

GEOCONSULTING, INC.

Environmental Geoscience

15306 Plainview Place
Monroe, WA 98272
425-350-7645
jimcoppernoll@outlook.com



October 12, 2017

Mason Kim

Subject: **Addendum to Limited Subsurface Investigation Report**
Sunny's Deli Mart
10545 SE Carr Road
Renton, Washington

Dear Mr. Kim:

Per your request, GeoConsulting, Inc. (GeoConsulting) completed a limited subsurface investigation at Sunny's Deli Mart (Site) in August 2017. That work is documented in our *Limited Subsurface Investigation Report*, dated August 17, 2017. In September 2017, you authorized further investigation that included two additional soil borings/well installations at the Site. The results of the additional September 2017 investigation are presented in this addendum to the *Limited Subsurface Investigation Report*. The information presented herein is intended to be considered with the August 2017 report.

PROJECT DESCRIPTION

The Site comprises 0.45 acres on the southeast corner of SE Carr Road and 105th Place SE in the city of Renton, King County, Washington (King County Parcel No.: 322305-9237; T.2N., R.5W., Sec 32. NW1/4). The attached *Figure 1 - Site Location Map* depicts the Site location and vicinity.

Sunny's Deli Mart, a neighborhood convenience market with gasoline/diesel sales, occupies the Site. Improvements include a 1,440-square-foot convenience store near the southern property boundary, three gasoline/diesel USTs immediately north of the market building, and four multi-grade product dispensers under a separate steel canopy north of the USTs. Access to the Site is from the north via SE Carr Road and from the west via 105th Place SE. Except for a planter along the northern and western boundaries, the remaining area is paved with asphalt.

Topographically, the Site is situated at 353 feet above sea level with a slight downward slope to the northwest. The neighborhood is commercial.

PURPOSE

The results of the August 2017 Limited Subsurface Investigation indicated that gasoline-range organics as well as some BTEX compounds are present in groundwater west and

northwest of the current dispensers to at least the property boundary. In addition, diesel- and oil-range organics are present in groundwater across much of the Site. The presence of diesel- and oil-range organics in groundwater is inconsistent with the known fuel storage and distribution history of the Site. The purpose of the work described in this addendum was to further define the limits of the diesel- and oil-range organics at the southern and upgradient limits of the Site.

FIELD ACTIVITIES

On September 22, 2017, a licensed driller from ESN Northwest, Inc. (ESN - under contract to GeoConsulting, Inc.) advanced borings GCB-6 and GCB-7 near the southwestern and southeastern corners of the Site. Using a Bobcat-mounted AMS 9100 direct push rig, ESN advanced boring GCB-6 to 15 feet below the ground surface (BGS) and GCB-7 to 13 feet BGS. The borings were completed as groundwater monitoring wells MW-8 and MW-9, respectively. The well construction included installing 1-inch diameter Schedule 80 well screen with a blank riser in each boring. In each case, the annular space was backfilled with washed sand to approximately two feet above the screened portion. Bentonite was then backfilled around the riser and the wells were finished to the surface with 9-inch diameter well monuments set in concrete. The attached *Figure 2, Site and Exploration Map* presents the Site layout and well locations.

GeoConsulting chose boring and well installation locations as follows:

- Boring GCB-6/MW-8 was located near the western property line in the southwest portion of the Site. This location was chosen to assess soil and groundwater downgradient of the store building and any potential historical auto shop features and to assess for potential off-Site contaminant sources.
- Boring GCB-7/MW-9 was located in the extreme southeast corner of the Site. This location was chosen for its upgradient location to assess for potential off-Site sources.

The driller placed all soil cuttings, decontamination water, and purge/development water in 50-gallon drums that were left on Site pending analysis.

Soil Investigation

In each boring, ESN drove a 5-foot long stainless-steel sampler lined with a plastic sampling sleeve in 5-foot intervals utilizing a hydraulically operated hammer. The driller then withdrew the sampler and the GeoConsulting hydrogeologist collected a small amount of the sample for field screening, collected a sample for laboratory analysis, and logged the sample by the Unified Soil Classification System. Laboratory samples for volatile compound analysis were collected per Method 5035. Samples for non-volatile analysis were collected in 4-ounce jars. The hydrogeologist placed all samples in the appropriate laboratory-prepared jars, labeled them, and placed them in a cooler until delivery to the analytical laboratory.

The hydrogeologist observed silt and silty sand with sub-rounded to rounded gravel from below the substrate to the maximum depth explored in both borings.

Groundwater was encountered at approximately 7 to 10 feet below the ground surface in each of the borings, based on soil sample water content. The attached *Boring Logs*

present lithology and well construction details.

Groundwater Investigation

On September 25, 2017, GeoConsulting measured the groundwater elevation in MW-8 and MW-9 prior to purging and sampling the wells. The hydrogeologist used an auto level and stadia rod to measure the elevation of the reference point of each well casing relative to an on-site datum assigned an elevation of 353.00 feet, based on Washington Department of Ecology EIM Groundwater Map Search data. The resulting data was used to calculate the elevation of groundwater in the wells relative to the 353.00-foot datum. The well number, the Department of Ecology well number, and the groundwater elevation for each well is shown in the following table:

Well No.	MW-8	MW-9
Dept. of Ecology Well No.	BJR 525	BJR 654
Groundwater Elevation	344.30 ft.	350.46 ft.

GeoConsulting calculated the groundwater migration direction across the Site using well location and groundwater data. The groundwater migration direction is generally toward the west-northwest across the Site.

LABORATORY ANALYSIS

GeoConsulting submitted two soil samples from each boring to ESN Northwest, Inc., a Washington State certified analytical laboratory, for analysis of gasoline-range organics, diesel- and oil-range organics, benzene, toluene, ethylbenzene, and xylenes.

GeoConsulting also submitted one groundwater sample each from MW-8 and MW-9 to OnSite Environmental, Inc., a Washington State certified analytical laboratory, for analysis of the following: gasoline-range organics, diesel- and lube oil-range organics, as well as benzene, toluene, ethylbenzene, and xylenes. All soil and groundwater samples were delivered to the laboratory under chain-of-custody procedures within the required holding times.

Soil Analytical Results

All soil sample results are below the Washington State Department of Ecology Method A cleanup levels and laboratory practical quantitation limits (PQLs). *Table 1—Soil Analytical Data Summary* summarizes the soil analytical results.

Table 1
Soil Analytical Data Summary

Sample ID	Sample Date	Sample Depth (ft.)	GRO (mg/kg)	DRO/Lube Oil RO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)
GCB-6-4	9/22/17	4	<10	<50/<100	<0.02	<0.05	<0.05	<0.15
GCB-6-8	9/22/17	8	<10	<50/<100	<0.02	<0.05	<0.05	<0.15
GCB-7-5	9/22/17	5	<10	<50/<100	<0.02	<0.05	<0.05	<0.15
GCB-7-7	9/22/17	7	<10	<50/<100	<0.02	<0.05	<0.05	<0.15
Method A Cleanup Level			30 mg/kg / 100 mg/kg*	2000/4000	0.03	7	6	9
Lab Method			NWTPH-Gx	NWTPH-Dx extended	8260	8260	8260	8260

NWTPH-Gx = Northwest method for gasoline-range organics.

<0.05 = Indicates concentrations were less than the stated laboratory reporting limit of 0.05 mg/kg.

mg/kg = Milligrams per kilogram (ppm).

ND = The results are below the laboratory detection limits.

Groundwater Analytical Results

All groundwater sample results are below the Washington State Department of Ecology Method A cleanup levels and laboratory practical quantitation limits (PQLs). *Table 2—Groundwater Analytical Data Summary* summarizes groundwater results.

Table 2
Groundwater Analytical Data Summary

Sample ID	Date Sampled	GRO (µg/L)	DRO/Lube Oil RO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)
MW-8	9/25/17	<100	<0.26/<0.42	<1.0	<1.0	<1.0	<1.0
MW-9	9/25/17	<100	<0.27/<0.43	<1.0	<1.0	<1.0	<1.0
Method A Cleanup Level		800 µg/l / 1,000 µg/l*	0.5 mg/l	5 µg/l	1,000 µg/l	700 µg/l	1,000 µg/l
Laboratory Methods		NWTPH-Gx	NWTPH-Dx Ext.	8021B	8021B	8021B	8021B

NWTPH-Gx = Northwest method for gasoline-range organics.

NWTPH-Dx ext. = Northwest method for diesel and lube oil range organics.

<1.0 = Indicates concentrations were less than the stated laboratory reporting limit of 1.0 µg/L.

µg/L = Micrograms per liter.

Mg/L = Milligrams per liter.

800 µg/l / 1,000 µg/l = The cleanup level is 800 µg/l when benzene is not present and 1,000 µg/l when benzene is present.*

The attached *Certified Laboratory Reports* present detailed analytical procedures and results.

CONCLUSIONS AND RECOMMENDATIONS

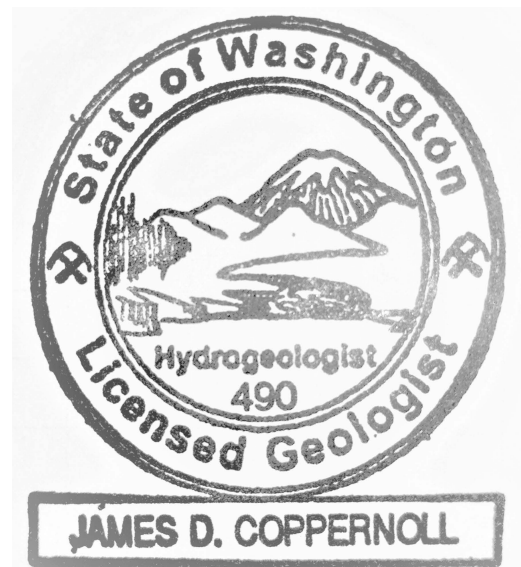
The presence of diesel- and oil-range organics in Site groundwater is inconsistent with the known fuel storage and distribution history of the Site. The purpose of this work was to further define the limits of the diesel- and oil-range organics at the southern and upgradient limits of the Site.

The results do not indicate diesel- or oil-range organics in soil or groundwater in the upgradient areas of the Site, with respect to the inferred groundwater migration direction. Therefore, migration of contaminants onto the Site from an upgradient off-Site source is not indicated by these results. The source of these compounds in other areas of the Site remains unknown.

Sincerely,
GeoConsulting, Inc.



James D. Coppernoll, L.G, L.HG
President



Attachments: Figure 1, Site Location Map
Figure 2, Site and Proposed Exploration Map
Boring Logs
Certified Laboratory Reports

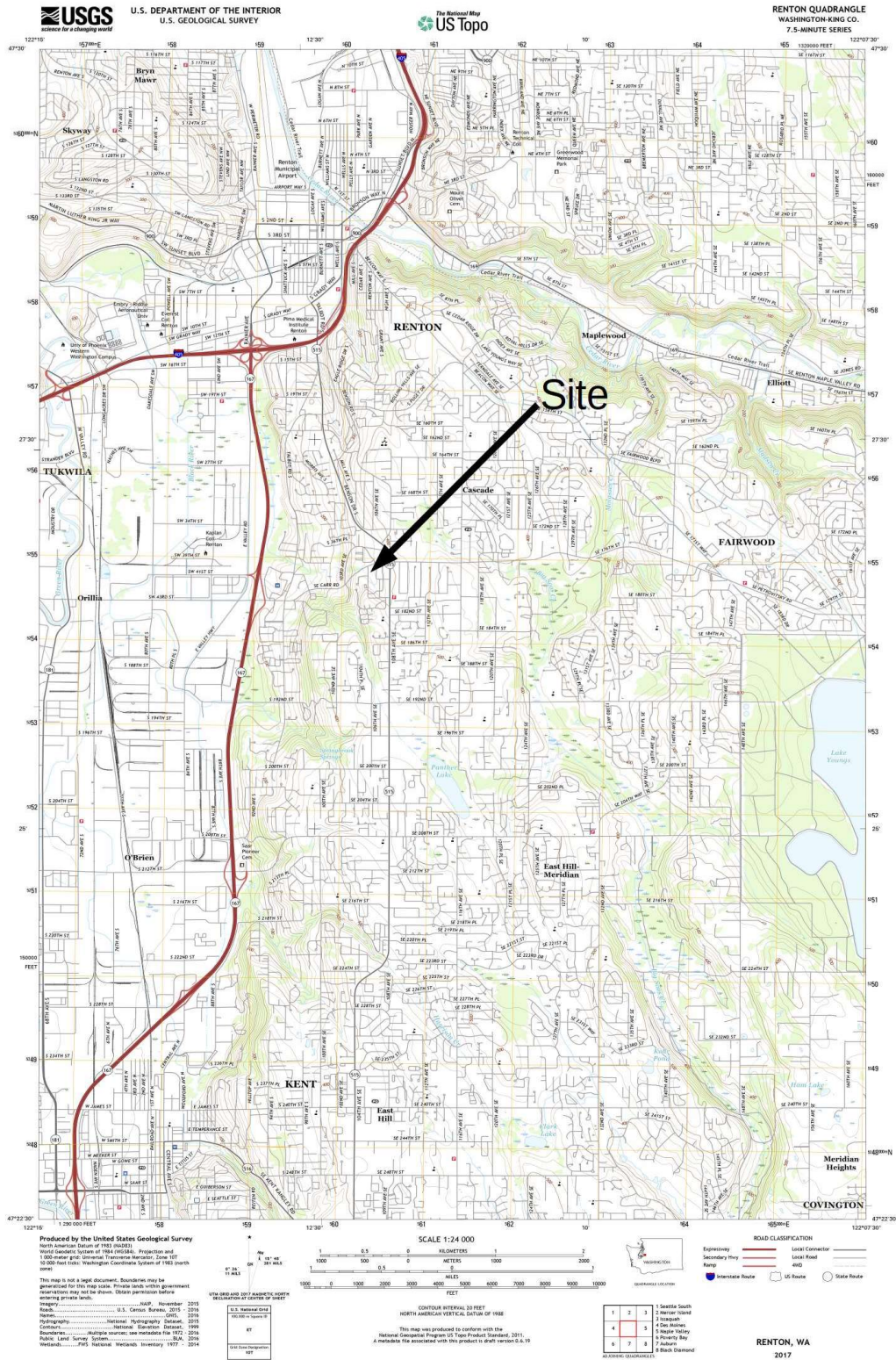


Figure 1 – Site Location Map
Sunny's Deli Mart
10545 Carr Road SE
Renton, Washington

GeoConsulting, Inc.
June 28, 2017

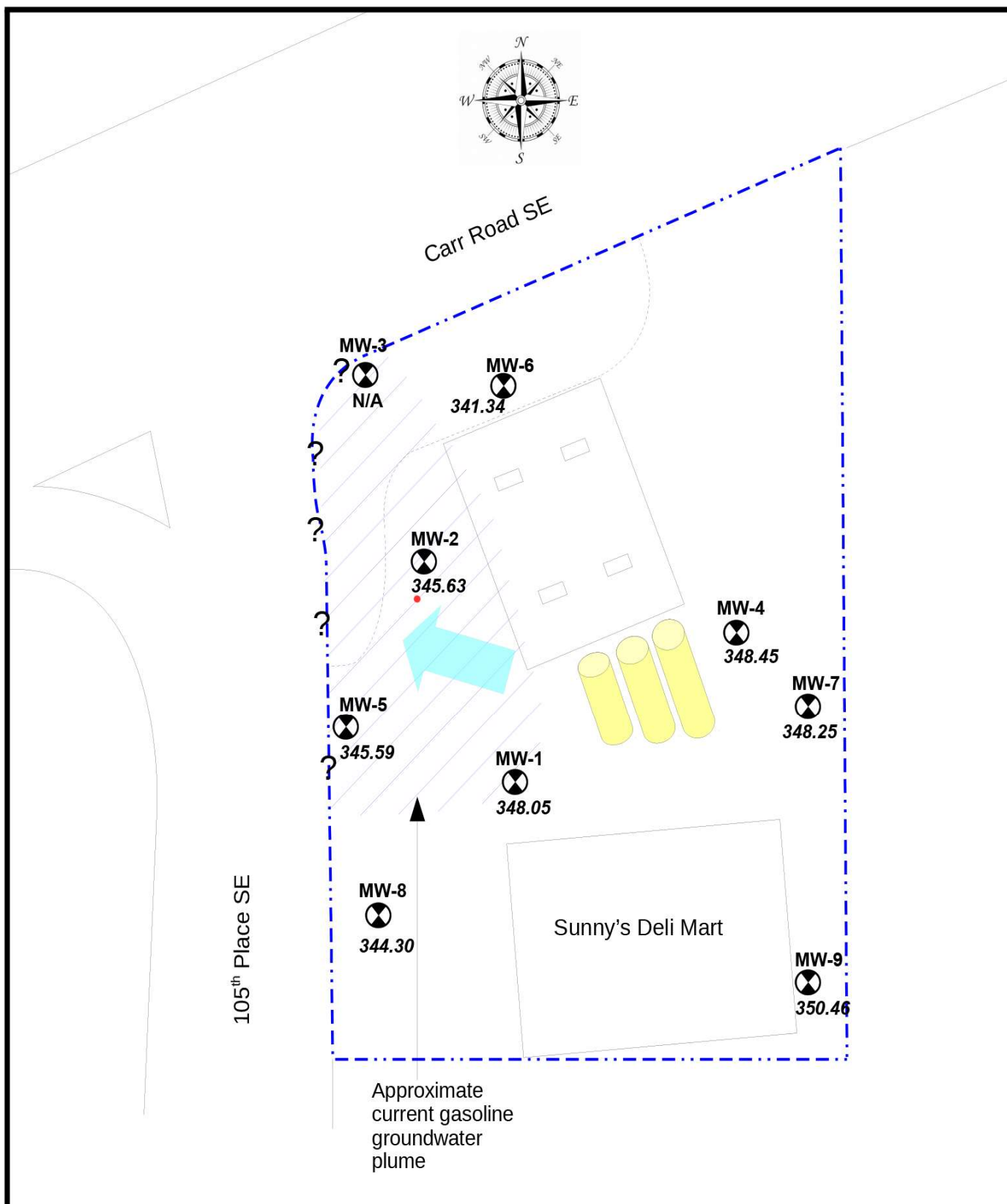


Figure 2 – Site and Exploration Map

Sunny's Deli Mart
10545 Carr Road SW
Renton, Washington

GeoConsulting, Inc.

September 26, 2017

- Soil boring location.
- ⊗ Groundwater monitoring well location.
- Inferred groundwater migration direction.
- 348.05 Groundwater elevation.

Boring Log					GCB-6/MW-8			1 of 1	
					Drilling Co.: ESN Driller: Martin		Method: Direct Push	Logged By: Jim Coppernoll	
GeoConsulting, Inc.					Lat:		Ele: ~355 ft.	Well Depth: 15 ft.	
					Long:		TOC Ele: 354	Casing Diameter: 1 in.	
Project No.: SER01-1702					Depth to Water at time of drilling: ~10 ft.			Date Drilled: 09/22/2017	
					Boring Depth: 15 ft.				
Address: 10545 SE Carr Road, Renton, Washington					Sandpack: 3 – 15		Seal: 0.5 - 3		
Depth (Feet)	Rec.	PID	Time	Soil	Description				Well
1					Asphalt Surface.				
2									
3									
4									
5	45	0	8:18	ML	SILT; olive-green, moist, with very fine sand.				
6									
7									
8									
9									
10	50	0	8:45	ML	Becomes wet.				
11									
12									
13									
14					No sample				
15									

Boring Log					GCB-7/MW-9		1 of 1	
					Drilling Co.: ESN	Method: Direct Push	Logged By: Jim Coppernoll	
					Driller: Martin			
GeoConsulting, Inc.					Lat:	Ele: ~356.5 ft.	Well Depth: 13 ft.	
					Long:	TOC Ele: 356	Casing Diameter: 1 in.	
Project No.: SER01-1702					Depth to Water at time of drilling: ~7 ft.		Date Drilled: 09/22/2017	
					Boring Depth: 13 ft.			
Address: 10545 SE Carr Road, Renton, Washington					Sandpack: 3 – 13	Seal: 0.5 - 3		
Depth (Feet)	Rec.	PID	Time	Soil	Description		Well	
1					Concrete Surface.			
2								
3								
4								
5	50	0	9:57	ML	SILT; tan, with very fine sand.			
6								
7				SP	---- SAND; orange-tan, saturated, fine to medium. ----			
8								
9								
10	60	0	10:13	ML/SM	SILT/SAND; gray, damp, very dense, with sub-rounded gravel.			
11								
12								
13					No sample			

CHAIN-OF-CUSTODY RECORD

CLIENT: Geo Consulting, Inc. **DATE:** 9/22/17 **PAGE:** 1 **OF:** 1
ADDRESS: 15306 Plainview Pl, Monroe, WA **PROJECT NAME:** Sunays Deli
PHONE: 425-350-7645 **FAX:** email: jim.geoconsulting@gmail.com **LOCATION:** 10545 SE Carr Rd, Renton
CLIENT PROJECT #: SEWER-1706 **PROJECT MANAGER:** Jim Copperrall **COLLECTOR:** Jim Copperrall **DATE OF COLLECTION:** 9/22/17

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES										NOTES	Total Number of Containers	Laboratory Note Number	
					TPH - HClD	TPH - Diesel & Oil	BTEX	VOC 8260CL	Semivol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8084	MTCA 5 Metals	Pb				Asbestos - PLM
1. GCB-6-4	4	8:18	S		X	X	X											
2. GCB-6-8	8	8:45	S		X	X	X											
3. GCB-7-5	5	9:57	S		X	X	X											
4. GCB-7-7	7	10:13	S		X	X	X											
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		
11.																		
12.																		
13.																		
14.																		
15.																		
16.																		
17.																		
18.																		

RELINQUISHED BY (Signature): [Signature] **DATE/TIME:** 9/22/17 10:30 **RECEIVED BY (Signature):** [Signature] **DATE/TIME:** 10/30 2:25
RELINQUISHED BY (Signature): [Signature] **DATE/TIME:** 9/22/17 10:30 **RECEIVED BY (Signature):** [Signature] **DATE/TIME:** 10/30 2:25
LABORATORY NOTES: Note expedited TAT
Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST CHEMISTRY LABORATORY

GeoConsulting, Inc
PROJECT SUNNYS DELI MART
PROJECT #SEN01-1706
Renton, Washington

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

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

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	111
LCS	9/22/2017	9/22/2017	97%	98%	105%	98%	104%	106
LCSD	9/22/2017	9/22/2017	101%	97%	102%	95%	---	101
GCB-6-4	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	109
GCB-6-8	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	114
GCB-7-5	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	111
GCB-7-7	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	113
GCB-7-7 Duplicate	9/22/2017	9/22/2017	nd	nd	nd	nd	nd	113
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 (Bromofluorobenzene) & LCS : 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

GeoConsulting, Inc
PROJECT SUNNYS DELI MART
PROJECT #SEN01-1706
Renton, Washington

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

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	9/22/2017	9/22/2017	92	nd	nd
LCS	9/22/2017	9/22/2017	87	89%	---
GCB-6-4	9/22/2017	9/22/2017	86	nd	nd
GCB-6-4 Duplicate	9/22/2017	9/22/2017	90	nd	nd
GCB-6-8	9/22/2017	9/22/2017	88	nd	nd
GCB-7-5	9/22/2017	9/22/2017	92	nd	nd
GCB-7-7	9/22/2017	9/22/2017	78	nd	nd
Reporting Limits				50	100

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 27, 2017

Jim Coppernoll
GeoConsulting, Inc.
15306 Plainview Place
Monroe, WA 98272

Re: Analytical Data for Project SEN01-1706
Laboratory Reference No. 1709-305

Dear Jim:

Enclosed are the analytical results and associated quality control data for samples submitted on September 25, 2017.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB', with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 27, 2017
Samples Submitted: September 25, 2017
Laboratory Reference: 1709-305
Project: SEN01-1706

Case Narrative

Samples were collected on September 25, 2017 and received by the laboratory on September 25, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: September 27, 2017
 Samples Submitted: September 25, 2017
 Laboratory Reference: 1709-305
 Project: SEN01-1706

NWTPH-Gx/BTEX

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-8					
Laboratory ID:	09-305-01					
Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Toluene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
o-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Gasoline	ND	100	NWTPH-Gx	9-26-17	9-26-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	76	61-118				
Client ID:	MW-9					
Laboratory ID:	09-305-02					
Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Toluene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
o-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Gasoline	ND	100	NWTPH-Gx	9-26-17	9-26-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	74	61-118				



Date of Report: September 27, 2017
 Samples Submitted: September 25, 2017
 Laboratory Reference: 1709-305
 Project: SEN01-1706

NWTPH-Gx/BTEX QUALITY CONTROL

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0926W1					
Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Toluene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Ethyl Benzene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
m,p-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
o-Xylene	ND	1.0	EPA 8021B	9-26-17	9-26-17	
Gasoline	ND	100	NWTPH-Gx	9-26-17	9-26-17	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	84	61-118				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-298-03							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene				83	74	61-118		

MATRIX SPIKES

Laboratory ID:	09-298-03									
	MS	MSD	MS	MSD		MS	MSD			
Benzene	56.4	54.7	50.0	50.0	ND	113	109	80-120	3	13
Toluene	56.5	54.9	50.0	50.0	ND	113	110	81-115	3	14
Ethyl Benzene	56.5	55.2	50.0	50.0	ND	113	110	81-114	2	12
m,p-Xylene	55.1	53.8	50.0	50.0	ND	110	108	81-114	2	13
o-Xylene	55.1	53.5	50.0	50.0	ND	110	107	81-113	3	11
Surrogate:										
Fluorobenzene						97	97	61-118		



Date of Report: September 27, 2017
 Samples Submitted: September 25, 2017
 Laboratory Reference: 1709-305
 Project: SEN01-1706

NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-8						
Laboratory ID:	09-305-01					
Diesel Range Organics	ND	0.26	NWTPH-Dx	9-26-17	9-26-17	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	9-26-17	9-26-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				
Client ID: MW-9						
Laboratory ID:	09-305-02					
Diesel Range Organics	ND	0.27	NWTPH-Dx	9-26-17	9-26-17	
Lube Oil Range Organics	ND	0.43	NWTPH-Dx	9-26-17	9-26-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				



Date of Report: September 27, 2017
 Samples Submitted: September 25, 2017
 Laboratory Reference: 1709-305
 Project: SEN01-1706

**NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0926W2					
Diesel Range Organics	ND	0.25	NWTPH-Dx	9-26-17	9-26-17	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	9-26-17	9-26-17	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-305-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	
Surrogate:								
o-Terphenyl				84	82	50-150		





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference





**OnSite
Environmental Inc.**

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Turnaround Request
(in working days)

(Check One)

☐ Same Day

☒ 2 Days

☐ 3 Days

☐ Standard (7 Days)
(TPH analysis 5 Days)

☐ (other) _____

Laboratory Number: **09-305**

Company: Geo Consulting Inc.
Project Number: SEN01-1706
Project Name: Sunys Deli
Project Manager: Jim Copperrill
Sampled by: Jim Copperrill

Lab ID: 1 Sample Identification: MW-8
2 MW-9
Date Sampled: 9/25/17 Time Sampled: 12:00 Matrix: W
9/25/17 11:40 W
9/25/17 12:00 W

Number of Containers													
NWTPH-HCID													
NWTPH-Gx/BTEX													
NWTPH-Gx													
NWTPH-Dx (☐ Acid / SG Clean-up)													
Volatiles 8260C													
Halogenated Volatiles 8260C													
EDB EPA 8011 (Waters Only)													
Semivolatiles 8270D/SIM (with low-level PAHs)													
PAHs 8270D/SIM (low-level)													
PCBs 8082A													
Organochlorine Pesticides 8081B													
Organophosphorus Pesticides 8270D/SIM													
Chlorinated Acid Herbicides 8151A													
Total RCRA Metals													
Total MTCA Metals													
TCLP Metals													
HEM (oil and grease) 1664A													
% Moisture													

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>Geo Consulting Inc.</u>	<u>9/25/17</u>	<u>1315</u>	
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date	Reviewed/Date	Data Package: Standard ☐ Level III ☐ Level IV ☐		
		Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐		