kg (ppm)	1.0	90	70-130
Xylenes	mg/kg (ppm)	3.0	90	70-130

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 409063-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	102	108	63-146	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	106	77-123

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 408557-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	45	38	10-142	17
Chloromethane	mg/kg (ppm)	2	<0.5	61	61	10-126	0
Vinyl chloride	mg/kg (ppm)	2	<0.05	66	62	10-138	6
Bromomethane	mg/kg (ppm)	2	<0.5	61	61	10-163	0
Chloroethane	mg/kg (ppm)	2	<0.5	40	42	10-176	5
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	74	68	10-176	8
Acetone	mg/kg (ppm)	10	<5	85	93	10-163	9
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	84	78	10-160	7
Hexane	mg/kg (ppm)	2	<0.25	76	77	10-137	1
Methylene chloride	mg/kg (ppm)	2	<0.5	90	37	10-156	83 vo
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	84	80	21-145	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	90	83	14-137	8
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	81	78	19-140	4
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	82	74	10-158	10
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	87	81	25-135	7
Chloroform	mg/kg (ppm)	2	<0.05	83	81	21-145	2
2-Butanone (MEK)	mg/kg (ppm)	10	<1	83	92	19-147	10
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	81	80	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	85	78	10-156	9
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	85	81	17-140	5
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	85	81	9-164	5
Benzene	mg/kg (ppm)	2	<0.03	85	84	29-129	1
Trichloroethene	mg/kg (ppm)	2	<0.02	91	88	21-139	3
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	90	89	30-135	1
Bromodichloromethane	mg/kg (ppm)	2	<0.05	83	81	23-155	2
Dibromomethane	mg/kg (ppm)	2	<0.05	84	84	23-145	0
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	88	93	24-155	6
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	90	91	28-144	1
Toluene	mg/kg (ppm)	2	<0.05	88	84	35-130	5
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	89	89	26-149	0
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	89	87	10-205	2
2-Hexanone	mg/kg (ppm)	10	<1	82	92	15-166	11
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	89	89	31-137	0
Tetrachloroethene	mg/kg (ppm)	2	<0.025	99	93	20-133	6
Dibromochloromethane	mg/kg (ppm)	2	<0.05	90	85	28-150	6
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	92	90	28-142	2
Chlorobenzene	mg/kg (ppm)	2	<0.05	95	90	32-129	5
Ethylbenzene	mg/kg (ppm)	2	<0.05	92	87	32-137	6
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	88	79	31-143	11
m,p-Xylene	mg/kg (ppm)	4	<0.1	94	89	34-136	5
o-Xylene	mg/kg (ppm)	2	<0.05	90	83	33-134	8
Styrene	mg/kg (ppm)	2	<0.05	92	90	35-137	2
Isopropylbenzene	mg/kg (ppm)	2	<0.05	95	87	31-142	9
Bromoform	mg/kg (ppm)	2	<0.05	92	92	21-156	0
n-Propylbenzene	mg/kg (ppm)	2	<0.05	86	88	23-146	2
Bromobenzene	mg/kg (ppm)	2	<0.05	96	99	34-130	3
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	87	87	18-149	0
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	85	86	28-140	1
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	86	90	25-144	5
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	84	83	31-134	1
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	86	91	31-136	6
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	91	93	30-137	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	87	86	10-182	1
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	88	87	23-145	1
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	91	92	21-149	1
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	96	97	30-131	1
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	94	98	29-129	4
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	91	92	31-132	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	77	77	11-161	0
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	95	100	22-142	5
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	102	106	10-142	4
Naphthalene	mg/kg (ppm)	2	<0.05	87	88	14-157	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	94	93	20-144	1

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	85	10-146
Chloromethane	mg/kg (ppm)	2	88	27-133
Vinyl chloride	mg/kg (ppm)	2	94	22-139
Bromomethane	mg/kg (ppm)	2	89	10-201
Chloroethane	mg/kg (ppm)	2	64	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	94	10-196
Acetone	mg/kg (ppm)	10	127	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	110	47-128
Hexane	mg/kg (ppm)	2	108	43-142
Methylene chloride	mg/kg (ppm)	2	117	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	108	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	113	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	108	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	117	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	112	64-135
Chloroform	mg/kg (ppm)	2	108	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	123	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	110	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	110	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	111	64-136
Carbon tetrachloride	mg/kg (ppm)	2	113	60-139
Benzene	mg/kg (ppm)	2	112	65-136
Trichloroethene	mg/kg (ppm)	2	117	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	116	61-145
Bromodichloromethane	mg/kg (ppm)	2	108	57-126
Dibromomethane	mg/kg (ppm)	2	111	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	122	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	119	65-143
Toluene	mg/kg (ppm)	2	98	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	102	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	97	62-131
2-Hexanone	mg/kg (ppm)	10	103	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	100	67-128
Tetrachloroethene	mg/kg (ppm)	2	107	68-128
Dibromochloromethane	mg/kg (ppm)	2	98	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	105	66-129
Chlorobenzene	mg/kg (ppm)	2	104	67-128
Ethylbenzene	mg/kg (ppm)	2	100	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	95	64-121
m,p-Xylene	mg/kg (ppm)	4	103	68-128
o-Xylene	mg/kg (ppm)	2	97	67-129
Styrene	mg/kg (ppm)	2	102	67-129
Isopropylbenzene	mg/kg (ppm)	2	101	68-128
Bromoform	mg/kg (ppm)	2	105	56-132
n-Propylbenzene	mg/kg (ppm)	2	92	68-129
Bromobenzene	mg/kg (ppm)	2	101	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	93	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	94	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	91	61-137
2-Chlorotoluene	mg/kg (ppm)	2	91	69-128
4-Chlorotoluene	mg/kg (ppm)	2	92	67-127
tert-Butylbenzene	mg/kg (ppm)	2	98	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	93	69-128
sec-Butylbenzene	mg/kg (ppm)	2	92	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	99	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	104	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	102	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	97	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	80	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	103	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	111	50-153
Naphthalene	mg/kg (ppm)	2	91	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	100	61-126

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 408557-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2	<0.05	68	72	10-138	6
Chloroethane	mg/kg (ppm)	2	<0.5	46	47	10-176	2
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	85	91	10-160	7
Methylene chloride	mg/kg (ppm)	2	<0.5	92	98	10-156	6
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	91	98	14-137	7
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	85	92	19-140	8
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	87	94	25-135	8
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	87	95	12-160	9
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	87	94	10-156	8
Trichloroethene	mg/kg (ppm)	2	<0.02	94	103	21-139	9
Tetrachloroethene	mg/kg (ppm)	2	<0.025	98	111	20-133	12

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2	75	22-139
Chloroethane	mg/kg (ppm)	2	54	10-163
1,1-Dichloroethene	mg/kg (ppm)	2	86	47-128
Methylene chloride	mg/kg (ppm)	2	94	10-184
trans-1,2-Dichloroethene	mg/kg (ppm)	2	94	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	85	64-135
cis-1,2-Dichloroethene	mg/kg (ppm)	2	90	64-135
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	88	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	89	62-131
Trichloroethene	mg/kg (ppm)	2	94	63-139
Tetrachloroethene	mg/kg (ppm)	2	100	68-128

Date of Report: 09/18/24
Date Received: 08/30/24
Project: Johnson's 0019-23, F&BI 408557

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 409139-19 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	mg/kg (ppm)	2	<0.025	92	89	20-133	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Tetrachloroethene	mg/kg (ppm)	2	98	68-128

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.

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 the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. 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 laboratory control sample(s) percent recovery and/or RPD were 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

408557

SAMPLE CHAIN OF CUSTODY

08/30/24

Page # 1 of 2 (EF, NV)

Report To Brian Dixon

Company Dixon Env. Services

Address 4010 N 7th St.

City, State, ZIP Tacoma, WA

Phone 253-380-4703 Email BrianeDixonES.com

SAMPLERS (signature)

PROJECT NAME: Johnson's

PO #: 0019-23

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Dixon

TURNAROUND TIME
- [x] Standard turnaround VSB1
- [ ] RUSH
- Rush charges authorized by: VSB1

SAMPLE DISPOSAL VWL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cVOCs	PCE			Notes
											ANALYSES REQUESTED						C-per BD 09/13/24 ME
B1-5	01 A-E	8-30-24	930	S	5				X	X							A-per BD 09/05/24 ME
B1-10	02		935						X								
B2-5	03		1000						X	X							B-per BD 09/09/24 ME
B2-10	04		1010						X				B				
B3-5	05		1030			A			X	X							
B3-10	06		1035						X								
B4-5	07		1100						X	X							
B4-10	08		1110						X								
B4-15	09		1115						X	X							
B5-5	10		1200					X	X					C			H2O NaOH VOA 5035's

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Brian Dixon	Dixon ES	8-30-24	1413
Received by:	Anh Phan	FDI	08/30/24	14:13
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

408557

SAMPLE CHAIN OF CUSTODY

08/30/24

Page # 2 of 2

Report To Brian Dixon

Company Dixon ES

Address 4010 N Tacoma St

City, State, ZIP Tacoma WA

Phone 253-380-4703 Email Brian@DixonES.com

SAMPLERS (signature)

PROJECT NAME: Johnsons

PO #: 0019-23

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Dixon

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	PCE				Notes
B5-10	11 A-E	8-30-24	1210	S	5			X	X								A-per BD 09/03/24 ME
B6-5	12		1240					X	X				C				
B6-10	13		1245					X	X								
B6-15	14		1250					X	X				C				
B7-5	15		1310						X	X							
B7-12	16		1315						X	X							
B7-10 added 9/3 JB	17 A-E			Soil	5				A								
									Samples received at 2 °C								
Trip Blanks	18 A/B																

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Brian Dixon	Dixon ES	8-30-24	1413
Received by:	Anh Phan	FBI	08/30/24	14:13
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408557 CLIENT Dixon ES INITIALS/ DATE: AP 08/30/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: 9/3 JS
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 6 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☑ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☐ NA ☑ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☐ Yes ☑ No	☐ Not on COC/label
Time Sampled	☐ Yes ☑ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)
Added BT-10 & Trip Blank to COC

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

Exhibit F: Statistical Compliance Calculations

0.0099	B1-5
0.056	B2-5
0.0011	B2-10
0.0088	B3-5
0.0056	B4-5
0.0071	B4-15
0.001	B5-5
0.001	B6-5
0.001	B6-15
0.001	B7-5
0.001	B7-12

Statistical Analysis

Number of samples		Uncensored values	
Uncensored	11	Mean	0.01
Censored		Lognormal mean	0.01
Detection limit or PQL		Std. devn.	0.01613902
Method detection limit		Median	0.0011
TOTAL	11	Min.	0.001
		Max.	0.056

Lognormal distribution?
r-squared is:

Normal distribution?
r-squared is:

Recommendations:

UCL (Land's method) is 0.0425638241609427