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Groundwater Monitoring Report
First Quarter, 2018

Red Lion Hotel

8402 South Hosmer Street
Tacoma, WA 98444

Prepared for

Kang's Properties, Llc.
8402 South Hosmer Street
Tacoma, WA 98444

Prepared by

Envitech
16541 Redmond Way #358C
Redmond, WA 98052

March 10, 2018

Project No. 03170103-1

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March 10, 2018

Project number 03170103-1

Mr. Adam Harris
Department of Ecology
Southwest Regional Office
300 Desmond Drive SE
Lacey, WA 98504

Cc: Mr. Ryan Kang/ Red Lion Hotel
Mr. Paul Sandhu/ Red Lion Hotel

Subject: Groundwater Monitoring Report, 1st Quarter, 2018
Red Lion Hotel – Hosmer Street
8402 South Hosmer Street, Tacoma, WA 98444
Facility Site ID: 23307, Cleanup Site ID: 13206, VCP ID: SW1575

Dear Mr. Adam Harris:

On behalf of the Kang's Properties, Llc, Envitech is submitting the attached Groundwater Monitoring Report, 1st Quarter, 2018 for the above-referenced property (the Subject Property). This report describes the results of the groundwater monitoring conducted during 2018 at the Red Lion Motel located at 8402 South Hosmer Street, Tacoma, WA 98444.

If you have any questions or require further clarification of the report findings, please contact the undersigned at your convenience. Thank you for the opportunity to be of service to you.

Yours very truly,

Jake S. Lee, Ph.D.
President
Envitech

Seung K. Chung, P.E.
Senior Environmental Consultant
Envitech

SEUNG K. CHUNG
STATE OF WASHINGTON
16389
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 3/11/2018

ICC Certified Washington State Site Assessor (5264460-U7)
ICC Certified UST Decommissioning (5264460-U2)
ICC Certified UST Installation/Retrofitting (5264460-U5)

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1. INTRODUCTION

Envitech was retained by Kang's Properties, Llc. to prepare this *Groundwater Monitoring Report, 1st Quarter, 2018* conducted on March 6, 2018 for the Red Lion Hotel located at 8402 South Hosmer Street, Tacoma, WA 98444 (the Sit, Figure 1). This report summarizes groundwater monitoring and sampling activities and analytical results during the 1st Quarter, 2018 monitoring period.

1.1. OBJECTIVES AND SCOPE OF WORK

The objective of the Quarterly Groundwater Monitoring performed by Envitech was to confirm that the Site cleanup has been effective by collecting and analyzing quarterly groundwater samples for a period of one year. The groundwater monitoring data collected by Envitech will be used in a future request to Ecology for a No Further Action (NFA) letter for the Site.

The Scope of work consisted of the following:

- Prepared Quarterly Groundwater Monitoring Plan for the Site,
- Conducted Quarterly Groundwater Monitoring at five (5) monitoring wells for one year,
- Conducted laboratory analyses of groundwater samples for Gasoline-range hydrocarbons and BTEX in five (5) monitoring wells,
- Evaluated analytical results against Washington State MTCA Method A groundwater cleanup levels.
- Prepared this report which summarizes the findings.

2. BACKGROUND

2.1. SITE LOCATION

The address of the Subject Property is 8402 South Hosmer St, Tacoma, WA 98444. The center of the Subject Property is located at Latitude 47.181000 and Longitude 122.463200 (Figure 1. Site Location Map).

2.2. LEGAL DESCRIPTION

The legal description of the Subject Property is:

Section 31 Township 20 Range 03 Quarter 11 : THAT POR OF SE OF NE LY SELY OF STATE HWY # 1 S OF 84TH ST & N OF ACCESS RD TO SPRAGUE AVE & LESS SPRAGUE AVE

2.3. DESCRIPTION OF THE PROPERTY

The Subject Property is a hotel located on the southwest corner of the intersection at South Hosmer Street and South 84th Street in Tacoma, Pierce County, Washington. Interstate-5 adjoins to the west and Tacoma Mall Boulevard South is one block northwest. A small lake is located across South Hosmer Street approximately 100 yards to the east.

The Subject Property consists of a parcel of commercial land with a reported total area of an approximately 3.73 acres. The parcel of land is improved by an approximately 82,244 square feet, four story hotel building known as Red Lion Hotel.

The covered entryway is located on the southeast corner of the facility- leading into the hotel lobby. The hotel facility is comprised of eight suites, thirty king rooms, seventy seven double queen rooms, two mini-suites, and two handicap rooms – for a total of 119 guest rooms. All of the guest rooms include a microwave, coffee pot, miniature refrigerator and wireless internet. Amenities include a business center, a meeting room, a pool and spa, fitness center, continental breakfast, and access to a coin operated laundry room. The southwest portion of the building houses the two-level “casino building”. The entire property is asphalt-paved and the majority of the guest parking is located on the south and east side of the building. The general layout of the subject site and immediate vicinity is shown in Figure 2. Site Vicinity Map. The property layout is presented in Figure 3. Site Plan.

2.4. SITE HISTORY AND BACKGROUND

The north end of the Subject Site was improved with a motel in the mid-1960s and a gasoline service station was built about the same time along the eastern margin near the southeast center of the Subject Site. The gasoline service station was demolished about

1985 and that portion of the Site has been part of the parking area for the motel since that time.

Phase I ESA conducted by Aerotech Environmental Consulting, Inc. dated Nov 4, 2011:

The study indicated that the Subject Property was originally vacant, undeveloped land. In 1964, two buildings were constructed on the northern portion of the property. The buildings housed a motel known as Sherwood Inn and has occupied a variety of businesses including: coffee shops, hair salons, restaurants, barber shops, and a casino. In 1963, construction began for a gasoline service station on the southeastern corner of the Property. The gasoline service station was demolished in 1985. No documentation was available from the City of Tacoma, Tacoma Pierce County Health Department, or Washington State Department of Ecology, relating to an underground storage tank decommissioning or removal. Aerotech recommended additional investigation.

Phase II ESA conducted by Envitech, Llc. dated December 22, 2011:

Envitech performed a ground penetrating radar (GPR) survey to locate any remaining USTs and associated structures in the subsurface. The GPR survey did not indicate the USTs but identified a former UST excavation pit located at the southwest corner of the property entryway. The size of the pit was approximately 25 feet by 43 feet.

Envitech advanced four soil borings in the area of the former UST excavation and one boring along the southern margin of the Site to depths of 9 to 15 feet below ground surface. A total of five soil samples were analyzed for gasoline-range total petroleum hydrocarbons (tph), BTEX, diesel-range tph, and lube oil-range tph. The lab results indicated gasoline-range tph at 7,400 and 6,700 mg/kg at 14 feet bgs in the eastern portion of the former UST excavation. The Department of Ecology Method A soil cleanup level for unrestricted land use for gasoline-range tph with benzene present is 30 mg/kg.

Phase II ESA conducted by Encon Solutions, Inc. dated June 14, 2012:

Encon advanced a total of 4 borings to depths of 20 to 35 feet bgs: one boring in the eastern portion of the former UST excavation, two borings on the south of the former UST excavation, and one boring on the north of the former UST excavation. A total of four soil samples and one groundwater sample were analyzed for gasoline-range tph and BTEX. Lab result indicated gasoline-range tph and benzene at 43 and 0.15 mg/kg, respectively, at 15 feet bgs on the south of the former UST excavation. Benzene was detected at 0.055 mg/kg at 20 feet bgs in the eastern portion of the former UST excavation. The Department of Ecology Method A soil cleanup level for unrestricted land use for benzene is 0.03 mg/kg.

Phase II ESA ducted by Envitech dated February 9, 2017:

A total of nine (9) soil borings were advanced near the former UST excavation. Ten (10) soil samples and one (1) groundwater samples were analyzed for gasoline-range tph, BTEX and lead. The laboratory results indicated that gasoline-range petroleum hydrocarbons and BTEX were identified at the soil and groundwater samples obtained from the north of the former UST excavation at concentrations above the Method A cleanup levels.

Based on the results of this investigation, the gasoline impacts to the subsurface area are the result of historical operation of a gasoline service station at the Subject Property. The low ratio of BT/EX is consistent with an old release such as would be expected given the site history. The value of BT/EX decreases with time as a result of the higher solubility of benzene and toluene to water. Degradation of benzene and toluene with time also results in a reduction of the BT/EX ratio.

Two soil borings (B3 and B5) were advanced at and adjacent to the previous boring location S2 and S3. No contamination was observed in these areas indicating that a natural attenuation is occurring at the Site.

Soil remediation and groundwater monitoring wells installation by Envitech in May 2017:

Excavation of petroleum-contaminated soils (PCS) in the vicinity of former UST was initiated on April 27, and completed on May 3, 2017. Excavation area is a southeastern portion of the parking lot within the Subject Property, with surface area of 16' x 21'. A volume of approximately 230 cubic yards of soil was excavated, including roughly 175 cubic yards of overburden soils and 55 cubic yards of soils impacted by gasoline. PCS were excavated from a depth of 13 feet bgs up to 22 feet bgs. During the excavation activity, soils were screened with field observation and VOC monitoring that was performed by using a MiniRae photoionization detector (PID). Excavated PCS were separately stockpiled on-site. The stockpiles were covered with plastic sheets. Seven (7) confirmatory soil samples were obtained from the excavation pit and stockpiled soils. Concentrations for all confirmatory soil samples were below laboratory detection limits.

A total of 75 tons of PCS were delivered to CEMEX in Everett, Washington for the final disposal by incineration. CEMEX was permitted to dispose of PCS. Following the receipt of analytical laboratory test results, special waste permit was accepted.

Oxygen Releasing Compound (ORC) chemical was applied to the excavation pit prior to backfill. Approximately 1,500 pound of ORC advanced (Regenesis) was mixed with clean backfill material and the OCR amended backfill material was placed into the bottom of the excavation pit. The ORC chemically reacts with groundwater to slowly release oxygen over time for the treatment of petroleum products through an aerobic degradation

process by indigenous microorganisms eating petroleum products. After the ORC amendment, clean soil was backfilled and compacted.

Five groundwater monitoring wells were installed around the excavation pit on May 15 and 16, 2017. Envitech contracted Holocene Drilling of Puyallup, Washington to perform hollow stem auger drilling activities. All wells were constructed with 2-inch diameter schedule 40 PVC pipes. MW 1 through MW3 contained 15-foot-long section of PVC well screen, placed to a depth of 35 feet. MW4 through MW5 contained 20-foot-long section of PCV well screen, placed to a depth of 40 feet. The well screens were placed to cross the water table zone. The annular space between the well screen and borehole well was backfilled with a select sand pack. A bentonite seal was placed above the sand pack to one foot below the ground surface. The top of each well was completed with a flush-mount steel monument cover, which was cemented in place

3. FIELD ACTIVITIES

This section describes the sample collection methods and field observations during field activities. Field activities included gauging and sampling of five (5) groundwater monitoring wells (MW1 through MW5). Monitoring well locations are illustrated in Figure 5.

The monitoring wells were sampled on March 6, 2018.

3.1. WATER LEVEL MEASUREMENT

Prior to any well purging or sampling, a complete round of water level measurements was conducted using a water level meter. The water level meter consists of a liquid sensor attached to a measuring tape that is lowered down into the well until water is encountered. A buzzer sounds when the probe reaches groundwater and the depth is read from the tape relative to high north in the top of the well casing (TC). Water level measurements for each well were recorded in the field logbook.

Groundwater elevations (Table 1) were calculated from the surveyed TOC elevations. Using the calculated groundwater elevations, a groundwater elevation contour map was prepared (Figure 5).

3.2. WELL PURGING

Prior to collecting sample, each well was purged to ensure that representative samples of the surrounding formation waters were collected form chemical analysis. The well purging consisted of removing approximately three to six casing volumes of water from the well prior to sampling. Casing volumes were calculated by first measuring the depth to groundwater and then measuring the total depth of the well. The resulting height of the water column was then multiplied by a conversion factor to determine the number of gallons in one casing volume.

A hand bailer was used to purge the monitoring wells. Purged water was stored in 55-gallon drum. Its contents will be disposed of at an approved disposal facility, based on the groundwater analytical results presented in Section 4.

During well purging, the groundwater physical parameters of temperature, dissolved oxygen, specific conductivity and oxygen reduction potential were collected using an YSI multimeter. Stabilization of these parameters serves as an indicator of adequate purging in preparation for collection of a representative groundwater sample. Table 2 summarizes the final readings for each parameter prior to sample collection.

No odors or sheen was observed in purge water from any of the monitoring wells.

3.3. GROUNDWATER SAMPLE COLLECTION

Once at least three well volumes had been purged and the physical parameters described in Section 3.2 stabilized, one groundwater sample was collected from each of the five (5) monitoring wells. Samples were transferred directly from the pre-decontaminated, disposable polyethylene bailers into laboratory-prepared sample containers and immediately placed on ice in a cooler. At the end of each day's sampling activities, samples were transferred to Accu Laboratory, Kirkland, a Washington State-Certified laboratory, for analysis.

3.4. LABORATORY ANALYSES

The chemical testing was designed to detect the contaminants suspected to be present in the samples collected. The testing plan included tests which provide quality assurance (QA) and techniques that provide quality control (QC) over the chemical analysis. A completed chain of custody record accompanied each sample shipment to the analytical laboratory. Chain of custody records provide written documentation regarding sample collection and handling, identify the persons involved in the chain of sample possession, and a written record of requested analytical parameters.

The soil samples were analyzed for the presence of petroleum contaminants – total petroleum hydrocarbons-gasoline, benzene, toluene, ethylbenzene, and xylene (BTEX) via NWTPH-Gx/BTEX and lead via EPA 6020B/EPA 3010A.

3.5. Field Quality Assurance/ Quality Control Procedures

Field quality assurance and quality control procedures included the following actions that minimized the potential for cross-contamination:

- The well purging equipment was washed in a solution of Alconox and clean tap water, rinsed in clean tap water, then rinsed in distilled water between each sample.
- A new pre-decontaminated polyethylene bailer was used to collect each groundwater sample.
- Clean, laboratory-prepared containers were used for each sample

4. Summary of Analytical Results

A total five groundwater samples were collected from five monitoring wells to obtain updated chemical data on groundwater quality at the Subject Property. These samples were analyzed by Accu Laboratory, Kirkland, a Washington State certified laboratory for the following parameters:

- Total petroleum hydrocarbons-gasoline and BTEX using NWTPH-Gx/BTEX,
- Lead using EPA 6020B/3010A.

The result of the chemical analyses are presented in Table 3. The laboratory analytical data reports are presented in Appendix B.

Laboratory analysis of the groundwater samples indicates that all analytical results were below laboratory detection limits.

5. Groundwater Elevation Data

In order to obtain an accurate “snapshot” of groundwater elevations and flow at the Subject Property, prior to well purging, groundwater depths were measured in all five (5)

wells within a timeframe of 1 hour. Table 1 summarizes the data obtained from this round of groundwater level measurements.

The groundwater elevation contours are plotted on Figure 6, which present groundwater flow counters. Based on available data, groundwater flow direction across the Site during the 1st Quarter, 2018 event was observed to be to the west.

6. CONCLUSIONS

The direction of groundwater flow is generally toward the west in the area of the former UST excavation.

No detectable concentrations of gasoline and lead were present in groundwater downgradient of the former UST excavation.

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FIGURES

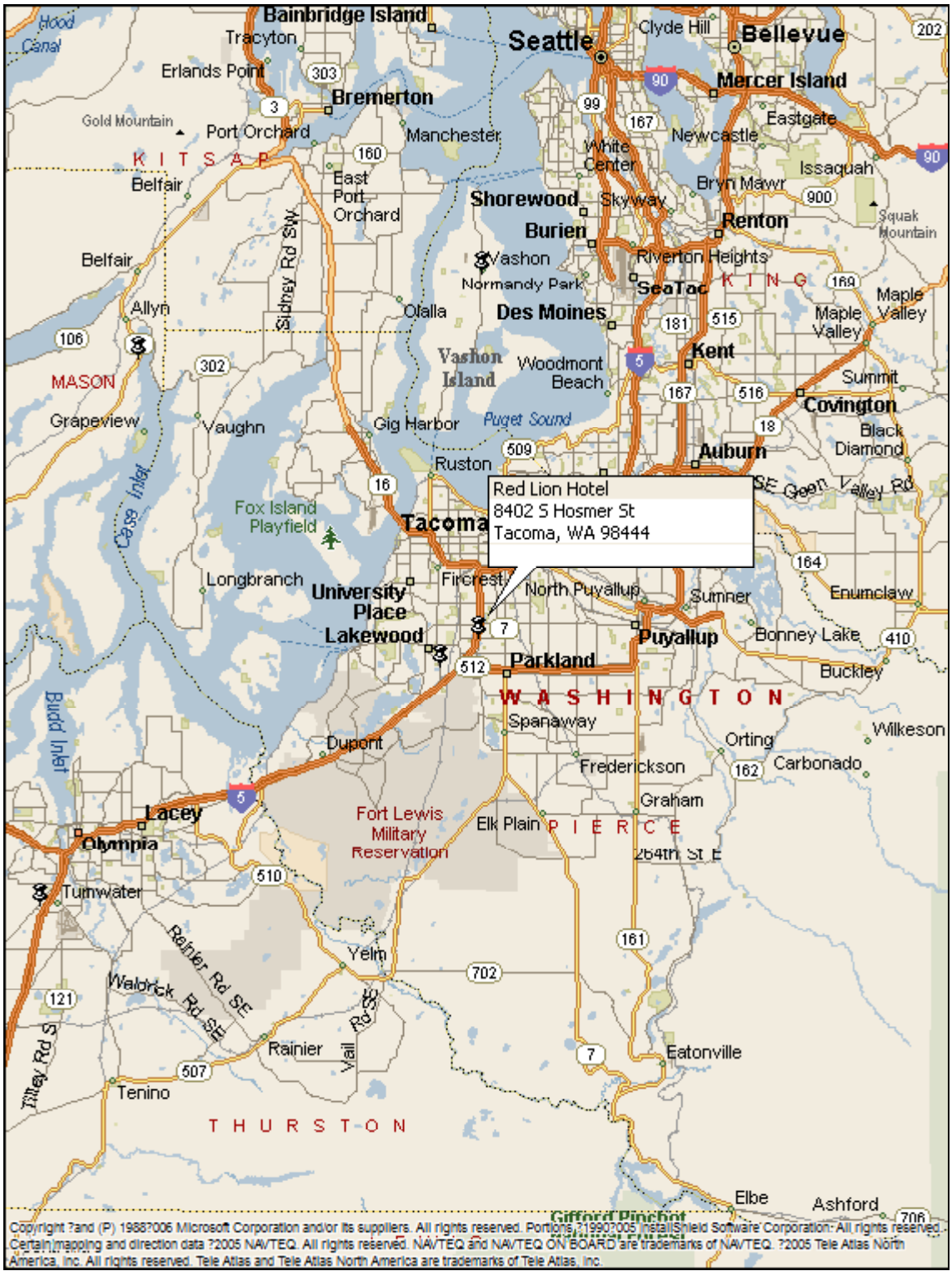

Figure 1. Site Location Map

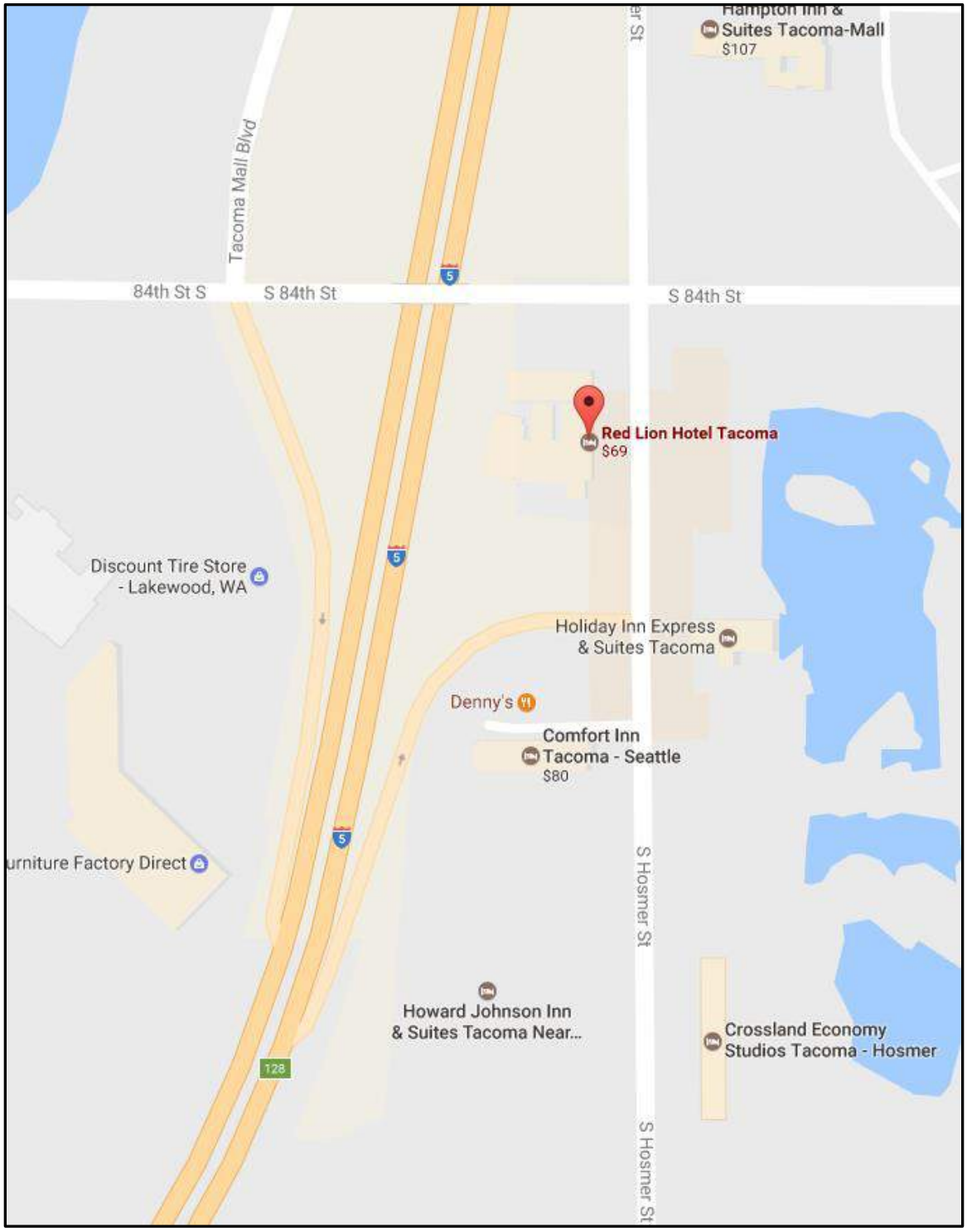

Figure 2. Site Vicinity Map

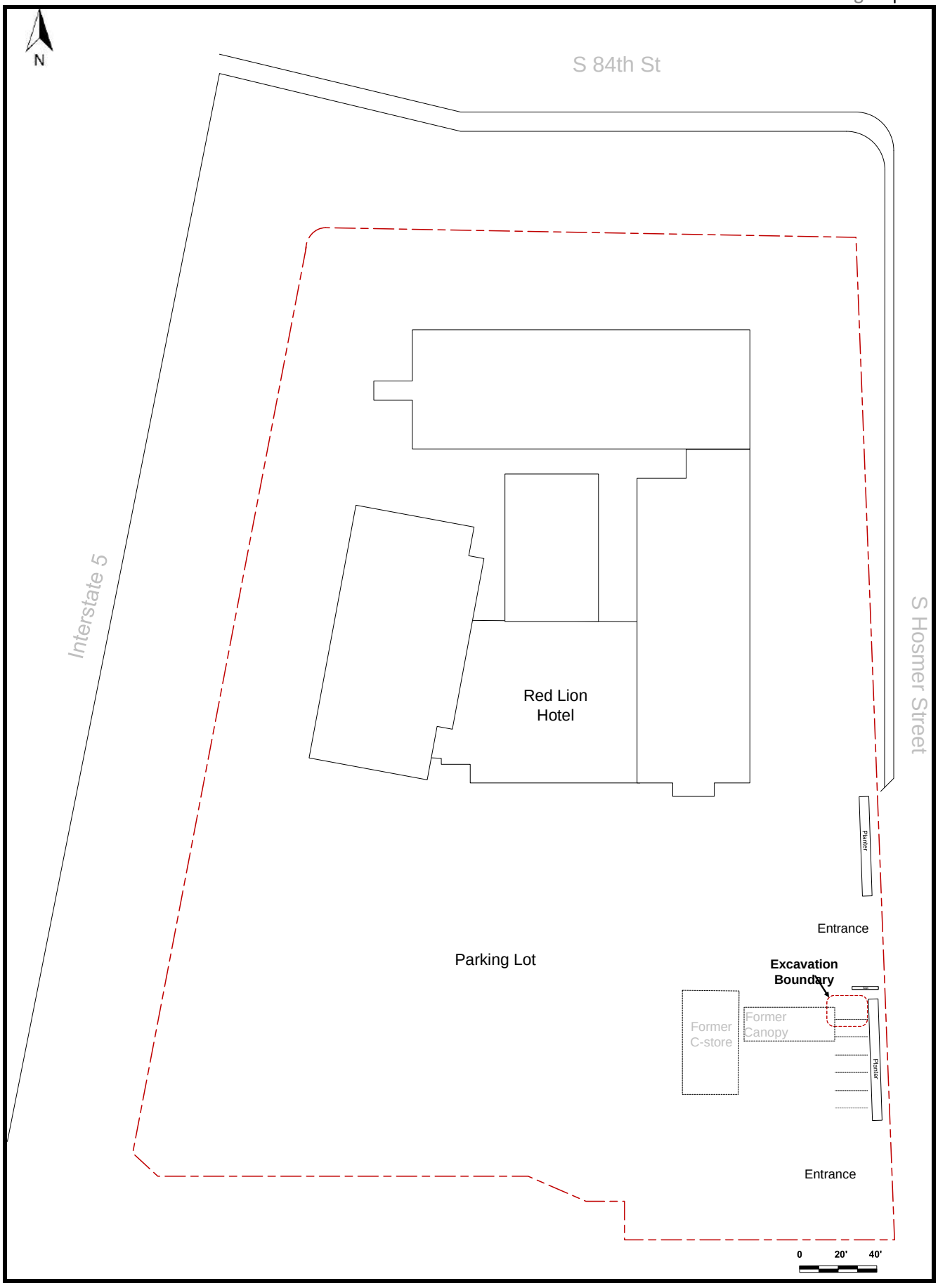

Figure 3. Site Plan

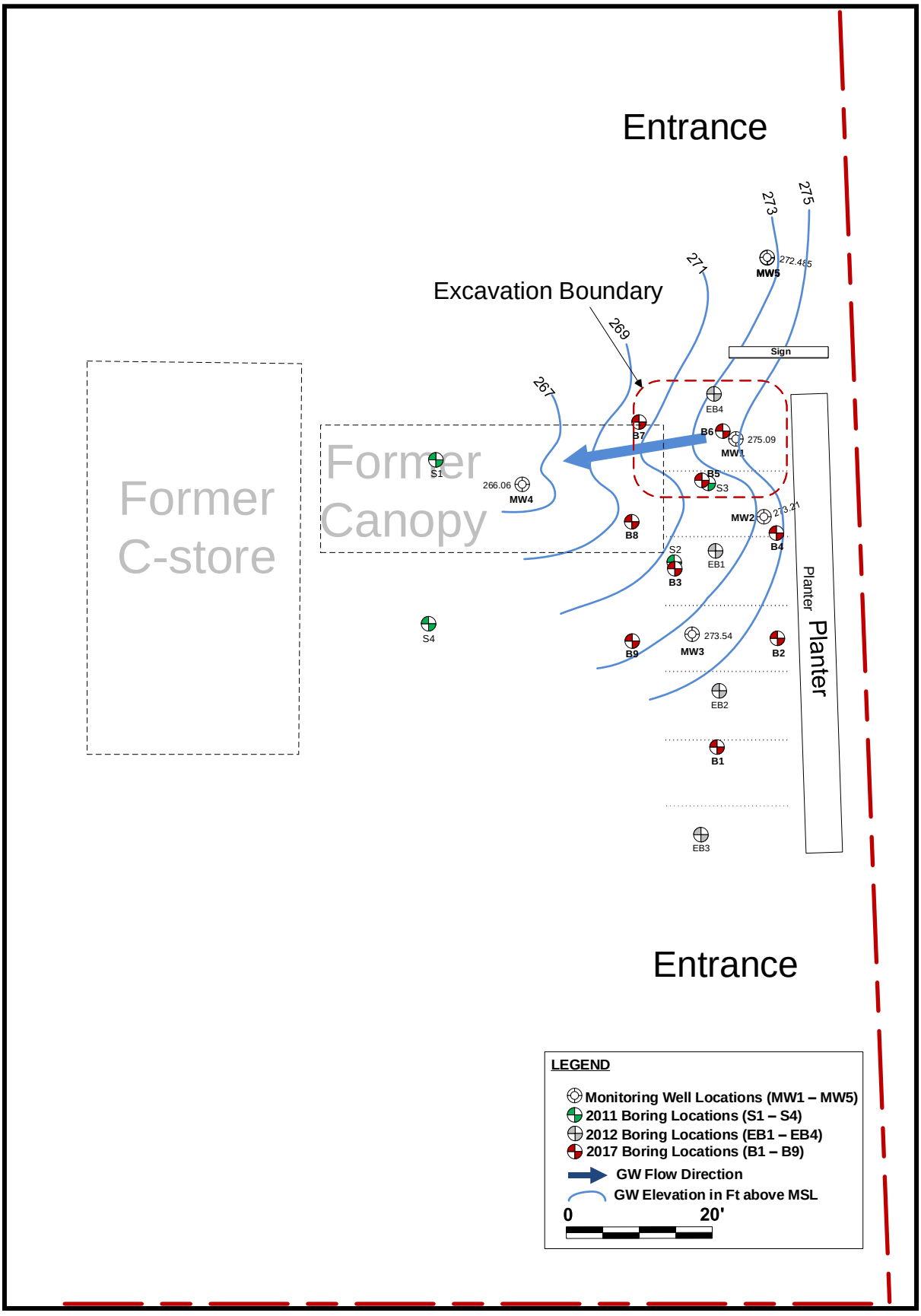

Figure 4. Groundwater Contours - 3rd Quarter, 2017

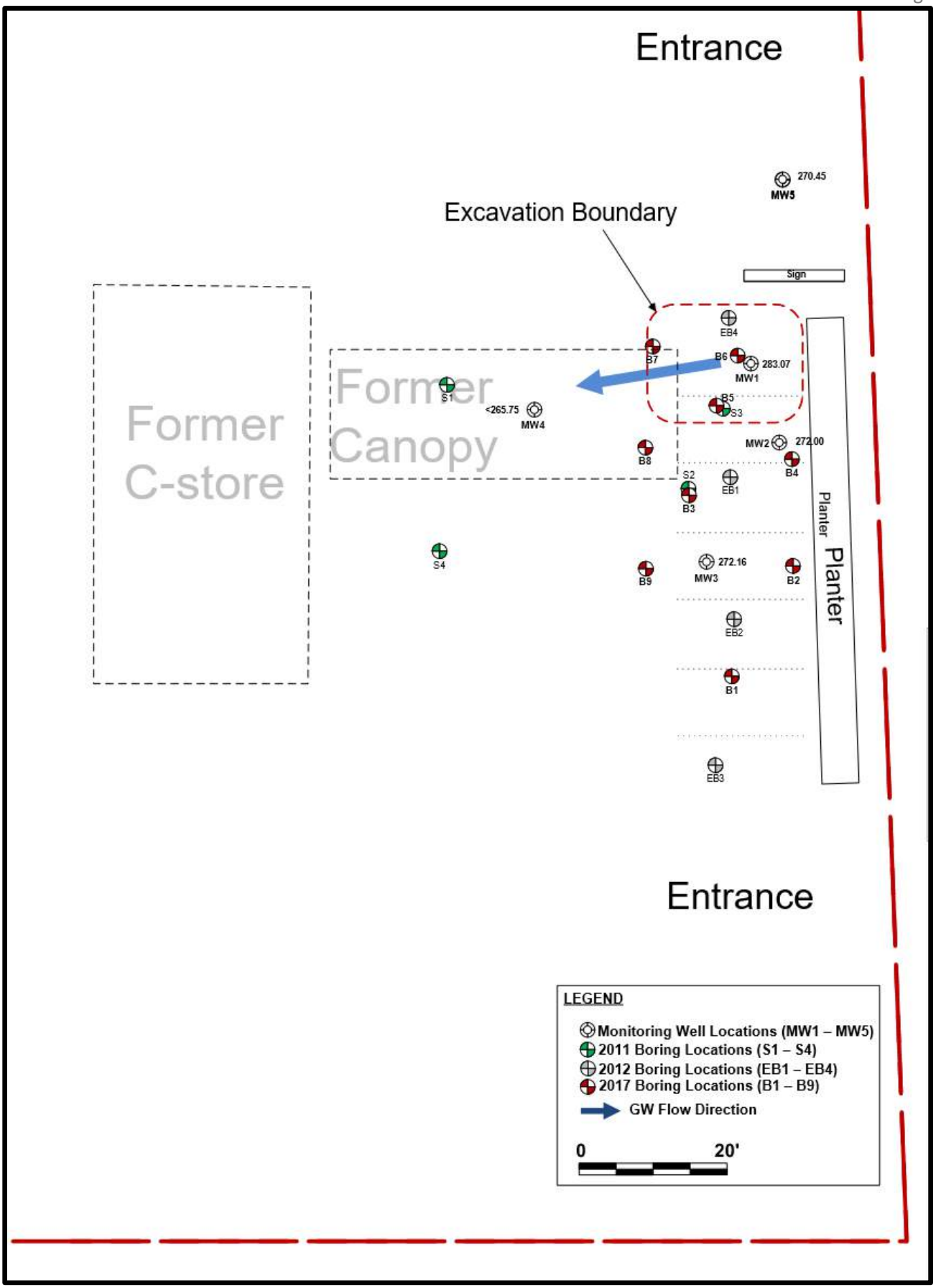

Figure 5. Groundwater Flow – 4th Quarter, 2017

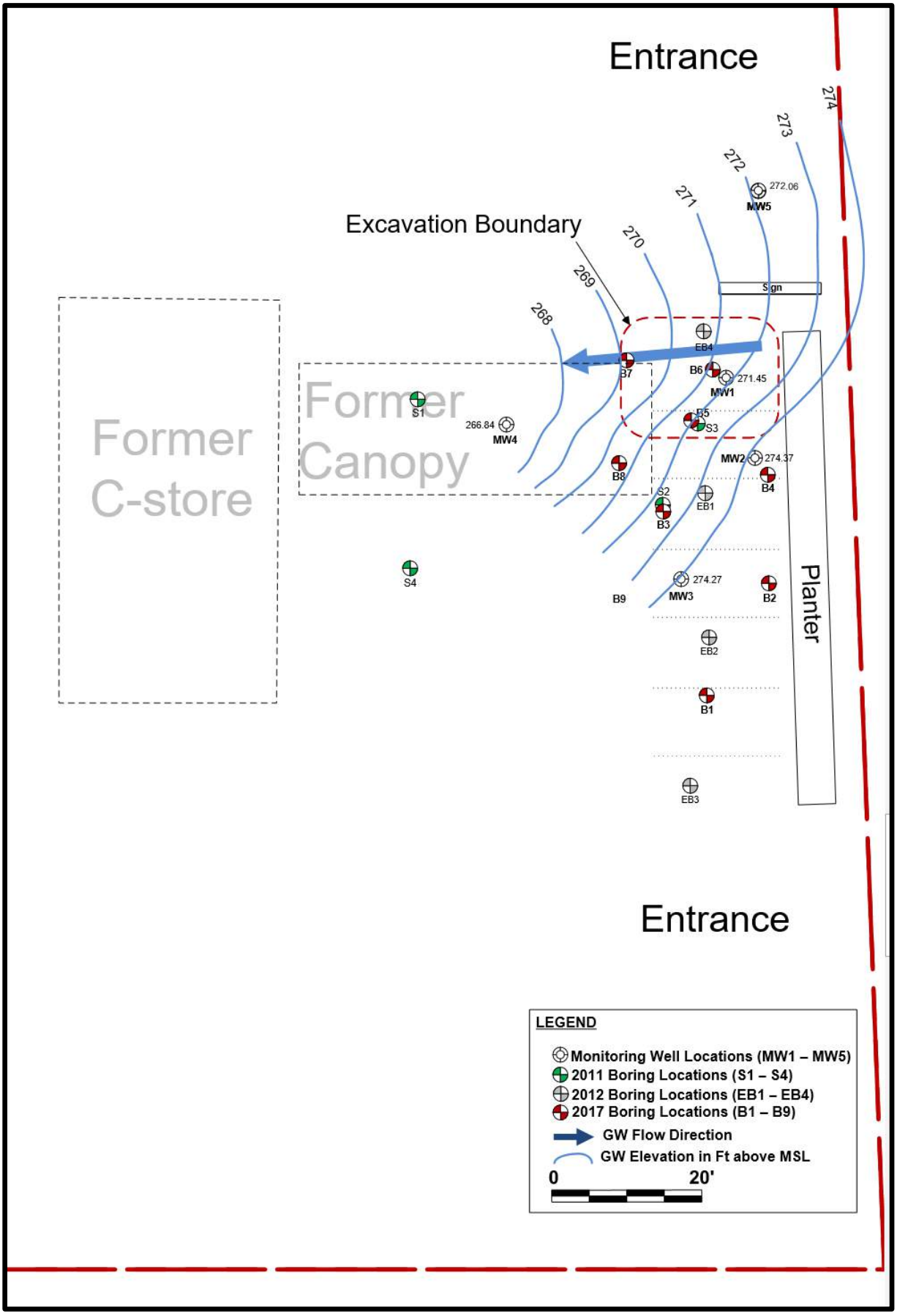

Figure 6. Groundwater Flow – 1st Quarter, 2018

TABLES

Table 1 Summary of Groundwater Level Measurements

Well No.	Date	TOC	DTW	GWE
		(Feet)	(Feet)	(Feet-amsl)
MW1	08/24/17	303.50	28.41	275.09
	12/07/17	303.50	20.43	283.07
	03/06/18	303.50	31.95	271.45
MW2	08/24/17	303.25	30.04	273.21
	12/07/17	303.25	31.25	272.00
	03/06/18	303.25	28.88	274.37
MW3	08/24/17	303.25	29.71	273.54
	12/07/17	303.25	31.09	272.16
	03/06/18	303.25	28.88	274.37
MW4	08/24/17	305.00	38.94	266.06
	12/07/17	305.00	>39.25*	<265.75
	03/06/18	305.00	36.16	266.84
MW5	08/24/17	304.38	31.89	272.49
	12/07/17	304.38	33.93	270.45
	03/06/18	304.38	32.32	272.06

Abbreviations and Notes
TOC = Top of Casing Elevation
DTW = Depth to Groundwater
GWE = Groundwater Elevation
Feet-amsl = Feet above mean sea level
* = Groundwater was not encountered to a depth of 39.25 ft.

Table 2. Summary of Well Parameter Readings

Well No.	Date	Temp	DO	DO	SPC	PH	ORP
		°C	%	mg/L	mS/Cm	-	mV
MW1	08/24/17	16.6	94.6	9.21	0.562	7.82	216.9
	12/07/17	15.1	109.5	11.01	0.372	6.63	178.2
	03/05/18	15.1	93.1	9.34	0.362	6.89	195.0
MW2	08/24/17	16.5	93.6	9.10	0.457	7.35	235.9
	12/07/17	13.3	80.0	8.29	0.440	6.97	165.3
	03/05/18	15.9	76.5	7.55	0.462	6.79	204.4
MW3	08/24/17	16.8	87.5	8.46	0.416	7.02	266.3
	12/07/17	14.3	92.7	9.50	0.360	6.60	187.1
	03/05/18	15.6	84.0	8.31	0.449	6.62	233.3
MW4	08/24/17	19.7	87.1	8.86	0.549	7.60	233.3
	12/07/17	-	-	-	-	-	-
	03/05/18	15.6	82.3	8.10	0.390	6.88	203.2
MW5	08/24/17	16.3	92.2	9.01	0.365	7.43	243.5
	12/07/17	13.8	85.9	8.78	0.440	6.93	195.4
	03/05/18	15.9	81.3	8.08	0.315	6.87	138.4

Abbreviations and Notes
Temp = Temperature
DO = Dissolved Oxygen
SPC = Specific Conductivity
ORP = Oxidation Reduction Potential
- = not measured

Table 3. Summary of Groundwater Analytical Results

Well No.	Date	B	T	E	X	Tph-Gas	Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW1	08/24/17	<1.0	<1.0	<1.0	<2.0	<250	-
	12/07/17	<1.0	<1.0	<1.0	<2.0	<250	<1.0
	03/05/18	<1.0	<1.0	<1.0	<2.0	<250	<1.0
MW2	08/24/17	<1.0	<1.0	<1.0	<2.0	<250	-
	12/07/17	<1.0	<1.0	<1.0	<2.0	<250	<1.0
	03/05/18	<1.0	<1.0	<1.0	<2.0	<250	<1.0
MW3	08/24/17	<1.0	<1.0	<1.0	<2.0	<250	-
	12/07/17	<1.0	<1.0	<1.0	<2.0	<250	<1.0
	03/05/18	<1.0	<1.0	<1.0	<2.0	<250	<1.0
MW4	08/24/17	<1.0	<1.0	<1.0	<2.0	<250	-
	12/07/17	-	-	-	-	-	-
	03/05/18	<1.0	<1.0	<1.0	<2.0	<250	<1.0
MW5	08/24/17	<1.0	<1.0	<1.0	<2.0	<250	-
	12/07/17	<1.0	<1.0	<1.0	<2.0	<250	<1.0
	03/05/18	<1.0	<1.0	<1.0	<2.0	<250	<1.0
STD		3	1,000	700	1,00	800/ 1,000	15

Abbreviations and Notes
B = Benzene
T = Toluene
E = Ethyl Benzene
X = Xylene
Tph-Gas = Gasoline-range total petroleum hydrocarbons
STD = Method A Ground Water Cleanup Levels (Table 720-1)
- = Not measured

APPENDICES

APPENDIX A. METHOD A CLEANUP LEVELS

WAC 173-340-900 Tables.

Table 720-1
Method A Cleanup Levels for Ground Water.[a]

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	5 ug/liter[b]
Benzene	71-43-2	5 ug/liter[c]
Benzo(a)pyrene	50-32-8	0.1 ug/liter[d]
Cadmium	7440-43-9	5 ug/liter[e]
Chromium (Total)	7440-47-3	50 ug/liter[f]
DDT	50-29-3	0.3 ug/liter[g]
1,2 Dichloroethane (EDC)	107-06-2	5 ug/liter[h]
Ethylbenzene	100-41-4	700 ug/liter[i]
Ethylene dibromide (EDB)	106-93-4	0.01 ug/liter[j]
Gross Alpha Particle Activity		15 pCi/liter[k]
Gross Beta Particle Activity		4 mrem/yr[l]
Lead	7439-92-1	15 ug/liter[m]
Lindane	58-89-9	0.2 ug/liter[n]
Methylene chloride	75-09-2	5 ug/liter[o]
Mercury	7439-97-6	2 ug/liter[p]
MTBE	1634-04-4	20 ug/liter[q]
Naphthalenes	91-20-3	160 ug/liter[r]
PAHs (carcinogenic)		See benzo(a)pyrene[d]
PCB mixtures		0.1 ug/liter[s]
Radium 226 and 228		5 pCi/liter[t]
Radium 226		3 pCi/liter[u]
Tetrachloroethylene	127-18-4	5 ug/liter[v]
Toluene	108-88-3	1,000 ug/liter[w]
Total Petroleum Hydrocarbons[x]		
[Note: Must also test for and meet cleanup levels for other petroleum components--see footnotes!]		
Gasoline Range Organics		
Benzene present in ground water		800 ug/liter
No detectable benzene in ground water		1,000 ug/liter
Diesel Range Organics		500 ug/liter
Heavy Oils		500 ug/liter
Mineral Oil		500 ug/liter
1,1,1 Trichloroethane	71-55-6	200 ug/liter[y]
Trichloroethylene	79-01-6	5 ug/liter[z]
Vinyl chloride	75-01-4	0.2 ug/liter[aa]
Xylenes	1330-20-7	1,000 ug/liter[bb]

Footnotes:

a **Caution on misusing this table.** This table has been developed for specific purposes. It is intended to provide conservative cleanup levels for drinking water beneficial uses at sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. This table may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in this table should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in this table do not necessarily mean the ground water must be restored to those levels at all sites. The level of restoration depends on the remedy selected under WAC 173-340-350 through 173-340-390.

b **Arsenic.** Cleanup level based on background concentrations for state of Washington.

c **Benzene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

d **Benzo(a)pyrene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61), adjusted to a 1 x 10^{-5} risk. If other carcinogenic PAHs are suspected of being present at the site, test for them and use this value as the total concentration that all carcinogenic PAHs must meet using the toxicity equivalency methodology in WAC 173-340-708(8).

e **Cadmium.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.62).

f **Chromium (Total).** Cleanup level based on concentration derived using Equation 720-1 for hexavalent chromium. This is a total value for chromium III and chromium VI. If just chromium III is present at the site, a cleanup level of 100 ug/l may be used (based on WAC 246-290-310 and 40 C.F.R. 141.62).

g **DDT (dichlorodiphenyltrichloroethane).** Cleanup levels based on concentration derived using Equation 720-2.

h **1,2 Dichloroethane (ethylene dichloride or EDC)**. Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

i **Ethylbenzene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

j **Ethylene dibromide (1,2 dibromoethane or EDB).** Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit.

k **Gross Alpha Particle Activity, excluding uranium.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).

l **Gross Beta Particle Activity, including gamma activity.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).

m **Lead.** Cleanup level based on applicable state and federal law (40 C.F.R. 141.80).

n **Lindane.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

o **Methylene chloride (dichloromethane).** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

p **Mercury.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.62).

q **Methyl tertiary-butyl ether (MTBE).** Cleanup level based on federal drinking water advisory level (EPA-822-F-97-009, December 1997).

r **Naphthalenes.** Cleanup level based on concentration derived using Equation 720-1. This is a total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.

s **PCB mixtures.** Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit. This cleanup level is a total value for all PCBs.

t **Radium 226 and 228.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).

u **Radium 226.** Cleanup level based on applicable state law (WAC 246-290-310).

v **Tetrachloroethylene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

w **Toluene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

x **Total Petroleum Hydrocarbons (TPH).** TPH cleanup values have been provided for the most common petroleum products encountered at contaminated sites. Where there is a mixture of products or the product composition is unknown, samples must be tested using both the NWTPH-Gx and NWTPH-Dx methods and the lowest applicable TPH cleanup level must be met.

- **Gasoline range organics** means organic compounds measured using method NWTPH-Gx. Examples are aviation and automotive gasoline. The cleanup level is based on protection of ground water for noncarcinogenic effects during drinking water use. Two cleanup levels are provided. The higher value is based on the assumption that no benzene is present in the ground water sample. If any detectable amount of benzene is present in the ground water sample, then the lower TPH cleanup level must be used. No interpolation between these cleanup levels is allowed. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene, EDB and EDC] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and MTBE], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for gasoline releases.
- **Diesel range organics** means organic compounds measured using NWTPH-Dx. Examples are diesel, kerosene, and #1 and #2 heating oil. The cleanup level is based on protection from noncarcinogenic effects during drinking water use. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene and PAHs] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and naphthalenes], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for diesel releases.
- **Heavy oils** means organic compounds measured using NWTPH-Dx. Examples are #6 fuel oil, bunker C oil, hydraulic oil and waste oil. The cleanup level is based on protection from noncarcinogenic effects during drinking water use, assuming a product composition similar to diesel fuel. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene, PAHs and PCBs] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and naphthalenes], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for heavy oil releases.
- **Mineral oil** means non-PCB mineral oil, typically used as an insulator and coolant in electrical devices such as transformers and capacitors measured using NWTPH-Dx. The cleanup level is based on protection from noncarcinogenic effects during drinking water use. Sites using this cleanup level must analyze ground water samples for PCBs and meet the PCB cleanup level in this table unless it can be demonstrated that: (1) The release originated from an electrical device manufactured after July 1, 1979; or (2) oil containing PCBs was never used in the equipment suspected as the source of the release; or (3) it can be documented that the oil released was recently tested and did not contain PCBs. Method B (or Method C, if applicable) must be used for releases of oils containing greater than 50 ppm PCBs. See Table 830-1 for the minimum testing requirements for mineral oil releases.

y **1,1,1 Trichloroethane.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

z **Trichloroethylene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).

aa **Vinyl chloride.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61), adjusted to a 1×10^{-5} risk.

bb **Xylenes.** Cleanup level based on xylene not exceeding the maximum allowed cleanup level in this table for total petroleum hydrocarbons and on prevention of adverse aesthetic characteristics. This is a total value for all xylenes.

APPENDIX B. LABORATORY REPORT

B

ACCU LABORATORY

12524 130th Lane NE
Kirkland, WA 98034

Tel: (425) 214-5858
(425) 214-5868
Email: lisa@accu-lab.com
Website: www.accu-lab.com

March 09, 2018

Mr. Jake Lee
ENVI Tech, Inc.
16541 Redmond Way #358C
Redmond, WA 98052

Dear Mr. Lee:

Please find enclosed the analytical reports for:

Project Name:	***Red Lion Hotel***
Project#:	***03170103-1***
Date Received:	***March 06, 2018***
Accu Lab WO#:	***18-AL0306-7***

The results of analyses are presented in the attached tables. Applicable reporting limits, QA/QC data and data qualifiers are included. An invoice for the work is also enclosed.

Accu Laboratory appreciates the opportunity to provide analytical service for this project. If you should have any question pertaining to the report, or if we can be of further assistance, please feel free to contact me.

Sincerely,

Lisa Y Zhang
Laboratory Manager

ACCU LABORATORY

12524 130th Lane NE
Kirkland WA 98034

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Email: lisa@accu-lab.com
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Analytical Report

Client	**Envi Tech, Inc**	**Acculab WO#**	**18-AL0306-7**
	16541 Redmond Way #358C		
	Redmond WA 98052	Date Sampled	3/6/2018
Project Manager	**Jake Lee**	Date Received	3/6/2018
Project Name	**Red Lion Hotel**	Date Reported	3/9/2018
Project #	**03170103-1**		

NWTPH-Gx/BTEX in Water

Accu Lab Analytical Batch# AL030618-2

Client sample ID					**MW1**	**MW2**	**MW3**	**MW4**
Lab ID	**MRL**	**Unit**	**MTH BLK**	**LCS**	18-AL0306-7-1	18-AL0306-7-2	18-AL0306-7-3	18-AL0306-7-4
Matrix			Water	Water	Water	Water	Water	Water
Date Analyzed			3/6/2018	3/6/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018
NWTPH-Gx								
Mineral Spirits/Other Solvents	0.25	mg/L	nd		nd	nd	nd	nd
Gasoline Range (GRO)	0.25	mg/L	nd	91%	nd	nd	nd	nd
EPA 8260 BTEX								
Benzene	1.0	ug/L	nd	116%	nd	nd	nd	nd
Toluene	1.0	ug/L	nd	107%	nd	nd	nd	nd
Ethylbenzene	1.0	ug/L	nd	109%	nd	nd	nd	nd
m,p-Xylenes	2.0	ug/L	nd	105%	nd	nd	nd	nd
o-Xylene	1.0	ug/L	nd	108%	nd	nd	nd	nd
Surrogate Recoveries								
Dibromofluoromethane			91%	113%	110%	111%	111%	113%
4-Bromofluorobenzene			99%	105%	109%	111%	113%	113%

Acceptable Recovery Limits:

Surrogates/LCS	*80-120%*
MS/MSD	*70-130%*
Acceptable RPD limit:	*30%*

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Analytical Report

Client	**Envi Tech, Inc**	**Acculab WO#**	**18-AL0306-7**
	16541 Redmond Way #358C		
	Redmond WA 98052	Date Sampled	3/6/2018
Project Manager	**Jake Lee**	Date Received	3/6/2018
Project Name	**Red Lion Hotel**	Date Reported	3/9/2018
Project #	**03170103-1**		

NWTPH-Gx/BTEX in Water

Accu Lab Analytical Batch# AL030618-2

Client sample ID			**MW5**
Lab ID	**MRL**	**Unit**	18-AL0306-7-5
Matrix			Water
Date Analyzed			3/7/2018
NWTPH-Gx			
Mineral Spirits/Other Solvents	0.25	mg/L	nd
Gasoline Range (GRO)	0.25	mg/L	nd
EPA 8260 BTEX			
Benzene	1.0	ug/L	nd
Toluene	1.0	ug/L	nd
Ethylbenzene	1.0	ug/L	nd
m,p-Xylenes	2.0	ug/L	nd
o-Xylene	1.0	ug/L	nd
Surrogate Recoveries			
Dibromofluoromethane			112%
4-Bromofluorobenzene			112%

Acceptable Recovery Limits:

Surrogates/LCS	*80-120%*
MS/MSD	*70-130%*
Acceptable RPD limit:	*30%*

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Analytical Report

Client	**Envi Tech, Inc**	**Acculab WO#**	**18-AL0306-7**
	16541 Redmond Way #358C		
	Redmond WA 98052	Date Sampled	3/6/2018
Project Manager	**Jake Lee**	Date Received	3/6/2018
Project Name	**Red Lion Hotel**	Date Reported	3/9/2018
Project #	**03170103-1**		

Metals in Water by EPA 6020B/EPA 3010A

Accu Lab Analytical Batch# AL030718-4

Client sample ID					**MW1**	**MW2**	**MW3**	**MW4**	**MW5**
Lab ID	**MRL**	**Unit**	**MTH BLK**	**LCS**	18-AL0306-7-1	18-AL0306-7-2	18-AL0306-7-3	18-AL0306-7-4	18-AL0306-7-5
Matrix			Total Water	Total Water	Total Water	Total Water	Total Water	Total Water	Total Water
Date Prepared			3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018
Date Analyzed			3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018	3/7/2018
Lead (Pb)	1.0	ug/L	nd	108%	nd	nd	nd	nd	nd

Acceptable Recovery Limits:

LCS	*80-120%*
MS/MSD	*75-125%*
Acceptable RPD limit	*20%*

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Analytical Report

Client	**Envi Tech, Inc**	**Acculab WO#**	**18-AL0306-7**
	16541 Redmond Way #358C		
	Redmond WA 98052	Date Sampled	3/6/2018
Project Manager	**Jake Lee**	Date Received	3/6/2018
Project Name	**Red Lion Hotel**	Date Reported	3/9/2018
Project #	**03170103-1**		

Data Qualifiers and Comments:

MRL- Method Reporting Limit
nd- Indicates the analyte is not detected at the listing reporting limit.
C- Coelution with other compounds.
M- % recoverie of surrogate, MS/MSD is out of the acceptable limit due to matrix effect.
B- Indicates the analyte is detected in the method blank associated with the sample.
J- The analyte is detected at below the reporting limit.
E- The result reported exceeds the calibration range, and is an estimate.
D- Sample required dilution due to matrix. Method Reporting Limits were elevated due to dilutions.
H- Sample was received or analyzed past holding time
Q- Sample was received with head space, improper preserved or above recommended temperature.

ACCU LABORATORY

Accu Lab WO# 18-AL0306-7

Sample Chain of Custody/Analysis Request

12524
~~12542~~4 130th Lane NE,
Kirkland, WA 98034
Tel: (425) 214-5858 , (425) 214-5868
www. accu-lab.com

Company: Envitech
Address: 16541 Redmond Way #358C
Redmond. WA 98052
Telephone: 425-890-3517
Email: jakelee@envitechnology.com

Project Manager: Jake Lee
Project number: ~~030~~03170103-1
Project Name: Red Lion Motel
Sampled by: Jake Lee

Report to: (If not the same as client info)
Invoice to: (If not the same as client info)

Accu Lab #	Sample ID	Date	time	Matrix	Container Type	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx/BTEX	NWTPH-Gx	EPA 8260 Halogenated Volatiles	EPA 8260C VOA in water (EDB not included)	EDB (0.01ppb) by EPA 8011/8260 SIM	Vinyl chloride/TCE/PCE by 8260C SIM	EPA 8260 VOA in Soil	8260 Oxygenates	Ethanol by Modified EPA 8260	EPA 8270D Full Scan	EPA 8270D SIM PAH	PCP by 8270 GC/ECD	EPA 8081B Chlorinated Pesticides	EPA 8082A PCB	6020A Metals (circle one) MTCA5 RCRA8	Metals by EPA 200.8 Dissolved Total	EPA1664 Oil & Grease	pH / TSS / TDS / Conductivity/Turbidity	TCLP RCRA8 SVOA VOA Lead	Note	Composite	Grab
	MW1	3/6/18	11:20	Water				X																		X			
	MW2		12:50					X																		X			
	MW3		14:20					X																		X			
	MW4		10:00					X																		X			
	MW5		15:30					X																		X			

Sample Receipt Information Note:

Turnaround Time: Working Calendar Day

3 Day Standard	X
48 hour	
24 hour	
Same Day	

Relinquished By: Jake Lee Date/Time 3/6/18 16:25
Received By: Date/time 3/6/18 16:25

White page to Laboratory

Yellow page to Client