

August 17, 2015

2014-01-443

Mr. Mark Chandler
Vice President of Environmental Services
TOC Holdings Co.
2737 W. Commodore Way
Seattle, WA 98199

Subject: Groundwater Monitoring Report
Second Quarter, 2015
TOC Facility No. 01-443
4910 Leary Avenue Northwest, Seattle, Washington
Washington State Department of Ecology #85572141

This report summarizes the results of the Second Quarter 2015 groundwater sampling event conducted by HydroCon Environmental (HydroCon) at the Time Oil Co. (currently TOC Holdings Co.) Facility No. 01-443 located at 4910 Leary Avenue Northwest, Seattle, Washington (the Property). The Property location is shown on Figure 1. This report presents a summary of the site background, field activities, and results of the quarterly monitoring event.

Site Background

Site features, including the historical facilities and monitoring wells, are shown on Figure 2. The Property was first developed with a single-family residence sometime between 1893 and 1905, and appeared to have been used for residential purposes until 1922, when the residence was demolished and a Mobil-brand retail gasoline station and automotive repair facility was constructed in its place. This facility was equipped with three fuel-dispensing pump islands, a hydraulic hoist, and grease shed. No information regarding the associated underground storage tanks (USTs) was observed in the available public record. In 1942, the 1922-vintage facility was demolished and the existing building was constructed. The 1942-vintage facility was reportedly equipped with a single pump island; a hydraulic hoist; and as many as four USTs with capacities of 125, 500, 650, and 1,000 gallons. The Property operated as a gasoline service station until at least 1954. Time Oil Co. (currently TOC Holdings Co.) purchased the Property in 1957. The dispenser island was removed from the Property between 1954 and 1967. Between 1959 and 2006, automotive repair or tire sales facilities operated on the Property. The Property is currently occupied by the 1942-vintage, single-story building with an attached covered patio, an associated asphalt-paved parking lot, and perimeter landscaping. The building is currently occupied by the Shelter Lounge.

In 2001, the 125-gallon waste oil UST, hydraulic hoist, and approximately 35 tons of petroleum-contaminated soil (PCS) were removed from the Property. In 2004, the 500-gallon and 650-gallon USTs, the associated product delivery piping, and approximately 1,193 tons of PCS were removed from the Property. Information regarding the removal of the 1,000-gallon UST was not observed in the available records.

Subsurface investigations conducted on the Property since 2000 have confirmed that the historical use of the Property as a retail gasoline station and automotive repair facility has resulted in adverse environmental impacts to soil and groundwater. Laboratory analytical data indicated that concentrations of gasoline-range petroleum hydrocarbons (GRPH); diesel-range petroleum hydrocarbons (DRPH); oil-range petroleum hydrocarbons (ORPH); benzene, toluene, ethylbenzene, and total xylenes (BTEX); 1,2-dichloroethane (EDC), and naphthalene exceeded their respective Washington State Model Toxics Control Act (MTCA) Method A cleanup levels in soil and/or groundwater beneath the Property.

In an effort to mitigate residual groundwater contamination, an in-situ chemical oxidation injection event was conducted at the Property in 2011 and a remedial excavation was completed between July and August of 2012. Multiple groundwater extraction events have also been performed using existing monitoring wells.

Petroleum-impacted soil and groundwater have been encountered beneath the southern portion of the Property, extending a short distance beyond the eastern and southwestern boundaries of the Property. Although PCS and groundwater have been encountered at locations farther east, south, and southwest of the Property, these impacts appear to be related to releases from off-site locations and are, therefore, not included within the boundaries of the Property.

As remediation and monitoring for the Property has progressed, several wells have been removed from the monitoring program, replaced, or decommissioned as follows:

- Monitoring wells MW01 and MW05 were decommissioned in 2004 and later replaced with monitoring wells MW01A and MW05A.
- Monitoring wells MW11 and MW15 were decommissioned as part of the remedial excavation activities in 2012 and later replaced with monitoring wells MW11A and MW15A.

In December 2014, HydroCon conducted a supplemental site investigation at the site¹. The investigation consisted of installing seven temporary borings and collecting soil samples (HC-1 through HC-7). The purpose of the investigation was to further evaluate conditions near MW03, a well with elevated GRPH and benzene concentrations, and to further characterize soil conditions in the area of the 2012 remedial excavation. The report also developed MTCA Method B cleanup levels for soil and groundwater. This report compares groundwater results to these Method B cleanup levels.

Scope of Work

Groundwater samples were collected June 23 through 29, 2015 to evaluate the groundwater quality beneath the Property and to eventually demonstrate compliance with MTCA cleanup regulations. The monitoring event included the following activities:

- Measurement of depth to groundwater in monitoring wells MW01A, MW02 through MW04, MW05A, MW06 through MW10, MW11A, MW12 through MW14, MW15A, and MW16.

¹ HydroCon Environmental, 2015. *Cleanup Action Status Report, TOC Holdings Co. Facility 01-443*. Prepared for TOC Holding Co. May 1.

- Collection and analysis of groundwater samples were collected from the monitoring wells listed above.
- Collection of a field duplicate sample from monitoring well MW03 for quality assurance/quality control (QA/QC) purposes.
- Summarizing the groundwater sampling activities, analytical results, and upcoming work (this report).

Groundwater Sampling Procedures

HydroCon collected groundwater samples on June 23 through 29, 2015 from monitoring wells MW01A, MW02 through MW04, MW05A, MW06 through MW10, MW11A, MW12 through MW14, MW15A, and MW16.

A blind field duplicate was collected from MW03 for QA/QC purposes. Monitoring wells were purged and sampled in accordance with U.S. Environmental Protection Agency (EPA) guidance for low-flow sampling².

Depth to water was measured in these monitoring wells on June 23, 2015. Prior to collecting depth to water measurements at the site, the well cap on each well was removed and the water level was allowed to equilibrate. The depth to water in each well was measured using a clean electronic water level indicator. Water levels were measured at the scribed reference mark (north side of the top of the polyvinyl chloride casing) at each well.

Prior to groundwater sampling, monitoring wells were purged with a low-flow peristaltic pump equipped with a new length of low-density polyethylene tubing attached to a new length of silicone tubing. The tubing intake was placed approximately 2 to 3 feet below the surface of the groundwater or mid-screen in each well. During purging, water quality was monitored using a Quanta multi-parameter water quality meter equipped with a flow-through cell. The water quality parameters monitored and recorded included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each well was purged until all six water quality parameters stabilized or the minimum parameter subset of pH, specific conductance, temperature, and turbidity and/or dissolved oxygen stabilized. Groundwater sample collection forms are provided in Attachment A.

Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported under chain-of-custody to Friedman & Bruya, Inc. of Seattle, Washington, for laboratory analysis.

Purge water generated during the monitoring event was placed in an appropriately labeled 55-gallon steel drum and temporarily stored on the Property pending receipt of analytical data for proper disposal.

² *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (April 1996). EPA/540/S-95/504*

Laboratory Analysis

The analytical protocols for the samples collected at the Property include the required testing for petroleum releases for gasoline (Table 830-1 in the MTCA Cleanup Regulations Chapter 173-340 WAC). The analytical methods include:

- GRPH using Northwest Method NWTPH-Gx
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), and EDC using EPA Method 8260.

Groundwater Conditions

Groundwater levels measured on June 23, 2015, ranged from 12.33 in MW09 to 17.04 feet in MW05A below the top of the monitoring well casings (Table 1). Groundwater elevations ranged from 81.22 feet above mean sea level (amsl) in MW04 to 87.43 feet amsl in MW16. Onsite groundwater elevation contours (off property water levels are not used to evaluate groundwater flow) indicate a groundwater flow direction toward the southwest in the northeast corner of the site with a gradient of 0.108 feet per foot between monitoring wells MW016 and MW1A. A groundwater mound is present near MW14 and gradients flowing from the mound area approximately 0.1 feet per feet. Groundwater elevation contours are shown on Figure 3.

Groundwater Sampling Results

Laboratory analytical results from the monitoring event were compared to applicable MTCA Method B cleanup levels for groundwater. Method B cleanup levels were exceeded for GRPH and benzene in off property wells MW03 and MW09 (Figure 4, Table 1).

Data Quality Review

HydroCon performed a QA/QC review of the analytical results, which included a review of accuracy and precision of the data supplied by the laboratory. In addition, the RPD for sample MW03 and its duplicate (MW99) were within acceptance for all analytes. The RPD cannot be calculated if the results are below the laboratory reporting limit. All other quality control criteria are acceptable for the groundwater samples; therefore, no action is required and analytical results are usable to meet the project objectives. A copy of the laboratory analytical report is provided in Appendix B.

Remediation System Performance

There are no remedial systems operating at the site.

Work Planned

HydroCon will perform groundwater monitoring at the Property in the Third Quarter 2015, the results of which will be included in a groundwater monitoring report.

Sincerely,

Craig Hultgren, LHG
Senior Geologist/Project Manager

cc: Eugene Freeman, Washington State Department of Ecology, Northwest Region

Figures

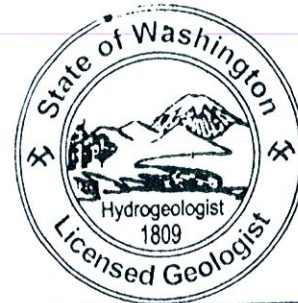
- Figure 1 - Site Location Map
- Figure 2 - Site Features
- Figure 3 - Groundwater Elevation Contours
- Figure 4 - Groundwater Analytical Results

Table

- Table 1 - Summary of Groundwater Data

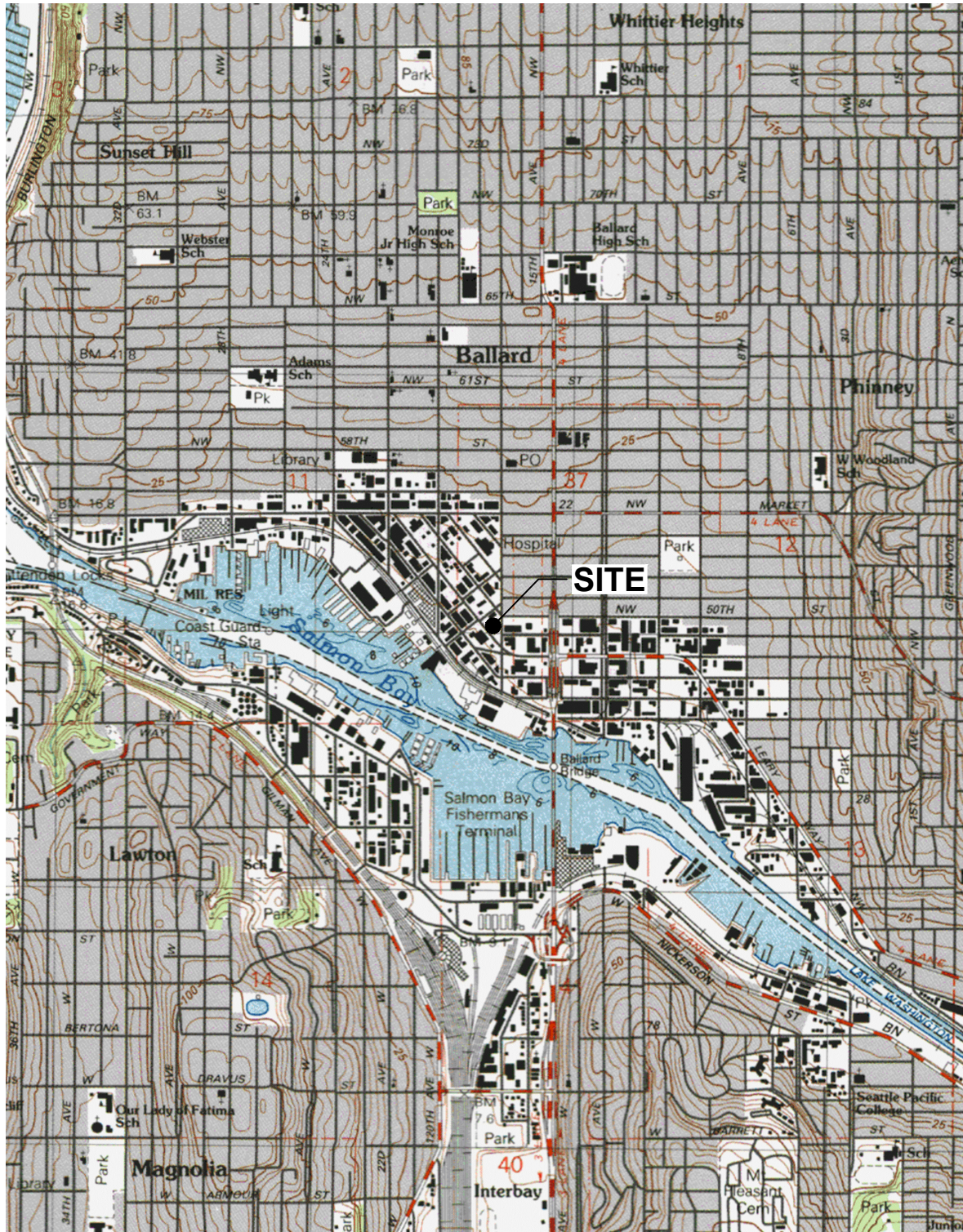
Attachments

- Attachment A - Groundwater Sample Collection Forms
- Attachment B - Laboratory Report and Chain-of-Custody Documentation

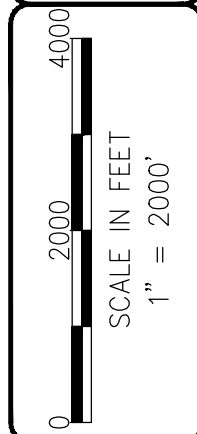
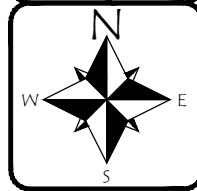


CRAIG HULTGREN

FIGURES


















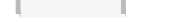
NOTE(S):
 USGS, SEATTLE NORTH QUADRANGLE
 WASHINGTON
 7.5 MINUTE SERIES (TOPOGRAPHIC)

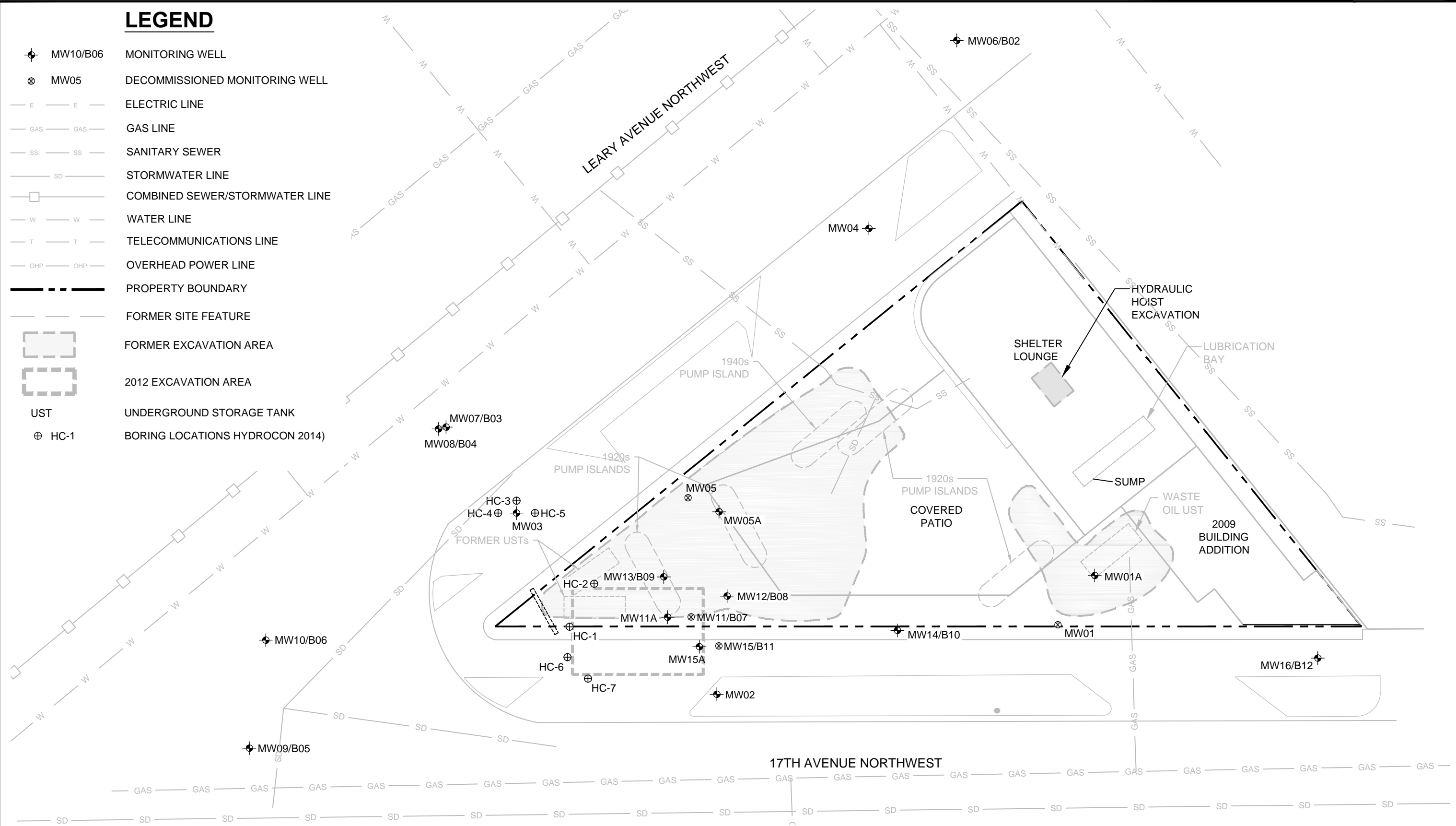


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 DWN: JJT
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 PROJECT NO:
 14-806

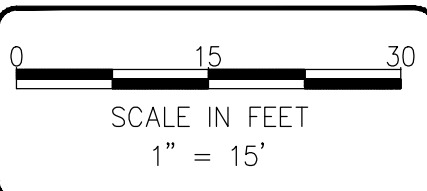
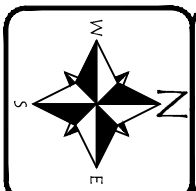
FIGURE 1
 SITE LOCATION MAP
 TOC HOLDINGS CO. FACILITY NO. 01-443
 4910 LEARY AVE. NW
 SEATTLE, WA.

LEGEND

-  MW10/B06 MONITORING WELL
-  MW05 DECOMMISSIONED MONITORING WELL
-  E E ELECTRIC LINE
-  GAS GAS GAS LINE
-  SS SS SANITARY SEWER
-  SD STORMWATER LINE
-  COMBINED SEWER/STORMWATER LINE
-  W W WATER LINE
-  T T TELECOMMUNICATIONS LINE
-  OHP OHP OVERHEAD POWER LINE
-  PROPERTY BOUNDARY
-  FORMER SITE FEATURE
-  FORMER EXCAVATION AREA
-  2012 EXCAVATION AREA
-  UST UNDERGROUND STORAGE TANK
-  HC-1 BORING LOCATIONS HYDROCON 2014)



NOTE:
 UNDERGROUND UTILITY LOCATIONS BASED ON
 2014 REVIEW OF PUBLIC FILES AND A PRIVATE
 LOCATOR SERVICE.









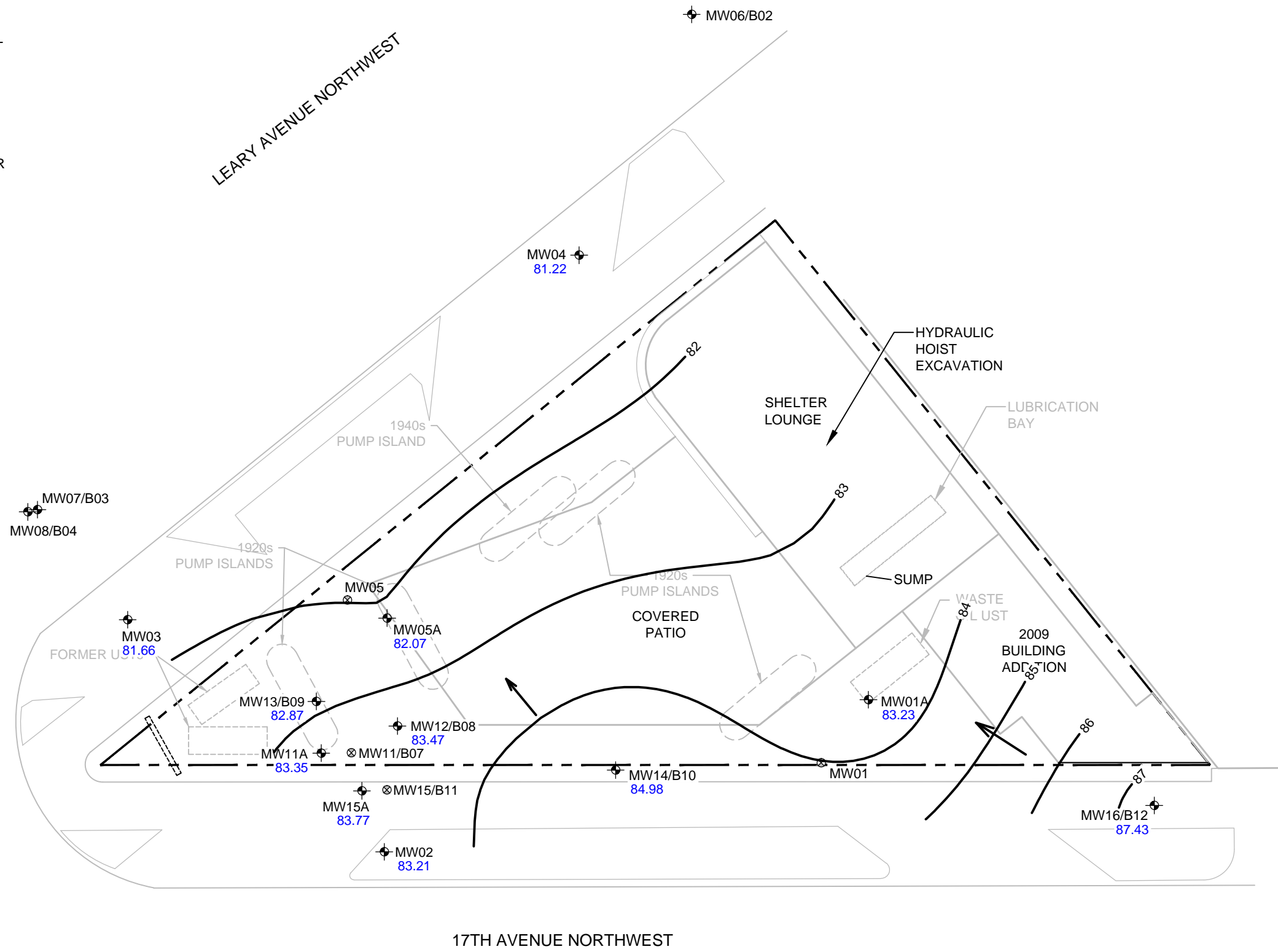
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FIGURE 2
 SITE FEATURES
 TOC HOLDINGS CO. FACILITY NO. 01-443
 4910 LEARY AVE. NW
 SEATTLE, WA.

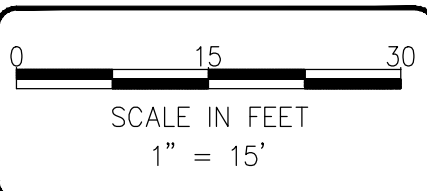
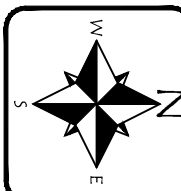
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LEGEND

-  MW10/B06 MONITORING WELL
-  MW05 DECOMMISSIONED MONITORING WELL
-  PROPERTY BOUNDARY
-  FORMER SITE FEATURE
- 82.07 GROUNDWATER SURFACE ELEVATION
-  84 GROUNDWATER ELEVATION CONTOUR
-  APPROXIMATE GROUNDWATER FLOW DIRECTION



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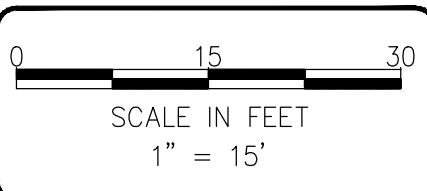
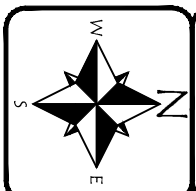
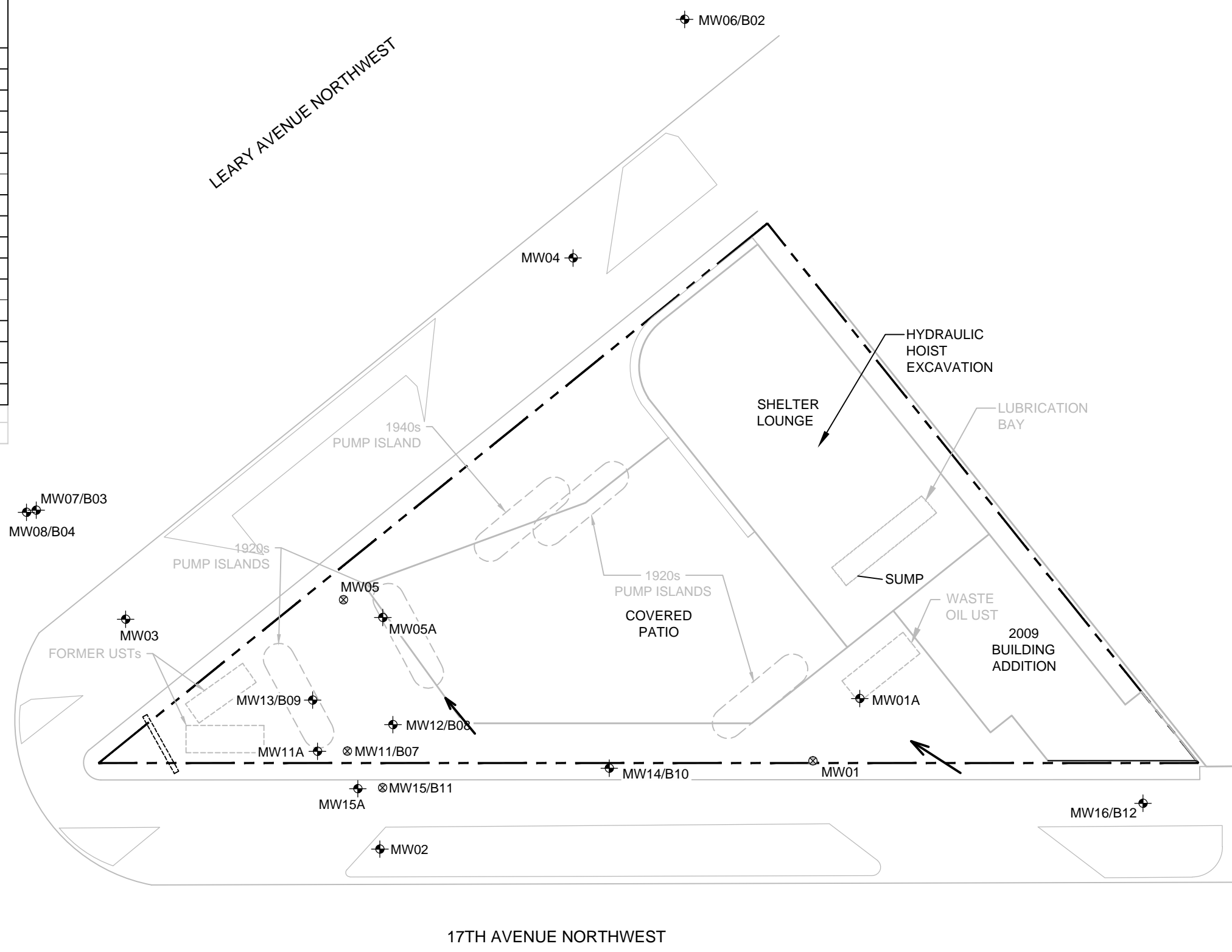
FIGURE 3
 GROUNDWATER ELEVATION CONTOURS
 FOR JUNE 2015
 TOC HOLDINGS CO. FACILITY NO. 01-443
 4910 LEARY AVE. NW
 SEATTLE, WA.

Well ID	Analytical Results (ug/L)					
	GRPH	Benzene	Toluene	Ethylbenzene	Xylene Total	EDC
MTCA B	800/1,000	0.795	640	800	1,600	0.481
MW01A	<100	<0.35	<1	<1	<3	<1 ec
MW02	<100	<0.35	<1	<1	<3	<1 ec
MW03	3,300	340	2	55	47.4	<1 ec
MW04	190	<0.35	<1	<1	<3	<1 ec
MW05A	<100	<0.35	<1	<1	<3	<1 ec
MW06	<100	<0.35	<1	<1	<3	<1 ec
MW07	<100	<0.35	<1	<1	<3	<1 ec
MW08	<100	<0.35	<1	<1	<3	<1 ec
MW09	7,000	2.8	33	390	185	<1 ec
MW10	<100	<0.35	<1	<1	<3	<1 ec
MW11A	<100	<0.35	<1	<1	<3	<1 ec
MW12	<100	<0.35	<1	<1	<3	<1 ec
MW13	<100	<0.35	<1	<1	<3	<1 ec
MW14	<100	<0.35	<1	<1	<3	<1 ec
MW15A	<100	<0.35	<1	<1	<3	<1 ec
MW16	<100	<0.35	<1	<1	<3	<1 ec

Laboratory Notes:
ec - Method reporting limit exceeds Clean Up Level.

LEGEND

- ⊕ MW10/B06 MONITORING WELL
- ⊗ MW05 DECOMMISSIONED MONITORING WELL
- PROPERTY BOUNDARY
- - - FORMER SITE FEATURE
- APPROXIMATE GROUNDWATER FLOW DIRECTION



DATE: 7-15-15
DWN: JJT
CHK: NV
APPROVED: NV
PRJ. MGR: CH
PROJECT NO:
14-806

FIGURE 4
GROUNDWATER ANALYTICAL RESULTS
FOR JUNE 2015
TOC HOLDINGS CO. FACILITY NO. 01-443
4910 LEARY AVE. NW
SEATTLE, WA.

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TABLES



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

	Measurement				Fuels		Volatiles						
	SPH Thickness	Top of Casing	Depth to Groundwater	Groundwater Elevation	Diesel Range Organics	Residual Range Organics	Gasoline Range Organics	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	EDC
	feet	feet	feet	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
01-443 MTCA B Site Specific					500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)							1000						
Benzene (Detect)							800						

Field ID	Date	SPH Thickness	Top of Casing	Depth to Groundwater	Groundwater Elevation	Diesel Range Organics	Residual Range Organics	Gasoline Range Organics	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	EDC
MW01	12/11/2001	-	99.87	10.39	89.48	-	-	-	-	-	-	-	-	-
MW01	1/8/2002	-	99.87	9.86	90.01	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
MW01	5/29/2002	-	99.87	10.75	89.12	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
MW01	9/10/2002	-	99.87	11.5	88.37	-	-	<50	<1 ec	<1	<1	<2	-	<1 ec
MW01	12/6/2002	-	99.87	16.63	83.24	-	-	<50	<0.2	<0.2	<0.2	<0.5	-	<0.2
MW01	3/26/2003	-	99.87	10.9	88.97	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01	6/20/2003	-	99.87	11.18	88.69	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01	9/16/2003	-	99.87	12.13	87.74	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01	12/22/2003	-	99.87	11.11	88.76	-	-	<50	1.65	<0.5	<0.5	<1	-	<0.2
MW01	3/19/2004	-	99.87	10.58	89.29	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01	6/28/2004	-	99.87	10.88	88.99	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01A	12/27/2004	-	99.64	10.06	89.58	-	-	<50	<1 ec	<1	<1	<3	-	<0.01
MW01A	3/22/2005	-	99.64	10.41	89.23	-	-	<50	<1 ec	<1	<1	<3	-	<0.02
MW01A	6/29/2005	-	99.64	11.04	88.6	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
MW01A	3/15/2007	-	99.64	11.03	88.61	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
MW01A	9/21/2007	-	99.64	12.61	87.03	<51	<260	<100	<1 ec	<1	<1	<3	-	<1 ec
MW01A	1/15/2008	-	99.64	11.91	87.73	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
MW01A	9/23/2008	-	99.64	11.92	87.72	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
MW01A	2/9/2009	-	99.64	11.21	88.43	<50	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
MW01A	5/21/2009	-	99.64	10.37	89.27	-	-	<100	<1 ec	<1	<1	<3	<1	<1 ec
MW01A	9/17/2009	-	99.64	12.3	87.34	<50	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
MW01A	12/23/2009	-	99.64	10.35	89.29	<50	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
MW01A	3/18/2010	-	99.64	10.62	89.02	63 x	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
MW01A	6/29/2010	-	99.64	10.84	88.8	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	10/14/2010	-	99.64	11.21	88.43	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	12/10/2010	-	99.64	10.63	89.01	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	3/3/2011	-	99.64	10.58	89.06	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	5/31/2011	-	99.64	10.55	89.09	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	8/29/2011	-	99.64	11.73	87.91	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	12/21/2011	-	99.64	14.57	85.07	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	3/22/2012	-	99.64	15.35	84.29	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	6/13/2012	-	99.64	15.71	83.93	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	9/6/2012	-	99.64	16.71	82.93	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	12/3/2012	-	99.64	16.12	83.52	-	-	<100	<1 ec	<1	<1	<3	-	-
MW01A	2/12/2013	-	99.64	15.28	84.36	-	-	<100	<1 ec	<1	<1	<3	-	-



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

	Measurement				Fuels		Volatiles							
	SPH Thickness	Top of Casing	Depth to Groundwater	Groundwater Elevation	Diesel Range Organics	Residual Range Organics	Gasoline Range Organics	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	EDC	
	feet	feet	feet	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
01-443 MTCA B Site Specific					500	500	800 1000	0.795	640	800	1600	160	0.481	
Benzene (Non Detect)							1000							
Benzene (Detect)							800							
	5/21/2013	-	99.64	15.64	84	-	-	<100	<1 ec	<1	<1	<3	-	-
	8/14/2013	-	99.64	16.53	83.11	-	-	<100	<1 ec	<1	<1	<3	-	-
	12/17/2013	-	99.64	17.11	82.53	-	-	<100	<1 ec	<1	<1	<3	-	-
	2/28/2014	-	99.64	16.45	83.19	-	-	<100	<0.35	<1	<1	<3	-	-
	5/20/2014	-	99.64	15.4	84.24	-	-	<100	<1 ec	<1	<1	<3	-	-
	9/3/2014	-	99.64	16.8	82.84	-	-	<100	<0.35	<1	<1	<3	-	<1 ec
	12/23/2014	-	99.64	15.24	84.4	-	-	<100	<0.35	<1	<1	<3	-	<1 ec
	3/23/2015	-	99.64	15.22	84.42	-	-	<100	<0.35 ec	<1	<1	<3	-	<1 ec
	6/29/2015	-	99.64	16.41	83.23	-	-	<100	<0.35	<1	<1	<3	-	<1 ec



Table 1
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 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
MW02	1/8/2002	-	98.95	9.83	89.12	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
	5/29/2002	-	98.95	9.5	89.45	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
	9/10/2002	-	98.95	10.3	88.65	-	-	<50	<1 ec	<1	<1	<2	-	<1 ec
	12/6/2002	-	98.95	11.25	87.7	-	-	<50	<0.2	<0.2	<0.2	<0.5	-	<0.2
	3/26/2003	-	98.95	9.92	89.03	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	6/20/2003	-	98.95	10.8	88.15	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	9/16/2003	-	98.95	11.7	87.25	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	12/22/2003	-	98.95	10.69	88.26	-	-	<50	0.628	<0.5	<0.5	<1	-	<0.2
	3/19/2004	-	98.95	10.3	88.65	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	6/28/2004	-	98.95	10.78	88.17	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	11/8/2004	-	98.95	10.37	88.58	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	12/27/2004	-	98.95	9.97	88.98	-	-	<50	<1 ec	<1	<1	<3	-	<0.01
	3/22/2005	-	98.95	10.38	88.57	-	-	<50	<1 ec	<1	<1	<3	-	<0.02
	6/29/2005	-	98.95	10.21	88.74	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	3/15/2007	-	98.95	11.76	87.19	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	9/21/2007	-	98.95	11.73	87.22	<52	<260	<100	<1 ec	<1	<1	<3	-	<1 ec
	1/15/2008	-	98.95	10.64	88.31	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	9/23/2008	-	98.95	11.62	87.33	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	2/9/2009	-	98.95	10.98	87.97	-	-	-	-	-	-	-	-	-
	5/21/2009	-	98.95	10.16	88.79	-	-	-	-	-	-	-	-	-
	9/17/2009	-	98.95	12.04	86.91	-	-	-	-	-	-	-	-	-
	12/23/2009	-	98.95	10.55	88.4	-	-	-	-	-	-	-	-	-
	3/18/2010	-	98.95	10.4	88.55	-	-	-	-	-	-	-	-	-
	6/29/2010	-	98.95	10.56	88.39	-	-	-	-	-	-	-	-	-
	10/14/2010	-	98.95	10.9	88.05	-	-	-	-	-	-	-	-	-
	12/10/2010	-	98.95	10.3	88.65	-	-	-	-	-	-	-	-	-
	3/3/2011	-	98.95	10.36	88.59	-	-	-	-	-	-	-	-	-
	5/31/2011	-	98.95	0 ia	-	-	-	-	-	-	-	-	-	-
	8/29/2011	-	98.95	11.56	87.39	-	-	-	-	-	-	-	-	-
	12/21/2011	-	98.95	13.73	85.22	-	-	-	-	-	-	-	-	-
	3/22/2012	-	98.95	14.28	84.67	-	-	-	-	-	-	-	-	-
	6/13/2012	-	98.95	14.83	84.12	-	-	-	-	-	-	-	-	-
	9/6/2012	-	98.95	16.01	82.94	-	-	-	-	-	-	-	-	-
	12/3/2012	-	98.95	13.84	85.11	-	-	-	-	-	-	-	-	-
	2/12/2013	-	98.95	14.12	84.83	-	-	-	-	-	-	-	-	-
	5/20/2013	-	98.95	14.58	84.37	-	-	-	-	-	-	-	-	-
	8/13/2013	-	98.95	15.64	83.31	-	-	-	-	-	-	-	-	-



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness	Top of Casing	Depth to Groundwater	Groundwater Elevation	Diesel Range Organics	Residual Range Organics	Gasoline Range Organics	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	EDC
		feet	feet	feet	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
	12/17/2013	-	98.95	16.14	82.81	-	-	-	-	-	-	-	-	-
	2/28/2014	-	98.95	14.81	84.14	-	-	-	-	-	-	-	-	-
	5/21/2014	-	98.95	14.07	84.88	-	-	-	-	-	-	-	-	-
	9/2/2014	-	98.95	16.04	82.91	-	-	<100	<0.35	<1	<1	<3	-	<1 ec
	12/22/2014	-	98.95	13.83	85.12	-	-	-	-	-	-	-	-	-
	3/20/2015	-	98.95	14.1	84.85	-	-	<100	<0.35 ec	<1	<1	<3	-	<1 ec
	6/26/2015	-	98.95	15.74	83.21	-	-	<100	<0.35	<1	<1	<3	-	<1 ec



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
MW03	12/11/2001	-	98.43	9.49	88.94	-	-	-	-	-	-	-	-	-
	1/8/2002	-	98.43	9.33	89.1	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
	5/29/2002	-	98.43	10.07	88.36	-	-	<50	<0.5	<0.5	<0.5	<1	-	46.4
	9/10/2002	-	98.43	11.08	87.35	-	-	<50	<2 ec	<2	<2	<4	-	50.6
	12/6/2002	-	98.43	12.16	86.27	-	-	<50	<1 ec	<1	<1	<2	-	36.5
	3/26/2003	-	98.43	9.58	88.85	-	-	<50	<0.5	<0.5	<0.5	<1	-	44.8
	6/20/2003	-	98.43	10.83	87.6	-	-	<50	<0.5	<0.5	<0.5	<1	-	41.4
	9/16/2003	-	98.43	11.83	86.6	-	-	<50	<0.5	<0.5	<0.5	<1	-	39.8
	12/22/2003	-	98.43	10.29	88.14	-	-	<50	<0.5	<0.5	<0.5	<1	-	32.2
	3/19/2004	-	98.43	10.57	87.86	-	-	<50	<0.5	<0.5	<0.5	<1	-	45.8
	6/28/2004	-	98.43	10.69	87.74	-	-	<50	<0.5	<0.5	<0.5	<1	-	37.8
	11/8/2004	-	98.43	10.83	87.6	-	-	<50	<0.5	<0.5	<0.5	<1	-	41.8
	12/27/2004	-	98.43	9.92	88.51	-	-	<50	<1 ec	<1	<1	<3	-	41
	3/22/2005	-	98.43	10.35	88.08	-	-	<50	<1 ec	<1	<1	<3	-	44
	6/29/2005	-	98.43	10.34	88.09	-	-	<50	0.889	<0.5	<0.5	<1	-	33.9
	3/15/2007	-	98.43	11.09	87.34	210	<250	190	1.5	<1	<1	<3	-	30
	9/21/2007	-	98.43	11.66	86.77	180	<260	110	<1 ec	<1	<1	<3	-	33
	1/15/2008	-	98.43	10.71	87.72	120	<250	<100	<1 ec	<1	<1	<3	-	23
	9/23/2008	-	98.43	12.25	86.18	180	<250	<100	<1 ec	<1	<1	<3	-	24
	2/9/2009	-	98.43	10.92	87.51	-	-	-	-	-	-	-	-	-
	5/21/2009	-	98.43	10.15	88.28	-	-	-	-	-	-	-	-	-
	9/17/2009	-	98.43	12.07	86.36	-	-	-	-	-	-	-	-	-
	12/23/2009	-	98.43	10.58	87.85	-	-	-	-	-	-	-	-	-
	3/18/2010	-	98.43	10.4	88.03	-	-	-	-	-	-	-	-	-
	6/29/2010	-	98.43	10.55	87.88	-	-	-	-	-	-	-	-	-
	10/14/2010	-	98.43	10.99	87.44	-	-	-	-	-	-	-	-	-
	12/10/2010	-	98.43	10.4	88.03	-	-	-	-	-	-	-	-	-
	3/3/2011	-	98.43	10.37	88.06	-	-	-	-	-	-	-	-	-
	5/31/2011	-	98.43	10.37	88.06	-	-	-	-	-	-	-	-	-
	8/29/2011	-	98.43	11.66	86.77	-	-	-	-	-	-	-	-	-
	12/21/2011	-	98.43	14.62	83.81	-	-	-	-	-	-	-	-	-
	3/23/2012	-	98.43	15.52	82.91	-	-	-	-	-	-	-	-	-
	6/13/2012	-	98.43	15.95	82.48	-	-	-	-	-	-	-	-	-
	9/7/2012	-	98.43	17.14	81.29	-	-	3700	140	4.6	80	64	-	-
	12/3/2012	-	98.43	15.6	82.83	-	-	-	-	-	-	-	-	-
	2/12/2013	0.02	98.43	15.5	82.95	-	-	-	-	-	-	-	-	-
	5/20/2013	-	98.43	15.94	82.49	-	-	-	-	-	-	-	-	-



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

	Measurement				Fuels		Volatiles						
	SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific					500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)							1000						
Benzene (Detect)							800						
	8/13/2013	-	98.43	16.75	81.68	-	-	-	-	-	-	-	-
	12/17/2013	-	98.43	-	-	-	-	-	-	-	-	-	-
	2/28/2014	-	98.43	16.35	82.08	-	-	-	-	-	-	-	-
	5/21/2014	-	98.43	15.3	83.13	-	-	-	-	-	-	-	-
	9/4/2014	-	98.43	17.11	81.32	-	-	3300	420	2.5	55	104.5	<1 ec
	12/22/2014	-	98.43	15.33	83.1	-	-	-	-	-	-	-	-
	3/23/2015	-	98.43	15.45	82.98	-	-	3000	110	1.1	47	46.3	6
	6/29/2015	-	98.43	16.77	81.66	-	-	3300	340	2	55	47.4	<1 ec



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
MW04	12/11/2001	-	98.22	9.2	89.02	-	-	-	-	-	-	-	-	-
	1/8/2002	-	98.22	8.75	89.47	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
	5/29/2002	-	98.22	9.57	88.65	-	-	<50	<0.5	<0.5	<0.5	<1	-	-
	9/10/2002	-	98.22	10.6	87.62	-	-	<50	<1 ec	<1	<1	<2	-	3.19
	12/6/2002	-	98.22	10.9	87.32	-	-	<50	<0.2	<0.2	<0.2	<0.5	-	4.42
	3/26/2003	-	98.22	8.91	89.31	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	6/20/2003	-	98.22	9.95	88.27	-	-	<50	<0.5	<0.5	<0.5	<1	-	3.73
	9/16/2003	-	98.22	10.9	87.32	-	-	<50	<0.5	<0.5	<0.5	<1	-	3.78
	12/22/2003	-	98.22	9.3	88.92	-	-	<50	<0.5	<0.5	<0.5	<1	-	<0.2
	3/19/2004	-	98.22	9.58	88.64	-	-	<50	<0.5	<0.5	<0.5	<1	-	3.01
	6/28/2004	-	98.22	9.9	88.32	-	-	<50	<0.5	<0.5	<0.5	<1	-	3.06
	11/8/2004	-	98.22	9.85	88.37	-	-	<50	<0.5	<0.5	<0.5	<1	-	3.46
	12/27/2004	-	98.22	9.43	88.79	-	-	<50	<1 ec	<1	<1	<3	-	4
	3/22/2005	-	98.22	10.34	87.88	-	-	<50	<1 ec	<1	<1	<3	-	3.5
	6/29/2005	-	98.22	9.64	88.58	-	-	<50	<0.5	<0.5	<0.5	<1	-	2.65
	3/15/2007	-	98.22	9.95	88.27	130	<250	<100	<1 ec	<1	<1	<3	-	4.8
	9/21/2007	-	98.22	11.43	86.79	82	<260	<100	<1 ec	<1	<1	<3	-	11
	1/15/2008	-	98.22	10.71	87.51	<50	<250	<100	<1 ec	<1	<1	<3	-	9.7
	9/23/2008	-	98.22	11.49	86.73	68	<250	<100	<1 ec	<1	<1	<3	-	14
	2/9/2009	-	98.22	10.71	87.51	-	-	-	-	-	-	-	-	-
	5/21/2009	-	98.22	9.85	88.37	-	-	-	-	-	-	-	-	-
	9/17/2009	-	98.22	11.85	86.37	-	-	-	-	-	-	-	-	-
	12/23/2009	-	98.22	10.34	87.88	-	-	-	-	-	-	-	-	-
	3/18/2010	-	98.22	10.04	88.18	-	-	-	-	-	-	-	-	-
	6/29/2010	-	98.22	10.27	87.95	-	-	-	-	-	-	-	-	-
	10/14/2010	-	98.22	10.77	87.45	-	-	-	-	-	-	-	-	-
	12/10/2010	-	98.22	10.18	88.04	-	-	-	-	-	-	-	-	-
	3/3/2011	-	98.22	10.04	88.18	-	-	-	-	-	-	-	-	-
	5/31/2011	-	98.22	10.02	88.2	-	-	-	-	-	-	-	-	-
	8/29/2011	-	98.22	11.3	86.92	-	-	-	-	-	-	-	-	-
	12/21/2011	-	98.22	14.65	83.57	-	-	-	-	-	-	-	-	-
	3/22/2012	-	98.22	15.69	82.53	-	-	-	-	-	-	-	-	-
	6/13/2012	-	98.22	16.17	82.05	-	-	-	-	-	-	-	-	-
	9/6/2012	-	98.22	17.32	80.9	-	-	-	-	-	-	-	-	-
	12/3/2012	-	98.22	16.17	82.05	-	-	-	-	-	-	-	-	-
	2/12/2013	-	98.22	15.81	82.41	-	-	-	-	-	-	-	-	-
	5/20/2013	-	98.22	16.14	82.08	-	-	-	-	-	-	-	-	-



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

	Measurement				Fuels		Volatiles						
	SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific					500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)							1000						
Benzene (Detect)							800						
	8/13/2013	-	98.22	16.95	81.27	-	-	-	-	-	-	-	-
	12/17/2013	-	98.22	17.66	80.56	-	-	-	-	-	-	-	-
	2/28/2014	-	98.22	16.92	81.3	-	-	-	-	-	-	-	-
	5/21/2014	-	98.22	15.71	82.51	-	-	-	-	-	-	-	-
	9/4/2014	-	98.22	17.37	80.85	-	-	290	<0.35	<1	<1	<3	<1 ec
	12/22/2014	-	98.22	15.82	82.4	-	-	-	-	-	-	-	-
	3/19/2015	-	98.22	15.81	82.41	-	-	260	<0.35 ec	<1	<1	<3	<1 ec
	6/24/2015	-	98.22	17	81.22	-	-	190	<0.35	<1	<1	<3	<1 ec



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 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness feet	Top of Casing feet	Depth to Groundwater feet	Groundwater Elevation feet	Diesel Range Organics µg/L	Residual Range Organics µg/L	Gasoline Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylene Total µg/L	Naphthalene µg/L	EDC µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
MW05	12/11/2001	-	99.06	-	-	-	-	-	-	-	-	-	-	-
	1/8/2002	-	99.06	9.36	89.7	-	-	91.4	<0.5	<0.5	<0.5	<1	-	-
	5/29/2002	-	99.06	10.18	88.88	-	-	398	3.98	0.77	7.32	2.9	-	-
	9/10/2002	-	99.06	11.11	87.95	-	-	594	7.42	26	1.94	33.01	-	<1 ec
	12/6/2002	-	99.06	11.39	87.67	-	-	503	2.88	<1	4.6	<2	-	<1 ec
	3/26/2003	-	99.06	9.51	89.55	-	-	1010	8.57	1.79	20.3	4.08	-	<1 ec
	6/20/2003	-	99.06	10.5	88.56	-	-	741	10.1	2.41	23.8	5.92	-	0.46
	9/16/2003	-	99.06	11.35	87.71	-	-	1340	13.6	3.31	48.2	8.89	-	<0.2
	12/22/2003	-	99.06	9.79	89.27	-	-	2090	23.7	7.34	66.6	21.8	-	<0.2
	3/19/2004	-	99.06	10.04	89.02	-	-	1550	15.1	4.62	33.7	12.9	-	0.52
	6/28/2004	-	99.06	10.4	88.66	-	-	2960	24.2	9.32	91.7	27.7	-	<0.2
MW05A	12/27/2004	-	99.11	10.13	88.98	-	-	<50	<1 ec	<1	<1	<3	-	0.3
	3/22/2005	-	99.11	11.31	87.8	-	-	<50	<1 ec	<1	<1	<3	-	0.38
	6/29/2005	-	99.11	10.47	88.64	-	-	<50	3.86	<0.5	<0.5	<1	-	0.51
	3/15/2007	-	99.11	10.56	88.55	92	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	9/21/2007	-	99.11	12.03	87.08	53	<260	<100	<1 ec	<1	<1	<3	-	<1 ec
	1/15/2008	-	99.11	11.05	88.06	<50	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	9/23/2008	-	99.11	12.06	87.05	58	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	2/9/2009	-	99.11	11.32	87.79	<50	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
	5/11/2009	-	99.11	10.51	88.6	-	-	<100	<1 ec	<1	<1	<3	<1	<1 ec
	9/17/2009	-	99.11	12.43	86.68	71	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
	12/23/2009	-	99.11	10.92	88.19	<50	<250	<100	<1 ec	<1	<1	<3	<1	<1 ec
	3/18/2010	-	99.11	10.74	88.37	110 x	<250	<100	<1 ec	<1	<1	<3	-	<1 ec
	6/29/2010	-	99.11	10.9	88.21	-	-	<100	<1 ec	<1	<1	<3	-	-
	10/14/2010	-	99.11	11.35	87.76	-	-	<100	<1 ec	<1	<1	<3	-	-
	12/10/2010	-	99.11	10.71	88.4	-	-	<100	<1 ec	<1	<1	<3	-	-
	3/3/2011	-	99.11	10.71	88.4	-	-	<100	<1 ec	<1	<1	<3	-	-
	6/1/2011	-	99.11	10.71	88.4	-	-	<100	<1 ec	<1	<1	<3	-	-
	8/29/2011	-	99.11	11.96	87.15	-	-	<100	<1 ec	<1	<1	<3	-	-
	12/21/2011	-	99.11	14.82	84.29	-	-	<100	<1 ec	<1	<1	<3	-	-
	3/22/2012	-	99.11	15.73	83.38	-	-	<100	<1 ec	<1	<1	<3	-	-
	6/13/2012	-	99.11	16.19	82.92	-	-	<100	<1 ec	<1	<1	<3	-	-
	9/6/2012	-	99.11	17.38	81.73	-	-	<100	<1 ec	<1	<1	<3	-	-
	12/3/2012	-	99.11	15.7	83.41	-	-	<100	<1 ec	<1	<1	<3	-	-
	2/12/2013	-	99.11	13.66	85.45	-	-	<100	<1 ec	<1	<1	<3	-	-
	5/20/2013	-	99.11	16.09	83.02	-	-	<100	<1 ec	<1	<1	<3	-	-
	8/13/2013	-	99.11	17.01	82.1	-	-	<100	<1 ec	<1	<1	<3	-	-



Table 1
 Summary of Groundwater Data
 TOC Holdings Co. Facility No. 01-443
 4910 Leary Avenue Northwest, Seattle, Washington

		Measurement				Fuels		Volatiles						
		SPH Thickness	Top of Casing	Depth to Groundwater	Groundwater Elevation	Diesel Range Organics	Residual Range Organics	Gasoline Range Organics	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	EDC
		feet	feet	feet	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
01-443 MTCA B Site Specific						500	500	800 1000	0.795	640	800	1600	160	0.481
Benzene (Non Detect)								1000						
Benzene (Detect)								800						
	12/17/2013	-	99.11	17.54	81.57	-	-	<100	<1 ec	<1	<1	<3	-	-
	2/27/2014	-	99.11	16.5	82.61	-	-	<100	<0.35	<1	<1	<3	-	-
	5/20/2014	-	99.11	15.58	83.53	-	-	<100	<1 ec	<1	<1	<3	-	-
	9/2/2014	-	99.11	17.4	81.71	-	-	<100	<0.35	<1	<1	<3	-	<1 ec
	12/22/2014	-	99.11	15.52	83.59	-	-	<100	<0.35	<1	<1	<3	-	<1 ec
	3/20/2015	-	99.11	15.63	83.48	-	-	<100	<0.35 ec	<1	<1	<3	-	<1 ec
	6/26/2015	-	99.11	17.04	82.07	-	-	<100	<0.35	<1	<1	<3	-	<1 ec

ATTACHMENT A

GROUNDWATER SAMPLE COLLECTION FORMS



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mW01A

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: mW01A Time: 1143
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 29 June 2015 Personnel: Larry Nambor

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 34.70 ft Bottom: Hard ^{Semi} Soft Not measured Screen Interval(s): 15-35
 Depth to product: NM ft
 Depth to water: 16.49 ft Intake Depth (BTOC): 19 Begin Purging Well: 1117
 Casing volume: 18.21 ft (H₂O) X 0.16 gal/ft = 2.91 gal. X 3 = 8.73 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1119	16.66		23.03	0.530	0.62	7.00	205	34.4
1122	16.72	0.076	22.34	0.540	0.53	7.02	204	33.1
1125	16.78		22.48	0.536	0.52	7.02	204	32.4
1128	16.83		22.09	0.512	0.45	6.99	205	31.7
1131	16.88		22.14	0.491	0.45	6.94	203	32.3
1134	16.93		22.44	0.484	0.45	6.92	202	32.3
1137	16.97		22.35	0.481	0.43	6.92	202	32.9
1140	17.03		22.38	0.477	0.42	6.90	202	33.5

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw02

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: mw02 Time: 1340
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 26 June 2015 Personnel: Harry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Eats Stripped Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 32.81 ft Bottom: Hard Soft Not measured Screen Interval(s): 15-35
 Depth to product: NM ft
 Depth to water: 15.84 ft Intake Depth (BTOC): _____ Begin Purging Well: 1320
 Casing volume: 16.97 ft (H₂O) X 0.116 gal/ft = 2.72 gal. X 3 = 8.16 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: _____

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1322	15.94		23.79	0.510	1.84	6.54	180	34.6
1325	15.97	0.070	22.98	0.520	1.61	6.53	181	33.4
1328	15.99		23.56	0.520	1.65	6.52	183	30.5
1331	16.03		23.74	0.516	1.60	6.53	184	29.0
1334	16.07		23.71	0.523	1.44	6.55	184	28.3
1337	16.12		23.55	0.532	1.27	6.57	186	27.6

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4 <u>8</u>	HCl	<u>No</u> 0.45 0.10	NWTPH-GX, BTEX, Etc
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW03

Project Name (Number): TOC Seattle - Ballard (015443) Sample I.D.: MW03 Time: 1337/1357
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: MW99 Time: 1342/1412
 Date: 29 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 35.28 ft Bottom: Hard Soft Not measured Screen Interval(s): 15-38
 Depth to product: NM ft
 Depth to water: 16.86 ft Intake Depth (BTOC): 19 Begin Purging Well: 1337
 Casing volume: 18.42 ft (H₂O) X 0.16 gal/ft = 2.95 gal. X 3 = 8.85 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: Hydrocarbon odor

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1339	17.09		24.90	0.620	0.66	6.79	149	45.4
1342	17.14	0.084	22.21	0.610	0.46	6.81	149	43.5
1345	17.20		20.66	0.620	0.43	6.82	149	41.1
1348	17.27		20.74	0.622	0.26	6.83	147	38.7
1351	17.31		20.34	0.636	0.27	6.84	144	38.4
1354	17.34		20.32	0.635	0.24	6.84	143	38.4

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3 / 4 (6)	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW04

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: MW04 Time: 1446
 Hydrocon Project Number: 124-806 Field Duplicate I.D.: _____ Time: _____
 Date: 24 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Stripped ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 33.97 ft Bottom: Hard Soft Not measured Screen Interval(s): 15-35
 Depth to product: NM ft
 Depth to water: 16.97 ft Intake Depth (BTOC): 19 Begin Purging Well: 1426
 Casing volume: _____ ft (H₂O) X 0.16 gal/ft = _____ gal. X 3 = _____ gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: H₂S

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1428	17.10		20.66	0.703	1.44	6.92	197	54.7
1431	17.23	0.092	20.28	0.695	0.45	6.92	193	44.8
1434	17.15		20.18	0.697	0.30	6.92	190	40.9
1437	17.21		20.05	0.698	0.25	6.91	183	39.6
1440	17.23		19.98	0.686	0.24	6.91	182	39.5
1443	17.27		19.77	0.687	0.23	6.92	179	39.1

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw05A

Project Name (Number): TOC Seattle-Ballard (01-443)
 Hydrocon Project Number: 14-846
 Date: 26 June 2015

Sample I.D.: mw05A Time: 1259
 Field Duplicate I.D.: _____ Time: _____
 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Stripped ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments _____

PURGING INFORMATION

Total well depth: 34.72 ft Bottom: Hard ^{semi}Soft Not measured Screen Interval(s): 20-35
 Depth to product: NM ft
 Depth to water: 17.09 ft Intake Depth (BTOC): 20 Begin Purging Well: 1239
 Casing volume: 17.63 ft (H₂O) X 0.16 gal/ft = 2.82 gal. X 3 = 8.46 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: H₂S

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1241	17.29		24.40	0.857	0.50	7.02	134	49.9
1244	17.31	0.078	24.40	0.869	0.47	7.04	133	45.5
1247	17.38		24.18	0.869	0.40	7.05	130	41.8
1250	17.37		23.88	0.859	0.34	7.06	128	43.0
1253	17.39		23.49	0.869	0.29	7.08	125	45.2
1256	17.41		23.51	0.862	0.27	7.07	123	49.1

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4 (6)	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb-
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw06

Project Name (Number): roc Seattle-Ballard (01-443) Sample I.D.: mw06 Time: 1400
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 24 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: stripped ears/Broken mon. lid Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments _____

PURGING INFORMATION

Total well depth: 20.13 ft Bottom: Hard Soft Not measured Screen Interval(s): 10-20
 Depth to product: NM ft
 Depth to water: 15.41 ft Intake Depth (BTOC): 18 Begin Purging Well: 1340
 Casing volume: 4.72 ft (H₂O) X 0.16 gal/ft = 0.76 gal. X 3 = 2.28 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"=1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (±10% or ≤10)
1342	15.55		21.11	0.781	2.62	6.64	219	151
1345	15.65	0.082	18.73	0.785	0.62	@ 6.86.48	217	133
1348	15.71		19.03	0.783	0.46	6.46	216	124
1351	15.82		18.80	0.787	0.40	6.45	216	125
1354	15.87		18.71	0.783	0.39	6.43	216	124
1357	15.96		18.55	0.787	0.36	6.43	215	115

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4 (6)	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW07

Project Name (Number): TOC Seattle-Ballard (01-443) Sample I.D.: MW07 Time: 1303
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 24 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Broken ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 20.14 ft Bottom: Hard Soft Not measured Screen Interval(s): 10-20
 Depth to product: NM ft
 Depth to water: 16.10 ft Intake Depth (BTOC): 19 Begin Purging Well: 1240
 Casing volume: 4.04 ft (H₂O) X 0.16 gal/ft = 0.65 gal. X 3 = 1.95 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: _____

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1242	16.20		21.35	0.601	2.32	6.72	218	67.0
1245	16.29	0.084	19.58	0.558	1.11	6.69	217	54.9
1248	16.37		19.58	0.553	1.07	6.67	217	47.4
1251	16.43		19.32	0.539	1.23	6.64	217	45.6
1254	16.50		19.25	0.513	1.40	6.63	217	43.9
1257	16.55		19.04	0.515	1.43	6.63	217	42.5
1300	16.65		18.99	0.519	1.61	6.64	218	41.0

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EPC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw08

Project Name (Number): TOE Seattle-Ballard (01-443) Sample I.D.: mw08 Time: 12/19
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 24 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Broken ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 35.10 ft Bottom: Hard ^{semi}Soft Not measured Screen Interval(s): 15-35
 Depth to product: NM ft
 Depth to water: 16.27 ft Intake Depth (BTOC): 19 Begin Purging Well: 1159
 Casing volume: 18.83 ft (H₂O) X 0.16 gal/ft = 3.01 gal. X 3 = 9.03 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1201	16.46		22.27	0.569	1.96	6.88	218	155
1204	16.50	0.096	21.15	0.566	0.38	6.91	213	127
1207	16.61		21.78	0.562	0.32	6.92	211	118
1210	16.67		21.69	0.568	0.30	6.92	210	119
1213	16.69		21.33	0.569	0.26	6.91	208	119
1216	16.72		21.19	0.565	0.25	6.91	208	119

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: Iron fouling

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/16	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW09

Project Name (Number): TOC Seattle-Ballard (01-443) Sample I.D.: MW09 Time: 1049
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 24 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: stripped ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 20.14 ft Bottom: Hard Soft Not measured Screen Interval(s): 10-20
 Depth to product: nm ft
 Depth to water: 12.13 ft Intake Depth (BTOC): 15 Begin Purging Well: 1029
 Casing volume: 8.01 ft (H₂O) X 0.16 gal/ft = 1.28 gal. X 3 = 3.84 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: hydrocarbon odor
no sheen

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1031	12.52		20.61	0.506	0.90	6.51	188	69.2
1034	12.58	0.092	20.17	0.478	0.51	6.51	191	58.0
1037	12.65		20.44	0.478	0.41	6.53	190	48.3
1040	12.70		20.41	0.478	0.39	6.53	190	47.8
1043	12.77		20.28	0.473	0.35	6.53	189	48.0
1046	12.82		20.13	0.474	0.31	6.53	188	47.9

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EPC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW10Project Name (Number): 700 Seattle - Ballard (01-443)
Hydrocon Project Number: 14-806
Date: 24 June 2015Sample I.D.: MW10 Time: 1125
Field Duplicate I.D.: _____ Time: _____
Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Stripped/broken ears Water in Monument
Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
Headspace reading: Not measured PID Reading _____ ppm Odor: _____
Well diameter: 2-inch 4-inch 6-inch Other: _____
Comments _____

PURGING INFORMATION

Total well depth: 20.13 ft Bottom: Hard Soft Not measured Screen Interval(s): 10-20
Depth to product: NM ft
Depth to water: 14.14 ft Intake Depth (BTOC): 17 Begin Purging Well: 1105
Casing volume: 5.99 ft (H₂O) X 0.16 gal/ft = 0.96 gal. X 3 = 2.88 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1107	14.27		20.43	0.537	2.95	6.78	213	59.5
1110	14.30	0.060	19.20	0.543	1.17	6.78	212	53.8
1113	14.35		20.05	0.530	0.80	6.77	213	44.6
1116	14.39		20.58	0.534	0.72	6.77	213	46.5
1119	14.45		20.43	0.536	0.89	6.77	214	47.0
1122	14.52		20.28	0.537	0.87	6.78	214	47.2

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4 (8)	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW11A

Project Name (Number): TDC Seattle - Ballard (01-443) Sample I.D.: MW11A Time: 1109
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 26 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 20.18 ft Bottom: Hard Soft Not measured Screen Interval(s): 5-20
 Depth to product: NM ft
 Depth to water: 15.86 ft Intake Depth (BTOC): 18 Begin Purging Well: 1049
 Casing volume: _____ ft (H₂O) X 0.16 gal/ft = _____ gal. X 3 = _____ gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1051	16.02		22.17	0.844	3.10	6.70	211	42.9
1054	16.09	0.066	21.91	0.850	2.80	6.72	211	39.1
1057	16.13		21.91	0.856	3.00	6.72	210	35.8
1100	16.18		21.74	0.857	3.05	6.72	210	34.9
1103	16.25		21.60	0.853	3.14	6.72	210	33.4
1106	16.32		21.67	0.859	3.01	6.72	210	32.4

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.
 Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw12

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: mw12 Time: 1028
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 26 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: Stripped ears Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments _____

PURGING INFORMATION

Total well depth: 18.98 ft Bottom: Hard Soft Not measured Screen Interval(s): 5-20
 Depth to product: NM ft
 Depth to water: 16.79 15.79 ft Intake Depth (BTOC): 17.5 Begin Purging Well: 1009
 Casing volume: 3.19 ft (H₂O) X 0.16 gal/ft = 0.51 gal. X 3 = 1.53 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1010	15.93		20.85	0.457	1.60	6.36	212	126
1013	15.97	0.062	20.29	0.456	1.38	6.36	213	114
1016	16.08 16.02		20.57	0.454	1.44	6.37	213	110
1019	16.08		20.49	0.455	1.64	6.36	213	104
1022	16.16		20.25	0.459	1.79	6.36	213	90.2
1025	16.21		20.04	0.460	1.77	6.36	213	84.7

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.
 Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3 / 4 <u>6</u>	HCl	<u>No</u> 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW13

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: MW13 Time: 1159
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 26 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 18.66 ft Bottom: Hard ^{Semi} Soft Not measured Screen Interval(s): 5-20
 Depth to product: NM ft
 Depth to water: 16.32 ft Intake Depth (BTOC): 18 Begin Purging Well: 1139
 Casing volume: 2.34 ft (H₂O) X 0.16 gal/ft = 0.37 gal. X 3 = 1.11 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"=1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (±10% or ≤10)
1141	16.72		21.44	0.489	1.07	6.12	210	202
1144	16.77	0.070	20.88	0.475	1.08	6.13	210	158
1147	16.84		21.10	0.475	1.15	6.14	210	164
1150	16.91		20.83	0.473	1.23	6.15	210	171
1153	16.95		20.54	0.477	1.22	6.15	210	172
1156	16.98		21.32	0.473	1.25	6.15	210	165

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4 (6)	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: mw14Project Name (Number): Joe Seattle - Ballard (01-443)
Hydrocon Project Number: 14-806
Date: 29 June 2015Sample I.D.: mw14 Time: 1229
Field Duplicate I.D.: _____ Time: _____
Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
Headspace reading: Not measured PID Reading _____ ppm Odor: _____
Well diameter: 2-inch 4-inch 6-inch Other: _____
Comments _____

PURGING INFORMATION

Total well depth: 19.84 ft Bottom: Hard Soft Not measured Screen Interval(s): 5-20
Depth to product: NM ft
Depth to water: 14.76 ft Intake Depth (BTOC): 17 Begin Purging Well: 1209
Casing volume: 5.08 ft (H₂O) X 0.17 gal/ft = 0.81 gal. X 3 = 2.43 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1211	14.86		21.58	0.422	3.308	6.20	203	40.5
1214	14.91	0.076	20.68	0.427	3.04	6.21	202	36.1
1217	14.96		20.35	0.427	3.00	6.22	202	33.6
1220	15.04		20.19	0.424	3.11	6.22	202	31.6
1223	15.07		20.26	0.421	3.14	6.22	202	31.1
1226	15.14		20.47	0.420	3.32	6.21	202	29.9

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3 / 4 / 6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____



GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW16

Project Name (Number): TOC Seattle - Ballard (01-443) Sample I.D.: MW16 Time: 1049
 Hydrocon Project Number: 14-806 Field Duplicate I.D.: _____ Time: _____
 Date: 29 June 2015 Personnel: Larry Namba

WELL INFORMATION

Monument condition: Good Needs repair: _____ Water in Monument
 Well cap condition: Good Replaced Needs Replacement Surface Water Well Infiltration
 Headspace reading: Not measured PID Reading _____ ppm Odor: _____
 Well diameter: 2-inch 4-inch 6-inch Other: _____
 Comments: _____

PURGING INFORMATION

Total well depth: 19.46 ft Bottom: Hard Soft Not measured Screen Interval(s): 5-20
 Depth to product: NM ft
 Depth to water: 13.50 ft Intake Depth (BTOC): 16 Begin Purging Well: 1029
 Casing volume: 5.96 ft (H₂O) X 0.16 gal/ft = 0.95 gal. X 3 = 1.95 gal.
 Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type Peristaltic Centrifugal Dedicated Bladder Non-Dedicated Bladder Other _____
 Bailer type: _____ Water Disposal: Drummed Remediation System Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min) (0.100-0.500)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1031	13.60		20.67	0.274	4.82	5.91	216	39.4
1034	13.66	0.086	19.10	0.209	4.89	6.02	212	34.2
1037	13.72		19.19	0.202	4.71	6.02	213	30.2
1040	13.78		18.65	0.200	4.60	6.05	212	28.1
1043	13.84		18.51	0.199	4.63	6.07	212	26.7
1046	13.91		18.52	0.198	4.64	6.07	212	25.6

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.

Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis Requested
40 ml VOA	3/4/6	HCl	No 0.45 0.10	NWTPH-GX, BTEX, EDC
500 ml AGB	1	None	No 0.45 0.10	NWTPH-Dx
500 ml Poly	1	HNO ₃	No 0.45 0.10	Dissolved Pb
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

ATTACHMENT B

LAB REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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July 2, 2015

Craig Hultgren, Project Manager
HydroCon
510 Allen St, Suite B
Kelso, WA 98626

Dear Mr. Hultgren:

Included are the results from the testing of material submitted on June 29, 2015 from the TOC_01-443, WORFDB8 F&BI 506542 project. There are 27 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Rob Honsberger, Allison Greiner
HDC0702R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 29, 2015 by Friedman & Bruya, Inc. from the HydroCon TOC_01-443, WORFDB8 F&BI 506542 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>HydroCon</u>
506542 -01	MW01A
506542 -02	MW02
506542 -03	MW03
506542 -04	MW04
506542 -05	MW05A
506542 -06	MW06
506542 -07	MW07
506542 -08	MW08
506542 -09	MW09
506542 -10	MW10
506542 -11	MW11A
506542 -12	MW12
506542 -13	MW13
506542 -14	MW14
506542 -15	MW15A
506542 -16	MW16
506542 -17	MW99

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/15
Date Received: 06/29/15
Project: TOC_01-443, WORFDB8 F&BI 506542
Date Extracted: 06/30/15
Date Analyzed: 06/30/15

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (% Recovery) (Limit 51-134)
MW01A 506542-01	<100	99
MW02 506542-02	<100	99
MW03 506542-03	3,300	106
MW04 506542-04	190	106
MW05A 506542-05	<100	96
MW06 506542-06	<100	98
MW07 506542-07	<100	96
MW08 506542-08	<100	103
MW09 506542-09	7,000	115
MW10 506542-10	<100	99
MW11A 506542-11	<100	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/15

Date Received: 06/29/15

Project: TOC_01-443, WORFDB8 F&BI 506542

Date Extracted: 06/30/15

Date Analyzed: 06/30/15

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW12 506542-12	<100	101
MW13 506542-13	<100	102
MW14 506542-14	<100	101
MW15A 506542-15	<100	101
MW16 506542-16	<100	101
MW99 506542-17	3,400	107
Method Blank 05-1191 MB	<100	96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW01A	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-01
Date Analyzed:	06/29/15	Data File:	062931.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW02	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-02
Date Analyzed:	06/29/15	Data File:	062932.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW03	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-03
Date Analyzed:	06/29/15	Data File:	062933.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	109	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	310 ve
Toluene	2.0
Ethylbenzene	55
m,p-Xylene	45
o-Xylene	2.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW03	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-03 1/10
Date Analyzed:	06/30/15	Data File:	063006.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<10
Benzene	340
Toluene	<10
Ethylbenzene	50
m,p-Xylene	42
o-Xylene	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW04	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-04
Date Analyzed:	06/29/15	Data File:	062934.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW05A	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-05
Date Analyzed:	06/29/15	Data File:	062935.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW06	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-06
Date Analyzed:	06/29/15	Data File:	062936.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW07	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-07
Date Analyzed:	06/29/15	Data File:	062937.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW08	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-08
Date Analyzed:	06/29/15	Data File:	062938.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW09	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-09
Date Analyzed:	06/29/15	Data File:	062939.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	2.8
Toluene	33
Ethylbenzene	360 ve
m,p-Xylene	170
o-Xylene	15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW09	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-09 1/10
Date Analyzed:	06/30/15	Data File:	063007.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<10
Benzene	<3.5
Toluene	33
Ethylbenzene	390
m,p-Xylene	170
o-Xylene	13

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW10	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-10
Date Analyzed:	06/29/15	Data File:	062940.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW11A	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-11
Date Analyzed:	06/30/15	Data File:	062941.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW12	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-12
Date Analyzed:	06/30/15	Data File:	062942.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW13	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-13
Date Analyzed:	06/30/15	Data File:	062943.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW14	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-14
Date Analyzed:	06/30/15	Data File:	062944.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW15A	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-15
Date Analyzed:	06/30/15	Data File:	062945.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW16	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-16
Date Analyzed:	06/30/15	Data File:	062946.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW99	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-17
Date Analyzed:	06/30/15	Data File:	062947.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	108	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	370 ve
Toluene	2.2
Ethylbenzene	52
m,p-Xylene	43
o-Xylene	2.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW99	Client:	HydroCon
Date Received:	06/29/15	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	506542-17 1/10
Date Analyzed:	06/30/15	Data File:	063008.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<10
Benzene	360
Toluene	<10
Ethylbenzene	51
m,p-Xylene	41
o-Xylene	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	HydroCon
Date Received:	Not Applicable	Project:	TOC_01-443, WORFDB8 F&BI 506542
Date Extracted:	06/29/15	Lab ID:	05-1166 mb
Date Analyzed:	06/29/15	Data File:	062927.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/15

Date Received: 06/29/15

Project: TOC_01-443, WORFDB8 F&BI 506542

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TPH AS GASOLINE
USING METHOD NWTPH-Gx**

Laboratory Code: 506522-08 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	95	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/15

Date Received: 06/29/15

Project: TOC_01-443, WORFDB8 F&BI 506542

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 506542-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance Criteria
				Recovery MS	
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	88	70-119
Benzene	ug/L (ppb)	50	<0.35	91	78-108
Toluene	ug/L (ppb)	50	<1	91	73-117
Ethylbenzene	ug/L (ppb)	50	<1	95	71-120
m,p-Xylene	ug/L (ppb)	100	<2	100	63-128
o-Xylene	ug/L (ppb)	50	<1	106	64-129

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	86	88	79-109	2
Benzene	ug/L (ppb)	50	89	90	81-108	1
Toluene	ug/L (ppb)	50	90	90	83-108	0
Ethylbenzene	ug/L (ppb)	50	95	96	83-111	1
m,p-Xylene	ug/L (ppb)	100	100	99	84-112	1
o-Xylene	ug/L (ppb)	50	104	106	81-117	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



506542

Page # 1 of 2

ME 06/29/15

W4

Hydrocon Environmental, LLC
 Report to: Craig Hultgren
 cc: Allison Greiner
 510 Allen Street
 Kelso, Washington 98626
 (360) 703-6079
 CraigH@hydroconllc.net
 allisongreiner@eurekaprojectsolutions.net

Samplers Name: Larry Namba
 Project Name: TOC Holdings Company
 Facility Number: 01-443
 Facility Address: Seattle, WA
 PO Number:
 EDD Requested: EIM

Requested Turn Around Time
 Standard 10 business days
 Rush
 Rush Charges Authorized by:
 Sample Disposal: 30 days Return Will Call

Additional Comments: Sample ID Format: Sample ID-Sample Date
 BTEX+ODEQ-VOC-RBGA
 Oxygenates: Naphthalene, EDG, 1,3,5-Trimethylbenzene

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of containers	ANALYSES REQUESTED							Notes			
						TPH-Dx	TPH-Dx+SG	TPH-Gx	8021B BTEX	8260C Oxygenates	8260C EDC	8260C BETX		200.8 Pb, Total	200.8 Pb, Diss FF	
1 MW01A-	01 A-F	06/29/15	1143	W	6			X								
2 MW02-	02	06/26/15	1340	W	6			X								
3 MW03-	03	06/29/15	1357	W	6			X								
4 MW04-	04	06/29/15	1446	W	6			X								
5 MW05A-	05	06/26/15	1259	W	6			X								
6 MW06-	06	06/24/15	1400	W	6			X								
7 MW07-	07	06/24/15	1303	W	6			X								
8 MW08-	08	06/24/15	1219	W	6			X								
9 MW09-	09	06/24/15	1049	W	6			X								
10 MW10-	10	06/29/15	1125	W	6			X								

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

Relinquished by:
 Received by:
 Relinquished by:
 Received by:

Signature	Print Name	Time	Date
<i>[Signature]</i>	Larry Namba	1530	19 June 2015
<i>[Signature]</i>	Dhan Phcin	1530	29 June 2015

Sample received at 5:00



Hydrocon Environmental, LLC
 Report to: Craig Hultgren
 cc: Allison Greiner
 510 Allen Street
 Kelso, Washington 98626
 (360) 703-6079
 craigh@hydroconllc.net
 allisongreiner@eurekaprojectsolutions.net

Samplers Name: Larry Namba
 Project Name: TOC Holdings Company
 Facility Number: 01-443
 Facility Address: Seattle, WA
 PO Number:
 EDD Requested: EIM

Requested Turn Around Time
 Standard 10 business days
 Rush
 Rush Charges Authorized by:
 Sample Disposal: 30 days Return Will Call

Additional Comments: Sample ID Format: Sample ID-Sample Date
 BTEX+ODEQ VOC = RBCA
 Oxygenates: Naphthalene, EDC, 1,3,5 Trimethylbenzene

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of Containers	ANALYSES REQUESTED							Notes				
						TPH-Dx	TPH-Dx+SG	TPH-Gx	8021B BTEX	8260C Oxygenates	8260C EDC	8260C BETX		200.8 Pb, Total	200.8 Pb, Diss FF		
1 MW11A-	11 A-F	06/29/15	1109	W	6												
2 MW12-	12 A-F	06/29/15	1028	W	6												
3 MW13-	13	06/29/15	1159	W	6												
4 MW14-	14	06/29/15	1229	W	6												
5 MW15A-	15	06/29/15	0954	W	6												
6 MW16-	16	06/29/15	1049	W	6												
7 MW99-	17	06/29/15	1412	W	6												
8																	
9																	
10																	

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Relinquished by:
 Received by:
 Relinquished by:
 Received by:

Signature	Print Name	Time	Date
<i>[Signature]</i>	Larry Namba	1530	29 June 2015
<i>[Signature]</i>	Nolan Phelan	1530	29 June 2015

Samples received at 5 °C