

Subsurface Investigation

Conducted on: Interlake Grocery 7446 Mullen Road SE Olympia, Washington 98503-4577

Prepared for: Mr. In Huh 7446 Mullen Road SE Olympia, Washington 98503-4577

Prepared & Reviewed by:

Nicolas Pushckor, R.S.A. Staff Geologist

SII.

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AEG Project #: 16-158 Date of Report: August 31, 2016

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Boring Logs Laboratory Datasheets Excavation Diagrams NFA Letter and Restrictive Covenant March 1996

1.0 INTRODUCTION

Associated Environmental Group, LLC (AEG) has completed a Subsurface Investigation at Interlake Grocery, located at 7446 Mullen Road SE, in Lacey, Washington (Site). This Subsurface Investigation was performed in general conformance with ASTM E1903-11, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.*

A restrictive covenant was placed on the Site in 1996 following the excavation of petroleumcontaminated soils (PCS), as some PCS was inaccessible and left in place beneath Site structures. The objective of this Subsurface Investigation was to determine whether PCS was still present in Site soils at concentrations above Model Toxics Control Act (MTCA) Method A cleanup levels. To access the areas and depths of residual PCS, AEG advanced two angled soil borings on Site, and collected soil samples for laboratory analysis for gasoline range petroleum hydrocarbons (TPH) and related constituents.

1.1 Site and Vicinity Area Background

The Site is located northwest of the intersection between Mullen Road SE and Carpenter Road SE in Lacey, Washington. The Site encompasses the grocery store at 7446 Mullen Road SE and the house at 4633 Carpenter Road SE. The Site is assigned Thurston County Tax Parcel numbers 11835230101 (grocery store) and 11835230100 (house). The grocery store is located on a 0.38-acre parcel improved with a 1,936-square-foot commercial, one-story building, and a 91-square-foot storage shed. The house is located on a 0.32-acre parcel improved with a 1,662-square-foot rambler-style residence, a 480-square-foot garage, and a 120-square-foot storage shed. Figure 1, *Vicinity Map*, presents the general vicinity of the Site. The Site's current layout is provided in Figure 2, *Site Map*.

1.2 Previous Environmental Activities

1.1.1 Site Assessment Report – Northwest Testing Company – 1992

From September 29, through November 6, 1992, Northwest Testing Company (NTC) completed excavation and remediation activities at the Site. Their Site Assessment report indicated that laboratory tests confirmed that all contaminated soils had been removed from the Site, with the exception of two remaining seams of PCS (sample numbers Pit I and Pit J). These two samples detected gasoline-range TPH at 6,210 milligrams per kilogram (mg/kg) and 2,160 mg/kg, respectively. Sample locations from the excavation are illustrated in Appendix B, *Supporting Documents, Excavation Diagrams*.

According to NTC, the south sidewall pocket of residual PCS (identified by sample Pit I) was located from 13.5 feet below ground surface (bgs) to 16.5 feet bgs, in the middle to just west of the middle of the pit wall area. The northwest sidewall pocket of residual PCS (identified by sample Pit J) measured 48 inches in length by 8 inches in height, and was located 21 feet bgs, directly beneath the southeast corner of the house.

1.1.2 Restrictive Covenant – Department of Ecology – 1996

In March 1996, a Restrictive Covenant was filed with Thurston County for the parcels associated with the Site to document property restrictions associated with residual PCS on Site. As noted above, the residual PCS was located beneath the north wall of the northeast corner of the grocery store building foundation and beneath the southeast corner of the residence located north of the grocery store. The Restrictive Covenant was required by the Washington State Department of Ecology (Ecology) as a condition for Site closure to ensure protection of human health and the environment. Restrictions on Site use included prohibitions on installing drinking water wells, and restrictions on altering any Site structures that might expose the PCS without prior approval from Ecology. A No Further Action (NFA) Letter was subsequently issued for the Site by Ecology on March 22, 1996. A copy of the NFA and Restrictive Covenant is included in Appendix B, *Supporting Documents, NFA Letter and Restrictive Covenant*.

1.3 Site Geology and Hydrogeology

According to the United States Department of Agriculture Natural Resources Conservation Service soil survey, underlying soils at the Site consist of the soil unit Everett, which consists of very gravelly sandy loam, 8 to 15 percent slopes, and very deep, somewhat excessively drained soil on terraces and outwash plains. Permeability of these soils is rapid and available water capacity is low.

Subsurface materials encountered at the Site during this investigation consisted primarily of sandy gravel to the total depth explored of 22 feet bgs. Groundwater was not encountered at the time of drilling. Groundwater flow direction at the Site is not known. Pattison Lake is located approximately 0.25 miles southwest of the Site.

2.0 OBJECTIVES AND SCOPE OF WORK

AEG was retained to perform this Subsurface Investigation to determine whether PCS was still present in Site soils at concentrations above MTCA Method A cleanup levels. AEG advanced two soil borings at a 20-degree angle to total depths of 23 feet bgs and 18 feet bgs, to evaluate the subsurface for the presence of residual PCS. Soil borings were advanced to explore the subsurface beneath the southeast corner of the house and the northeast wall of the grocery store (Figure 2, *Site Map*).

Specific tasks performed included:

- Conducting both public and private utility locates for the Site and vicinity. The public rights of way locates were performed by the Underground Utilities Locate Center; Applied Professional Services, Inc. (APS) provided private utility locates for the Site;
- Advancing two soil borings to a total depth of 23 feet bgs at select locations on the Site, using a direct-push drilling rig;
- Continuously logging the subsurface media during the investigation, to observe and document soil lithology, color, moisture content, and sensory evidence of impairment;
- Collecting soil samples for laboratory analyses at various depths, based on the field observations;
- Containing investigation-derived-wastes, including soil cuttings and decontamination wash fluids, in a 16-gallon steel drum, and storing it on Site awaiting the results of laboratory analyses;
- Transporting and submitting soil samples to Environmental Services Network NW, Inc. (ESN), a Washington State certified analytical laboratory, for analyses;
- Evaluating laboratory analytical results and comparing data to MTCA Method A cleanup levels for soil; and
- Preparing this report presenting final documentation of the field activities and methodologies, and summarizing the analytical results, conclusions, and recommendations.

3.0 FIELD METHODOLOGY

3.1 Soil Borings

On August 3, 2016, AEG supervised the advancement of soil borings B-1 and B-2 at the Site. Boring B-1 was advanced east of the southeast corner of the house, and boring B-2 was advanced north of the northeast wall of the grocery store. Boring B-1 was advanced to a total vertical depth of approximately 23 feet bgs, and boring B-2 was advanced to a total vertical depth of approximately 18 feet bgs via a direct-push drilling rig operated by Environmental Services Network NW, Inc. (ESN), a licensed driller in the State of Washington. Soil samples were collected during drilling for field screening and laboratory analyses. The locations of the soil borings and Site features are illustrated in Figure 2, *Site Map*. Photographs from the investigation are presented in Appendix A, *Site Photographs*. Boring logs and laboratory analytical results are provided in Appendix B, *Supporting Documents*, *Boring Logs, Laboratory Datasheets*.

3.2 Soil Sampling Procedures

Soil sampling methods for this work followed the protocols established by Ecology and the U.S. Environmental Protection Agency (EPA). To minimize volatile organic constituent (VOC) losses, soil sampling and field preservation methods for VOCs followed methods set forth by EPA's Method 5035A and Ecology's guidance, "*Collecting and Preparing Soil Samples for VOC Analysis*". Soil samples were collected from the soil borings via continuous soil cores in an acetate sleeve inside the drilling rod's core barrel. Soils were observed to document soil lithology, color, moisture content, and sensory evidence of contamination. A Photoionization Detector (PID) was used to detect hydrocarbons in the soil cores.

Soil samples were selected for laboratory analysis based on field observations and PID readings. Soil samples were collected and placed into laboratory-provided pre-weighed 40-milliliter (ml) volatile organic analysis (VOA) glass vials and pre-weighed 4-ounce glass jars. The soil samples were transported to the ESN laboratory in Olympia, Washington, for analyses following industry standard chain-of-custody procedures. ESN is a licensed Washington State analytical laboratory. A total of 12 soil samples were analyzed from the six soil borings.

3.3 Laboratory Analyses

Selected soil samples were analyzed for:

- Gasoline-range TPH and BTEX by Method NWTPH-Gx/8260;
- Total lead by EPA Method 6020A/3050B;

- VOCs by EPA Method 8260; and
- Naphthalenes by EPA Method 8270.

3.4 Quality Controls

To ensure that quality information was obtained at the Site:

- All samples were collected in general accordance with industry protocols for the collection, documentation, and handling of environmental samples;
- Descriptions of soil sampling depths were carefully logged in the field. The driller and geologist confirmed sample depths as soil samples were collected;
- Nitrile gloves were worn when handling all sampling containers and sampling devices. Clean gloves were used at each soil boring to prevent cross contamination;
- Sampling equipment was scrubbed with Alconox detergent and rinsed with water prior to each sample extracted;
- Soil samples were tightly packed into laboratory-provided dedicated sampling containers to eliminate sample headspace; and
- Upon sampling, all soil samples were immediately placed into chilled ice chests, and transported for analysis under a chain-of-custody protocol to the ESN analytical laboratory in Olympia, Washington.

The analytical laboratory provided project quality assurance/quality control (QA/QC), including:

- Surrogate recoveries for each sample;
- Method blank results;
- Laboratory control samples; and
- Laboratory control sample duplicates.

All analytical laboratory QA/QC results were within required tolerances. Analytical Laboratory results are provided in Appendix B, *Supporting Documents, Laboratory Datasheets*.

3.5 Investigation-Derived Waste

Investigation-derived waste for this project consisted of soil cuttings from the subsurface exploration activities and decontamination water from decontamination of the drilling core barrel and associated equipment. These wastes were placed in a U.S. Department of Transportation-approved 16-gallon drum. The drum was appropriately labelled, and stored on Site for subsequent characterization and disposal.

4.0 ANALYTICAL RESULTS

Analytical results obtained from soil samples were compared to MTCA Method A cleanup levels. Copies of the laboratory analytical results are provided in Appendix B, *Supporting Documents*, *Laboratory Datasheets*.

4.1 Soil Analytical Results

A total of six soil samples collected from borings B-1 and B-2 were submitted for laboratory analyses. No constituents of concern were detected above laboratory detection limits. Table 1, *Summary of Soil Analytical Results*, presents a summary of soil analytical results as compared to MTCA Method A cleanup levels for soil. Full analytical results are presented in Appendix A, *Laboratory Datasheets*.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Following Site investigation activities, AEG concludes the following:

- Despite the presence of utilities, AEG and ESN were able to successfully advance angled borings B-1 and B-2 to access the areas of residual PCS at depth beneath the two on-Site buildings. No staining or odors were evident during sample recovery. However, elevated PID readings were encountered at depth while advancing the borings, which then decreased at the base of the borings, suggesting the borings were successful in intercepting the residual PCS.
- Soil samples collected at three different depths from each of the borings were nondetect for all contaminants of concern.
- No groundwater was encountered in either of the borings.
- Based on the results of samples collected from the borings, it appears that residual PCS left in place during UST removal activities in 1992 has since naturally degraded to below MTCA cleanup levels.

5.2 **Recommendations**

AEG recommends enrolling the Site into Ecology's Voluntary Cleanup Program, and requesting a review of the Site in consideration of removing the Restrictive Covenant from the parcels associated with the Site, and providing the Site with an unconditional No Further Action (NFA) determination.

6.0 LIMITATIONS

This report summarizes the findings of the services authorized under our agreement with Mr. In Huh. It has been prepared using generally accepted professional practices, related to the nature of the work accomplished. This report was prepared for the exclusive use of Mr. In Huh and his designated representatives, for the specific application to the project purpose.

Recommendations, opinions, Site history, and proposed actions contained in this report apply to conditions and information available at the time this report was completed. Since conditions and regulations beyond our control can change at any time after completion of this report, or our proposed work, we are not responsible for any impacts of any changes in conditions, standards, practices, and/or regulations subsequent to our performance of services. We cannot warrant or validate the accuracy of information supplied by others, in whole or part.

7.0 **REFERENCES**

American Society for Testing and Materials (ASTM) Standard E 1903-97. *Standard Guide Environmental Site Assessments: Phase II Environmental Site Assessment Process.*

Northwest Testing Company. 1992. Site Assessment Report, Interlake Grocery.

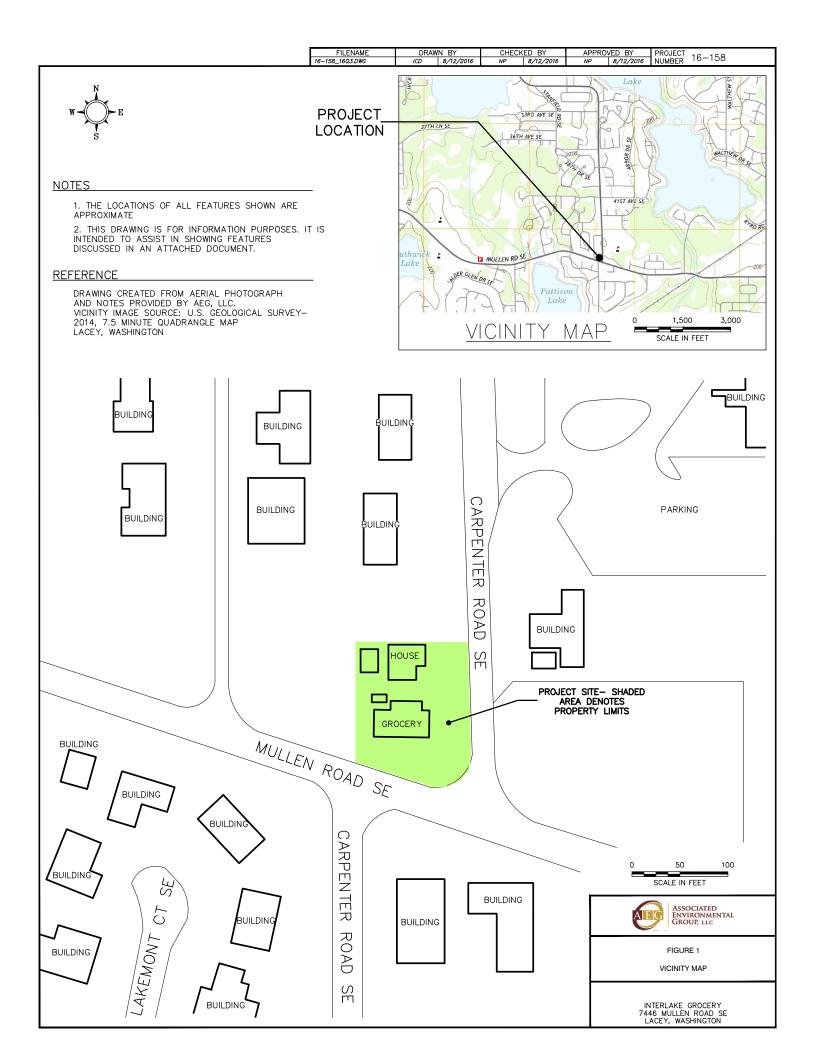
US EPA Method 5035A. *Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples.*

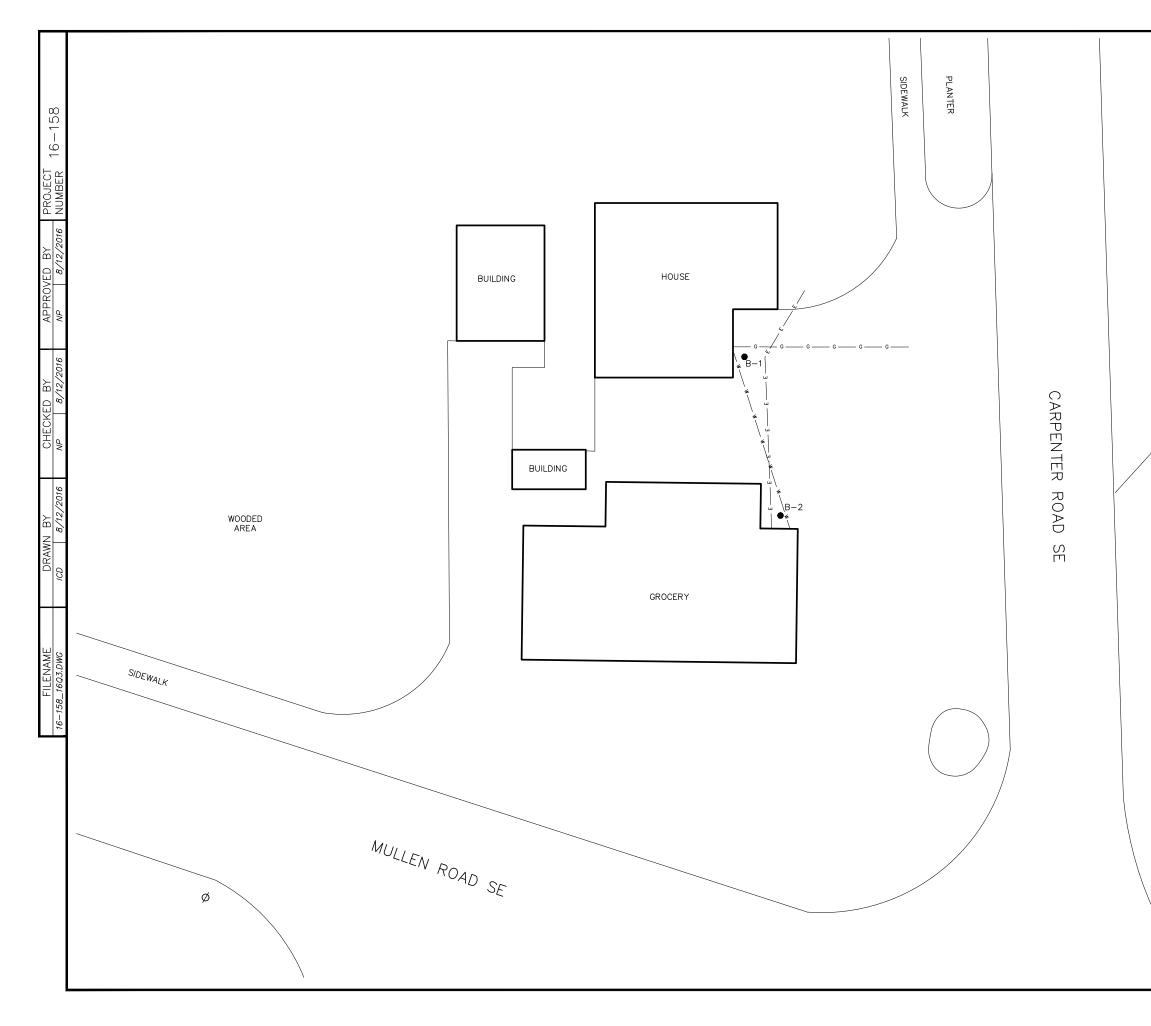
Washington State Department of Ecology, 2004, *Collecting and Preparing Soil Samples for VOC Analysis*, Implementation Memorandum #5.

Washington State Department of Ecology, 2007, *Model Toxic Control Act Statute and Regulation* – *Chapter 173-340 WAC*, Publication number 94-06 (Revised November 2007).

FIGURES

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LEGEND

B-1	• Ø
	E
	G
	w

SOIL BORING LOCATION POWER POLE ELECTRIC LINE GAS LINE WATER LINE

NOTES

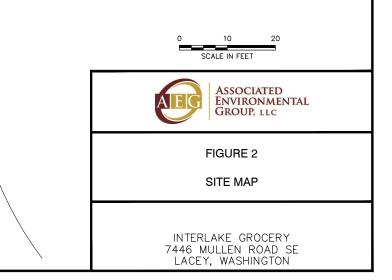
1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE

2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.

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TABLES

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Table 1 - Summary of Soil Analytical Results Interlake Grocery Lacey, Washington

	Depth			Volatile Or	ganic Compound	S							Total
Sample Number	Collected (feet)	Date Collected	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline	Lead	n-Hexane	EDC	EDB	MTBE	Naphthalenes
B1-15	13.7	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10	<5.0	< 0.05	< 0.05	< 0.005	< 0.05	< 0.02
B1-20	18.3	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10						
B1-23	21.0	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10						
B2-10	9.1	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10	<5.0	< 0.05	< 0.05	< 0.005	< 0.05	< 0.02
B2-15	13.7	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10	<5.0	< 0.05	< 0.05	< 0.005	< 0.05	< 0.02
B2-18	16.4	8/3/2016	< 0.02	< 0.05	< 0.05	< 0.15	<10						
	PQL		0.02	0.05	0.05	0.15	10	5.0	0.05	0.05	0.005	0.05	0.02
MTCA M	ethod A Cleanup	Levels	0.03	7	6	9	100*	250			0.005	0.1	5.0

Notes:

All values reported in milligrams per kilogram (mg/kg)

EDC = 1,2-Dichloroethane

EDB = Ethylene Dibromide

MTBE = Methyl-t-butyl ether

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* TPH-Gasoline Cleanup Level with no presence of Benzene anywhere at the Site

APPENDIX A

Site Photographs

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PROPERTY AND VICINITY PHOTOGRAPHIC RECORD

Project No.: 16-158

Project Name: Interlake Grocery, Lacey, Washington August 3, 2016



APPENDIX B

Supporting Documents Boring Logs Laboratory Datasheets Excavation Diagrams NFA Letter and Restrictive Covenant

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	·····									
Loca	tion: 7446 Mullen Road SE, Lacey, WA			Appro	ximate Ele	vation: 1	90 feet msl			
Subc	ontractor / Driller: ESN / Don			Equip	ment / Drill	ing Meth	od: Geopro	obe / Di	rect Pu	sh
Date	: August 3, 2016			Logge	ed By:	Nicolas	Pushckor			
Boring Depth (feet)	Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	Gravel surface underlain by;									
	Brown, moist, medium dense, <u>SANDY GRAVEL</u> ; coarse grained sand, coarse grained gravel	GW	2		-					
-			4	\sim	-					
5			5	\otimes	-					
			6							
			-							
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15			15		B1-15	9:15		153		
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			16		-					
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			18		-					
			19							
20			20		B1-20	9:40		41.7		
					-					
			21		-					
			22		-					
			23	<u> </u>	B1-23			141		
			24							
25	Total Depth = 25 feet		25		B1-25	10:01		12.4		
	Explanation						20 degree	angle		
	Sample Advance / Recovery				Note: dept Total vertic		d length is 22.8 feet	below g	ground	surface
	No Recovery									
	Contact located approximately									

JOB # 16-158

LOG OF BOREHOLE

PAGE 1 OF 1

BORING # B-1

ASSOCIATED ENVIRONMENTAL GROUP, LLC

Interlake Grocery

A E

PROJECT:

Groundwater level at time of drilling or date of measurement



LOG OF BOREHOLE

PROJ	JECT: Interlake Grocery			JOB #	16-158		BORING	# B-2		PAGE 1 OF 1
Locat	tion: 7446 Mullen Road SE, Lacey, WA			Appro	ximate Ele	vation: 1	90 feet ms	sl		
Subco	ontractor / Driller: ESN / Don		I	Equip	ment / Drill	ling Meth	od: Geop	robe / Dii	rect Pu	sh
Date	: August 3, 2016		l	Logge	d By:	Nicolas	Pushckor			
Boring Depth (feet)	Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	Gravel and dirt surface underlain by; Brown, moist, medium dense, SANDY GRAVEL ; coarse grained s coarse grained gravel	and, GW	1							
5		-	4 5 6	<u> </u>		10:40				
10		-	7 8 9 10		B2-10	10:46		381		
15		-	12 13 14 15		B2-15	10:55		356		
			16		B2-18	11:10		14.2		
20			19		B2-20	11:10		8.4		
	Total Depth = 20 feet				,					
25	E-mlan effer									
	Explanation Image: Sample Advance / Recovery Image: No Recovery				Boring adv Note: dept Total vertio	hs are roo	d length		round	surface
	Contact located approximately									
	Groundwater level at time of drilling or date of measurement									



Environmental

Services Network

August 8, 2016

RECEIVED AUG 1 1 2016 AEG

Nicolas Pushckor Associated Environmental Group, Inc. 605 11th Ave. SE, Suite 201 Olympia, WA 98501

Dear Mr. Pushckor:

Please find enclosed the analytical data report for the Interlake Grocery in Lacey, Washington. Probe services were conducted on August 3, 2016. Soil samples were analyzed for Gasoline by NWTPH-Gx and BTEX by Method 8260 on August 4, 2016.

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

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

Sincerely,

Michaela Korace

Michael A. Korosec *President*

Associated Environmental Group PROJECT INTERLAKE GROCERY PROJECT #16-158 Lacey, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	8/4/2016	8/4/2016	nd	nd	nd	nd	nd	114
LCS	8/4/2016	8/4/2016	103%	87%	88%	93%	90%	105
LCSD	8/4/2016	8/4/2016	96%	88%	89%	92%		105
B1-15	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	112
B1-20	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	112
B1-20 Duplicate	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	112
B1-23	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	115
B2-10	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	113
B2-15	8/3/2016	8/4/2016	nđ	nd	nd	nd	nd	114
B2-18	8/3/2016	8/4/2016	nd	nd	nd	nd	nd	118
							-	
Reporting Limits			0.02	0.05	0.05	0.15	10	

"---" Indicates not tested for component.

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Bromoflurorbenzene) & LCS: 65% TO 135%

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1. BI-10	10	402	Soil	VOA/54	R	X	X		T	1						Í	Í	Í	T	Í	Í	Hold				
2. BI-15	15	915	1	1		1	/												1							
3. RI-20	20	940			1	6	(Contra P						1.46												
4. BI-23	23	1001			1	3)	8	2								-in-					1.1.1				
5. BI-25	25	1001	/	/		1																Hold				
6. BZ-10	10	104A		1			1														6118	and the second				
7. BZ-15	15	105	5 \																							
8. BZ - 18	18	110																				: .				
9. 82 -20	20	110		1																		Hold				
10.							.)																			
11.																										
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14.	days)									1				2.1												
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16.																										
17.																										
18.																										
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Am Wh 2	13/1	6		Q'	2		e.	-3-1L	11	30					TODY				12							
RELINQUISHED BY (Signatu	re)	DAT	E/TIME	RECE	IVED	BY (Signa	ture)		DA	TE/TIN	ЛE	SEA	LS INT	ACT	? Y/N/	NA			1.8.1	100						
												-		GOO	DD CO	ND./	COLD				1				5	-
1210 Eastside Street SE, Sui	te 200				1		1	P	hone	: 360-4	150 4	N01	ES:				6 A.F.	-				Turn Around	-	24 HR 4		/
Olympia, Washington 98501										360-45														lail: info		and the second se



21 5

Environmental

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August 10, 2016

Nicolas Pushckor Associated Environmental Group, Inc. 605 11th Ave. SE, Suite 201 Olympia, WA 98501 RECEIVED AUG 1 5 ZU16 AEG

Dear Mr. Pushckor:

Please find enclosed the analytical data report for the Interlake Grocery in Lacey, Washington. Soil samples were analyzed for the GRO Suite on August 4 - 9, 2016.

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

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

Sincerely,

michaela Kocosee

Michael A. Korosec President

Associated Environmental Group INTERLAKE GROCERY PROJECT Client Project #16-158 Lacey, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260

	RL	MTH BLK	LCS	LCSD	B1-15	B2-10	B2-15
Date analyzed	(mg/Kg)	08/04/16	08/04/16	08/04/16	08/04/16	08/04/16	08/04/16
	0.05	1	000/	0.407			
n-Hexane	0.05	nd	99%	94%	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	109%	98%	nd	nd	nd
Ethylene Dibromide (EDB)	0.005	nd	96%	96%	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	74%	65%	nd	nd	nd
Naphthalene	0.05	nd	67%	96%	nd	nd	nd
Surrogate recoveries:							
Dibromofluoromethane		104%	110%	101%	101%	106%	104%
Toluene-d8		102%	94%	96%	105%	106%	104%
4-Bromofluorobenzene		114%	105%	107%	112%	114%	118%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

Associated Environmental Group PROJECT INTERLAKE GROCERY PROJECT #16-158 Lacey, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Naphthalenes in Soil by Method 8270 Analytical Results MTH BLK LCS **B1-15 B2-10 B2-15** Date extracted Reporting 08/09/16 08/09/16 08/09/16 08/09/16 08/09/16 Date analyzed Limits 08/09/16 08/09/16 08/09/16 08/09/16 08/09/16 Moisture, % (mg/kg) 5% 4% 6% Naphthalene 0.02 nd 82% nd nd nd 2-Methylnaphthalene 0.02 nd 83% nd nd nđ 1-Methylnaphthalene 0.02 nd ns nd nd nd Surrogate recoveries: 2-Fluorobiphenyl 91% 83% 70% 68% 69% p-Terphenyl-d14 103% 84% 112% 110% 115%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte

nd - not detected at listed reporting limits ns - not spiked Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150% Acceptable RPD limit: 35%

Associated Environmental Group PROJECT INTERLAKE GROCERY PROJECT #16-158 Lacey, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Sample	Date	Date	Lead (Pb)
Number	Prepared	Analyzed	(mg/kg)
Method Blank	8/5/2016	8/8/2016	nd
B1-15	8/5/2016	8/8/2016	nd
B2-10	8/5/2016	8/8/2016	nd
B2-15	8/5/2016	8/8/2016	nd
B2-15 Duplicate	8/5/2016	8/8/2016	nd
Reporting Limit			5.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Analysis of Total Metals in Soil by Method 6020A/3050B

Analysis of Total Lead in Soil by Method 6020A/3050B

		Matrix Spik	e	Matr	ix Spike Du	plicate	RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	74.6	73.7	98.8	92.6	86.5	93.4	5.6

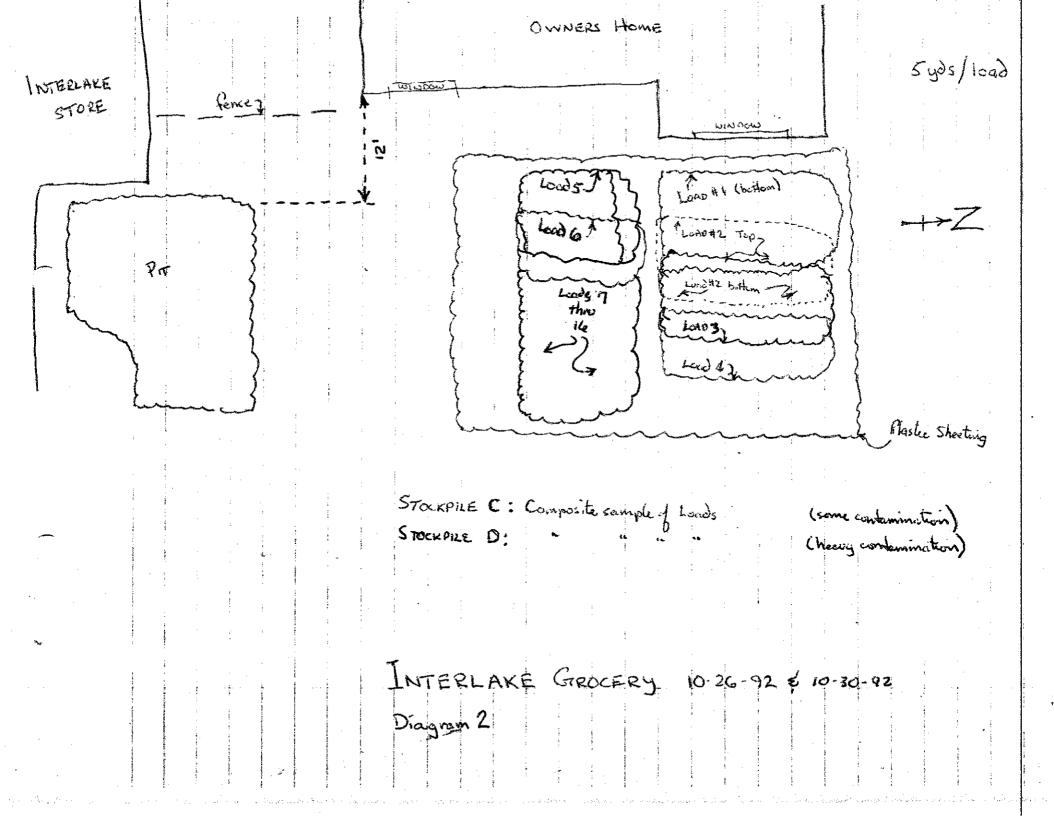
	Labora	atory Control	Sample
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead (Pb)	100	95.2	95.2

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

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+7 2. OWNERS HOUSE NTERLAKE STORE SIDEWALK 1 1. 1.0 ৻৻ Pury buy 740 250 3.47.6 STOCKPILE A.REAsee DIAGRAM O & KAINAL PLACEMENT #2 PREVIOUS YOMP STATICASS INTERLAKE GROCERY Diagram 1 10-30-92; 11-516-92 ロシン CARPENTER ROAD おうつ NOTE: The location of samples as noted in the report correspond to the pit's escavated dimensions of the time of the sample. Rt dimensions were continuously increased to remove contamination.

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY P.O. Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

March 22, 1996

Mr. In Huh 7446 Mullen Road S.E. Olympia, WA 98503

Dear Mr. Huh:

Thank you for submitting the results of your independent remedial action for review by the Washington State Department of Ecology (Ecology). Ecology appreciates your initiative in pursuing this administrative option under the Model Toxics Control Act (MTCA). Ecology's Toxics Cleanup Program (TCP) has reviewed the following information relating to the Interlake Grocery site (Ecology LUST database #3958), located at 7446 Mullen Road, Olympia, Washington 98503:

Northwest Testing Company, Site Assessment Report, September 22 1992.

Northwest Testing Company, Site Assessment Report, October 26 1992.

Northwest Testing Company, Site Assessment Report, November 6, 1992.

Northwest Testing Company, Site Assessment Report, March 26, 1993.

Northwest Testing Company, Site Assessment Report, August 30, 1993.

Northwest Testing Company, Site Assessment Report, March 15, 1993.

Northwest Testing Company, Site Assessment Report, March 8, 1994.

Harold's Petroleum, Inc., Site Inspection Report, October 12, 1995.

Harold's Petroleum, Inc., Site Inspection Report, October 30, 1995.

Ecology acknowledges that a restrictive covenant on the Interlake Grocery property, executed by the property owner, has been recorded with the register of deeds for Thurston County (copy of recorded covenant enclosed).

These reports will be kept in the Central Files of the Southwest Regional Office (SWRO) of Ecology for review by appointment only. Appointments can be made by calling the SWRO resource person, at (360) 407-6365.

Ecology conducted on and off-site sampling on October 24, 1995. The on site soil sampling indicated that the soil remediation areas are not contaminated above MTCA Method A soil cleanup standards for gasoline petroleum hydrocarbons. The off-site ground water sample collected from the previously impacted drinking water well, located across Carpenter Road (to



Mr. In Huh March 22, 1996 Page 2

the east of the site) indicated that the well water did not contain gasoline petroleum hydrocarbons, benzene, ethylbenzene, toluene, xylene or lead at the time the samples were collected.

Based on the above listed information, Ecology has determined that, at this time, the release of petroleum into the soil and ground water no longer poses a threat to human health or the environment. This determination is made subject to the conditions outlined in the previously mentioned restrictive covenant.

Therefore, Ecology is issuing this determination that no further action is necessary at this site under the Model Toxics Control Act (MTCA), Ch. 70.105D RCW. However, please note that because your actions were not conducted under a consent decree with Ecology, this letter is not a settlement by the state under RCW 70.105D.040(4).

This determination is made only with respect to the release identified in the independent remedial action reports dated September 22 1992, October 26 1992, November 6, 1992, March 26, 1993, August 30, 1993, March 15, 1993, March 8, 1994, October 12, 1995, and October 30, 1995. This no further action determination applies only to the area of the property affected by the release identified in the reports at 7446 Mullen Road, Olympia, Washington 98503. It does not apply to any other release or potential release at the property, or any other properties.

Ecology does not assume any liability for any release, threatened release or other conditions at the site, or for any actions taken or omitted by any person or his/her agents or employees with regard to the release, threatened release, or other conditions at the site.

Ecology will update the appropriate site databases to reflect this "No Further Action" determination. Your site will not appear in future publications of the LUST database or the Confirmed or Suspected Sites List.

If you have any questions about any of the information presented in this letter, please contact me at (360) 407-6267.

Sincerely,

Ruhn V. Heyp

Richard V. Heggen Site Assessor Toxics Cleanup Program Southwest Regional Office

RVH:jr Enclosure

cc: Maia Bellon, Attorney General's Office Tracy Forsberg, Thurston County Health Dept. Saxon Rodgers Dave Swanson



3019635 Page: 1 of 2 03/19/96 08:25A Thurston Co, WA

RESTRICTIVE COVENANT on the Interlake Grocery Property 7446 Mullen Road SE, City of Olympia, Washington

The property that is the subject of this Restrictive Covenant has been the subject of an independent remedial action under Chapter 70.105D RCW. The remedial actions undertaken to clean up the property (hereafter the "Cleanup Actions") are described in reports by Northwest Testing Company (reports dated September 22, 1992, October 26, 1992, November 6, 1992, March 26, 1993, August 30, 1993, March 15, 1993, and March 8, 1994), and Harold's Petroleum, Inc. (reports dated October 12, 1995 and October 30, 1995). The above mentioned documents are kept in the central files at the State of Washington Department of Ecology ("Ecology") Southwest Regional Office.

The undersigned, DAVID A. SWANSON, is the fee owner of real property in the County of Thurston, State of Washington, hereafter referred to as the "Site". The site is legally described as follows:

<u>PARCEL A</u>: That part of the Southwest quarter of the Northwest quarter of Section 35, Township 18 North, Range 1 West, W.M., lying Westerly of county road known as Carpenter Road and South of a line running South 88° 14' 30" East from a point on the West line of said Southwest quarter of the Northwest quarter South 1° 30' 51" West 655.13 feet from its Northwest corner and Northerly of county road known as Mullen Road.

The residual gasoline contaminated soil that is the subject of this restrictive covenant is described in the above-referenced documents.

This Restrictive Covenant is required by Ecology as defined in WAC 173-340-440 because the Cleanup Action resulted in residual concentrations of gasoline which exceed Model Toxics Control Act Method A cleanup levels for soil established under WAC 173-340-720(2).

DAVID A. SWANSON makes the following declaration as to limitations, restrictions, and uses to which the Site may be put, and specifies that such declarations shall constitute covenants to run with the land, as provided by law, and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Site.

<u>Section 1</u>: The residual contamination that is the subject of this restrictive covenant consists of gasoline contaminated soil located beneath the north wall of the northeast corner of the

grocery store building foundation and beneath the southeast corner of the residential dwelling located north of the grocery store and is more specifically described in the above-referenced reports. Remediation or removal of the contaminated soil must be addressed before the owner or successor owner alters, modifies, or removes the existing buildings in any manner that exposes the residual contamination. Any plans for alteration, modification, or removal of the above-mentioned structures shall be submitted to and approved by Ecology or its successor agency prior to such actions.

<u>Section 2</u>: The owner of the property must give written notice to Ecology, or to its successor agency, of the owner's intent to convey any interest in the property.

Section 3: No conveyance of title, easement, lease, or other interest in the property shall be consummated by the owner without adequate and complete provision for continued compliance with this deed restriction.

<u>Section 4</u>: The owner must notify and obtain approval from Ecology, or its successor agency, prior to any use of the property that is inconsistent with the terms of this Restrictive Covenant. Ecology or its successor agency may approve any inconsistent use only after appropriate public notice and comment.

Section 5: The owner shall allow authorized representatives of Ecology, or its successor agency, the right to enter the property at a reasonable time, after prior notice, for the purpose of evaluating the Cleanup Action, taking samples, inspecting remedial actions conducted at the property, and inspecting records that are related to the Cleanup Action.

<u>Section 6</u>: No wells shall be hereafter installed in the subject property for the extraction of potable water for human ingestion.

Section 7: The owner of the Site and the owner's assigns and successors in interest reserve the right under WAC 173-340-440(7) to record an instrument which provides that this Restrictive Covenant shall no longer limit use of the property or be of any further force or effect. However, such an instrument may be recorded only with the consent of Ecology, or its successor agency. Ecology, or its successor agency, may consent to the recording of such an instrument only after appropriate public notice and comment.

DATE: Maz 11. 1996

DAVID A. SWANSON, Site Owner



3019635 Page: 2 of 2 N3/19/96 N9:259 Thurston Co, WA