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January 23, 2019
File: 185703911

Attention: Ms. Jennifer Lind / Mr. Frank Winslow
Washington State Department of Ecology
Toxics Cleanup Program, Central Regional Office
1250 West Alder Street, Union Gap, Washington 98903-0009

SUBJECT: Work Plan for Subsurface Investigation with Recent Groundwater Sampling Results

- Site Name - Former 7-Eleven Store No. 25821
- Site Address - 1824 George Washington Way, Richland, WA
- Facility Site # - 77113577
- Cleanup Site # - 6650
- VCP Project # - CE0457

Dear Ms. Lind / Mr. Winslow,

This *Work Plan* has been prepared by Stantec Consulting Services Inc. (Stantec) on behalf of 7-Eleven, Inc. (7-Eleven) for the former 7-Eleven Store No. 25821 located at 1824 George Washington Way, Richland, Washington (the Property; ***Figures 1 and 2***). This *Work Plan* provides revised Property figures and the results of recent groundwater well monitoring and sampling events conducted in 2018 since the May 2017 submittal of Stantec's *Cleanup Action Report* (dated May 25, 2017). For ease of review, updated cumulative groundwater data tables and a complete set of boring logs/groundwater monitoring well details are included.

1.0 PURPOSE OF ADDITIONAL SUBSURFACE INVESTIGATION

As detailed in this *Work Plan*, the purpose of the additional subsurface investigation is to address data gaps identified in the Washington State Department of Ecology's (Ecology) *Further Action Letter* (dated December 13, 2017 and included in ***Appendix A***). Data gaps identified in the 2017 *Further Action Letter* include:

i. "Documents provided in Appendix C of the 2017 report appear to show fueling USTs located east of the former service station building, pump islands to the north and west, and an additional UST (waste oil?) to the south. This documentation does not match the locations of historic Site features shown on current site plans. Additional documentation or clarification is necessary to verify the locations and Contaminants of Potential Concern (COPCs) selected for the investigation are representative of the historic use of the Site property as a service station."

   Stantec Response: Site Plans included herein (***Figures 3 through 8***) have been updated to reflect the locations of the former Wascher Mobil Oil Service Station features present at the Property from 1949-1984. The Wascher Mobil station building (with two service bays inside the south half of the station building) was formerly present in the north-central portion of the Property. Two Wascher Mobil dispenser islands were also present: one north of the former station building and one west of the former station building. Two locations and two generations of Wascher former fuel USTs existed: the first-generation fuel USTs (1949-1977; three 2,000-gallon tanks) were located east of the northeast portion of the former station building and the second-generation fuel

Reference: **Work Plan for Subsurface Investigation with Recent Groundwater Sampling Results**

USTs (1977-1984; number and size unknown) were located northeast of the former Washer station building and east of the northern dispenser island (separate excavation than the first-generation USTs). There appears to have been a separate Wascher UST (possibly containing oil) located at the south end of the former Wascher station building. Additional information regarding COPCs is provided below (see Item iv) and in Sections 2 and 3 of this document.

ii. "More information is necessary to understand the Site groundwater flow direction; and thus, evaluate the sufficiency of the well network to demonstrate compliance with cleanup standards. The 2017 report depicts the flow direction towards both the south and the northwest. However, Site groundwater flow was consistently calculated towards the southeast from at least 1989 to 1997. Regional groundwater is typically influenced by the close proximity to the Columbia River and is expected to flow generally towards the east. A brief review of nearby cleanup sites confirms a groundwater flow direction toward the east and southeast."

Stantec response: The southerly and northwesterly groundwater flow directions at the Property depicted in our 2017 report were re-checked, confirming those directions. For the recently-conducted 2018 quarterly events, Stantec generated groundwater elevation contour maps, all three of which showed the same southerly and northwesterly dual-direction flow. Stantec acknowledges that regional groundwater flow would be influenced by the nearby Columbia River with flow being generally easterly (towards the river) when groundwater is discharging to the river and groundwater flow generally westerly (away from the river) when groundwater is being recharged by the river. The southeasterly flow at the Property from 1989 through 2000 was confirmed. As shown in ***Appendix B***, additional flow directions to the north, west, south, and southwest have been recorded at the Property. Readily-available groundwater elevation contour maps for the following years are provided in ***Appendix B***: 1989-1991, 1996, 2000, 2001, 2003, 2005, 2007, 2010, 2012, quarterly events for 2015-2016, and for the first three quarters 2018. Between 2003 and 2007, several elevation maps were created to fill the timeframe during which monitoring was conducted but for which Stantec could not locate pre-existing elevation contour maps. Due to the lengthy groundwater gauging data base for the Property, not all gauging events were contoured.

iii. "The existing Site data has not characterized soil or groundwater to the east and southeast of the 1940s era UST location. The soil boring log for monitoring well MW-5 documented staining at 16 ft bgs. No sample was submitted for analysis, but this depth is consistent with contamination found elsewhere at the Site."

"Groundwater samples collected from monitoring well MW-5 had a maximum GRPH concentration of 470,000 µg/l in May 1990. MW-5 has been primarily dry during sampling events, and no attempt to investigate further has been made. Note: The groundwater monitoring data from June 1989 to 1991, was not included in the results summary table."

Stantec response: The cumulative soil analytical data table (***Table 1***) has been updated with descriptions of visual observations of impact (from the boring logs or report text) to reflect soil

conditions at MW-5 and at other early-assessment wells from which soil samples were not collected or analyzed. The early 1989-1991 and the recent 2018 groundwater elevation and sampling data have been added to the cumulative groundwater data table (***Table 2***). As described below in Section 3, additional assessment in the vicinity of MW-5 is planned.

iv. "Inadequate justification has been made for the exclusion of lead, diesel, heavy oil, and nitrates from the list of Site Contaminants of Concern (COCs).

- **Lead** – The 2017 report states the "total lead exceedances observed in February 2014 in well MW-10 and March 2015 in well MW-11 are not representative of lead concentrations in groundwater based on historical groundwater results and dissolved analytical results (February 2016)." Very little data has been collected regarding lead, and more will be necessary to support this conclusion. It is possible the concentrations in groundwater are the result of suspended solids in the samples. It is recommended that analysis for dissolved and total lead be performed during future sampling events.

- **Nitrate** – Nitrate concentration in groundwater exceed both the MTCA Method B CUL and the National Primary Drinking Water Maximum Containment Level for drinking water quality during the September 2014 and June 2015 sampling events. The elevated concentrations are assumed to be the result of interim action subsurface injections, and sufficient monitoring is required to verify nitrate concentrations have decreased to an appropriate level.

- **Diesel and Heavy Oil** – Diesel was not considered a COPC because there was no record of storage or use at the Ste. Heavy oil has never been considered a COPC. However, several soil samples collected during the 2004 and 2015 investigations had reported concentrations of diesel and/or heavy oil below MTCA Method A cleanup levels. The Site was an active service station from the late 1940's, and the use or storage of these products is probable."

Stantec Response: The soil analytical program for the initial May 1989 investigation and the subsequent 2004, 2013, and 2015 assessments included diesel- and oil-range hydrocarbons in addition to the gasoline-related (and lead) COPCs. For groundwater samples, COCs/COPCs only included gasoline-related compounds (including total lead and dissolved lead) because of 7-Eleven's 1984-1989 gasoline-only fuel sales, specifically excluding diesel and oil-related compounds that would be attributed to the former Wascher Mobil Oil service station operation. Since receipt of Ecology's December 13, 2017 *Further Action Letter* and as documented herein, groundwater samples collected during 2018 have been additionally analyzed for diesel, oil, and naphthalenes. During 1st quarter 2018, groundwater samples were also analyzed for nitrate, confirming that nitrate concentrations remain below regulatory thresholds. ***Tables 2 and 3*** have been updated with the most-recent groundwater data (through 3rd Quarter 2018). ***Table 2*** has also been revised to include past dissolved lead results from 2015 and 2016 sampling events

that were inadvertently omitted from the table in the 2017 report but whose laboratory certificates of analyses included those data.

v. "The 2015 confirmatory soil samples are not sufficient to demonstrate soil concentrations are below the direct contact cleanup level for Total Petroleum Hydrocarbons (TPH). The 1989 reports describe a visible smear zone between about 11-14 feet below ground surface (ft bgs) in the open excavation. Only a few soil samples have been collected from this range, but GRPH above MTCA Method A cleanup levels were reported east of the larger tank pit excavation at 12 ft bgs during the 2000 investigation."

Stantec Response: Soil samples from five of the nine soil borings drilled in 2004 did target the 11- to 14-foot depth interval with no petroleum hydrocarbons detected in those samples, including borings GP-5, GP-8, and GP-9 located east and southeast of the larger tank pit excavation. As requested by Ecology and as outlined in Section 3, below, additional soil assessment includes the collection of soil samples from this 11- to 14-foot depth interval from a proposed soil boring to be located east of the larger tank pit.

vi. "The empirical demonstration performed did not sufficiently demonstrate that the characteristics of the Site (e.g. depth to groundwater) are representative of future Site conditions.

Groundwater contaminant concentrations have historically been higher during high water table sampling events; presumably due to exposure to soil contamination in the smear zone. The sampling data collected (both soil and groundwater) does not sufficiently demonstrate that: 1) soil contamination does not exist in the smear zone, and 2) if soil contamination is still present in the smear zone, it will not recontaminate groundwater if the water table rises above the recent average."

Stantec response: Stantec acknowledges groundwater contaminant concentrations have historically been higher during high water table sampling events when groundwater levels were approximately 12.5 to 15 feet bgs; however, those concentrations pre-date the September 2014 BOS-200™ injections. Since that time, groundwater has not revealed gasoline-related impacts. Stantec's planned assessment as outlined in Section 3 will target the 11- to 14-foot depth smear zone. See ***Graphs 2 and 3***.

2.0 RESULTS OF 2018 GROUNDWATER MONITORING AND SAMPLING

Following receipt of Ecology's December 13, 2017 *Further Action Letter*, Stantec resumed quarterly groundwater monitoring and sampling at the Property's existing 12 monitoring wells. During 2018 to date, three events have occurred: February 22-23, 2018 (1Q 2018); June 6-7, 2018 (2Q 2018); and September 12-13, 2018 (3Q 2018).

During each event, the wells are gauged for depth to groundwater and bottom of well casing and following gauging, the wells are purged and sampled using low-flow methods. Groundwater is contained in laboratory-

supplied bottle ware and the containers are labeled, placed in ziplock bags, and stored in a chilled ice chest for transport to a state-certified laboratory under chain-of-custody documentation. Before the start of purging/sampling and in between each well, the purge pump is decontaminated using a three-step cleaning process. New Teflon tubing is used for each well. Purged groundwater and decontamination fluids are contained in labeled 55-gallon DOT-approved plastic drums that are temporary stored at the Property.

In accordance with Ecology's December 13, 2017 letter, groundwater samples collected during 2018 have been analyzed for 7-Eleven gasoline-only and Wascher Mobil Oil service station COPCs: TPH-G, TPH-D, TPH-O, BTEX, EDB, EDC, MTBE, naphthalenes, total lead, and nitrate (1Q 2018).

Results of the three quarterly 2018 monitoring events are provided in ***Tables 2 and 3***. Groundwater elevation contour sketch maps are provided at the end of ***Appendix B***, laboratory certificates of analyses are provided in ***Appendix C***, and groundwater well sampling field sheets are provided in ***Appendix D***. Results are summarized below:

- During the three 2018 events, depth to groundwater ranged from approximately 15.1 to 17.5 feet bgs with shallower groundwater measured during the early June 2018 event (following winter melt and spring rain) and deeper groundwater measured in late February 2018 (during winter).
- During each of the three 2018 events, MW-5 remained dry, consistent with prior events.
- During each of the three 2018 events, groundwater exhibited dual-flow to the northwest and to the south, consistent with prior 2015-2016 events.
- During 1Q 2018, TPH-D was detected at 1,080 ug/L (above the MTCA Method A cleanup level of 500 ug/L) and TPH-O was detected at 427 ug/L (below the MTCA Method A cleanup level of 500 ug/L) at MW-3, located near the former Wascher Mobil Oil suspect oil UST at the south end of the former Wascher station building. Stantec attributes these detections to the former Wascher Mobil Oil operations (1949-1984). These concentrations were <u>not</u> reproduced during 2Q 2018 or 3Q 2018.
- During 2Q 2018, total lead was detected at 16.5 ug/L at MW-8, above the MTCA Method A cleanup level of 15 ug/L. Because total lead was also detected in laboratory's internal QA/QC samples during this 2Q 2018, Stantec attributes this concentration to laboratory error.
- <u>No</u> gasoline hydrocarbons were detected in any groundwater sample during any of the three sampling 2018 events: no TPH-G, no BTEX, no EDB, no EDC, no MTBE, and no naphthalenes.

Quarterly groundwater monitoring and sampling is scheduled to continue through 1Q 2020. As summarized in ***Graphs 2, and 3,*** after BOS-200™ injection in 2014, petroleum hydrocarbons have remained been below MTCA Method A CULs in

3.0 WORKPLAN FOR ADDITIONAL SUBSURFACE INVESTIGATION

In accordance with Ecology's *Further Action Letter*, this Work Plan presents details of additional investigation to be conducted near MW-5 (a well that has been primarily dry since September 1998; located east/southeast of the former 7-Eleven and Wascher fuel USTs); east of the former 7-Eleven and Wascher fuel USTs; and at the former Wascher Mobil Oil suspect oil UST. ***Figure 8*** shows the locations of these four additional borings/groundwater monitoring wells and the purpose of each boring/well is described below.

Boring/Well Identification	Location	Purpose/Target Depth	Additional Comments
Proposed Well MW-5B	Adjacent to MW-5 (a 20-ft-deep well that has been historically dry) and east/southeast of the former 7-11 and former Wascher fuel USTs.	Investigate groundwater conditions in the vicinity of MW-5. Target well depth = 30 feet bgs with estimated screen interval from 10 to 30 feet bgs.	Collect soil samples at 5-ft intervals and continuously from 10 – 15 feet bgs to evaluate possible smear zone, per Ecology's request.
Proposed Boring SB-A	East of the former 7-11 "larger tank pit" and former Wascher fuel USTs.	Investigate vadose and capillary fringe soil conditions. Target boring depth = 20 feet bgs. Collect a groundwater "grab" sample if water is present at 20 feet bgs.	Collect soil samples at 5-ft intervals and continuously from 10 – 15 feet bgs to evaluate possible smear zone, per Ecology's request.
Proposed Boring SB-B	In the vicinity of the former Wascher possible waste oil UST & near MW-3.	Investigate vadose and capillary fringe soil conditions. Target boring depth = 20 feet bgs.	Collect soil samples at 5-ft intervals and continuously from 10 – 15 feet bgs to evaluate possible smear zone, per Ecology's request.
Proposed Well MW-13	Southeast of the former 7-11 and former Wascher Mobil Oil station features in the southeast portion of the facility.	Investigate groundwater conditions downgradient of the former 7-11 and former Wascher features, per Ecology's request; target well depth = 30 feet bgs with estimated screen interval from 10 to 30 feet bgs.	Collect soil samples at 5-ft intervals and continuously from 10 – 15 feet bgs to evaluate possible smear zone, per Ecology's request.

3.1 HEALTH AND SAFETY PLAN (HASP) AND PRE-DRILLING FIELD ACTIVITIES

The existing Health and Safety Plan (HASP) will be updated prior to field work. The proposed boring and monitoring well locations will be marked and the mandatory Call-One notification will be made at least 48 hours prior to drilling. A private utility-locating survey will be conducted prior to drilling.

3.2 BOREHOLE CLEARANCE AND DRILLING/SOIL SAMPLING ACTIVITIES

All borings/monitoring well locations will be pre-cleared using air-vacuum methods to depths of 5 feet bgs.

Drilling will be conducted using a truck-mounted hollow stem auger drill rig. At the start of work and in between boreholes and sampling intervals, all augers and sampling equipment will be decontaminated to minimize cross-contamination. Decontamination fluids and soil cuttings generated during drilling will be contained in DOT-approved 55-gallon drums, labeled, and stored onsite temporarily.

Soil samples will be collected at the intervals noted in the table above using a clean split-spoon sampler. Soil will be logged in accordance with the Unified Soil Classification System (USCS) and will be visually inspected for possible petroleum hydrocarbon impact (staining and/or sheen). Soil will also be field-screened for volatile organic vapors using head-space techniques and a portable, calibrated photo-ionization detector (PID). Soil samples for volatile analyses will be collected in accordance with EPA Soil Sampling Method 5035 using Terracores™. Additional soil (for non-volatile analyses) will be placed in glass jars with Teflon-lined lids. All sample containers will be labeled, placed in ziplock bags, and stored in a chilled ice chest for transport to a WA-state certified laboratory under chain-of-custody documentation.

Following drilling and soil sampling, the two borings SB-A and SB-B will be completely backfilled with a bentonite grout or with bentonite chips, hydrated in place. The tops of the borings will be sealed with asphalt to match the surrounding pavement.

3.3 MONITORING WELL INSTALLATION, DEVELOPMENT, SURVEYING, AND SAMPLING

Following drilling and soil sampling, the two new wells MW-5B and MW-13 will be installed through the annulus of the annulus of the augers with Schedule 40 PC materials. As noted in the table above, it is expected that both wells will be completed with screen (0.010” slots) from 10 to 30 feet bgs and blank riser casing from ground surface to a depth of 10 feet bgs. The wells will be developed with well development water contained and handled as described above. The new wells will be professionally surveyed into the existing network and will be incorporated into the existing quarterly monitoring program.

3.4 SOIL AND GROUNDWATER ANALYTICAL PROGRAM

Soil and groundwater samples will be analyzed for: TPH-G, TPH-D, TPH-O, BTEX, EDB, EDC, MTBE, naphthalenes, and total lead. Groundwater samples will also be analyzed for dissolved lead.

3.5 DATA EVALUATION AND REPORTING

Results of the additional investigation will be submitted to Ecology with completed boring logs and well construction details, well survey data, tabulated soil and groundwater data, soil and groundwater data plotted on figures, and our conclusions of the investigation.

If you have any questions regarding this Work Plan or the 2018 groundwater well data submitted herein, please contact the undersigned.

Reference: **Work Plan for Subsurface Investigation with Recent Groundwater Sampling Results**

Regards,

Stantec Consulting Services Inc.

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Attachments:

Table 1 – Cumulative Soil Analytical Data
Table 2 – Cumulative Groundwater Gauging & Petroleum Hydrocarbon Analytical Data
Table 3 – Cumulative Groundwater Chemical Indicator Analytical Data

Figure 1 – Location Map
Figure 2 – Vicinity Map
Figure 3a – Site Plan with Historic Features
Figure 3b – Site Plan with Historic Features, Soil Borings, & Groundwater Monitoring Wells
Figure 4 – Historic Soil Analytical Data, 2000-2004
Figure 5 – Soil Analytical Data, October 2013
Figure 6 – Soil Analytical Data, July 2015
Figure 7 – Groundwater Analytical Data, March 2015 – February 2016
Figure 8 – Proposed Soil Borings and Groundwater Monitoring Well Locations

Graph 1 – GW Flow Direction Rose Diagram
Graph 2 - MW-6 Dissolved TPH-G Concentration vs. Time
Graph 3 - MW-7 Dissolved TPH-G Concentration vs. Time

Appendix A – Ecology's Further Action Letter (dated December 13, 2017)
Appendix B – Groundwater Elevation Contour Maps (1989-Present)
Appendix C – Groundwater Laboratory Certificates – 1Q 2018, 2Q 2018, and 3Q 2018
Appendix D – Groundwater Field Sampling Sheets – 1Q 2018, 2Q 2018, and 3Q 2018
Appendix E – Existing Boring Logs

TABLES

TABLE 1 - CUMULATIVE SOIL ANALYTICAL RESULTS

Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352

All concentrations in milligrams per kilogram (mg/kg)

	Sample Identification	Date	PID (ppmv)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Total Lead	MTBE	EDB	EDC	Naphthalene	2-Methyl-naphthalene	1-Methyl-naphthalene
May 1989: Kleinfelder, Underground Fuel Storage Tank Closure Chronology, Store #25821, 1824 George Washington Way, Richland, WA																	
	SS0105129A-11'	5/12/1989	--	**<0.05**	**48**	**59**	**1,000**	**12,000**	<100	--	<0.10	--	--	--	--	--	--
	SP0105129A*	5/12/1989	--	<0.025	<0.025	<0.025	<0.025	47	<5	--	--	--	--	--	--	--	--
June 1989: Kleinfelder, Subsurface Assessment, 1824 George Washington Way, Richland, WA; no soil samples collected or submitted for laboratory analytical testing.																	
	MW-1	6/29/1989	5-, 10-, 15-, and 20-foot soil samples collected for lithologic logging purposes and field screening; no observed impacts.														
	MW-2	6/29/1989	5-, 10-, 15-, and 20-foot soil samples collected for lithologic logging purposes and field screening; no observed impacts.														
	MW-3	6/30/1989	5-, 10-, 15-, and 20-foot soil samples collected for lithologic logging purposes and field screening; no observed impacts.														
	MW-4	6/30/1989	no soil samples collected for field-screening (assumed by Kleinfelder to be upgradient of former 7-Eleven USTs); no observed impacts in drill cuttings.														
	MW-5	6/30/1989	15- and 20-foot soil samples collected for lithologic logging purposes & field screening; 15' - 16' showed staining & odors; 20-foot sample showed no impacts.														
May 1990: Kleinfelder, Subsurface Assessment, 1824 George Washington Way, Richland, WA; no soil samples collected or submitted for laboratory analytical testing; no impacts observed at the 5- or 10-foot depths.																	
	MW-6-15'	5/23/1990	505	dark-stained soil and "strong gasoline odor" observed at this 15-foot depth.													--
	MW-6-20'	5/23/1990	144	dark-stained soil and "gasoline odor, not as strong as 15-foot sample" observed at this 20-foot depth.													--
July 1996: Fluor-Daniel GTI, Additional Well Installation, Southland Site #25821, 1824 George Washington Way, Richland, WA; MW-7 drilled to a depth of 21' bgs; 6- and 11-foot samples composited by laboratory.																	
	MW-7-6' & 11'	7/25/1996	**--**	**<0.05**	<0.05	<0.05	<0.10	<5.0	--	--	<10	--	--	--	--	--	--
	MW-7-13'	7/25/1996	**--**	**<0.05**	<0.05	<0.05	<0.10	<5.0	--	--	<10	--	--	--	--	--	--
December 2000: IT Corporation, Subsurface Assessment, 1824 George Washington Way, Richland, Washington																	
	B-1-16'	12/27/2000	--	**12**	**22**	**27**	<50	**4,600**	--	--	--	--	--	--	--	--	--
	B-1-18'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
	B-2-16'	12/27/2000	--	**11**	**19**	**23**	<50	**3,800**	--	--	--	--	--	--	--	--	--
	B-3-16'	12/27/2000	--	**4**	**16**	**12**	**23**	**3,700**	--	--	--	--	--	--	--	--	--
	B-3-18'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
	B-4-16'	12/27/2000	--	**4.2**	6.6	**10**	**35**	**2,000**	--	--	--	--	--	--	--	--	--
	B-4-18'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
	B-5-16'	12/27/2000	--	**2.6**	6.6	5.5	**30**	**1,000**	--	--	--	--	--	--	--	--	--
	B-5-18'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
	B-6-12'	12/27/2000	--	**<0.05**	0.34	<0.05	**45**	**1,400**	--	--	--	--	--	--	--	--	--
	B-6-16'	12/27/2000	--	**<0.05**	0.2	0.94	7.8	**150**	--	--	--	--	--	--	--	--	--
	B-7-12'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
	B-7-16'	12/27/2000	--	**4.8**	**28**	**27**	<50	**3,900**	--	--	--	--	--	--	--	--	--
	B-8-16'	12/27/2000	--	**<0.05**	<0.05	<0.05	<0.05	<10	--	--	--	--	--	--	--	--	--
~April 2001: IT Corporation, Additional Well Installation, 1824 George Washington Way, Richland, WA; can only locate boring logs for these two wells, cannot find any other data.																	
	MW-8	~April 2001	--	well bore drilled to a depth of 27'; completed with 15' screen (12' - 27' bgs) and 12 feet of blank riser casing (0 to 12' bgs).													
	AS-1	~April 2001	--	well bore drilled to a depth of 30' bgs; completed with 2' screen (28' - 30' bgs; for sparging) and 28 feet of blank riser casing (0 to 28' bgs).													
July 2004: SECOR International, Limited Phase II Environmental Site Assessment, 1824 George Washington Way, Richland, WA																	
	GP-1-5'	7/9/2004	23	<0.011	<0.055	<0.055	<0.11	<5.5	<280	1,300	--	--	--	--	--	--	--
	GP-1-10'	7/9/2004	17	<0.011	<0.053	<0.053	<0.106	<5.3	<26	<53	--	--	--	--	--	--	--
	GP-1-16'	7/9/2004	21	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
	GP-2-5'	7/9/2004	42	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
	GP-2-10'	7/9/2004	40	<0.011	<0.055	<0.055	<0.11	<5.5	<28	<55	--	--	--	--	--	--	--
	GP-2-15'	7/9/2004	32	<0.011	<0.055	<0.055	<0.11	<5.5	<28	<55	--	--	--	--	--	--	--
	GP-2-18'	7/9/2004	16	<0.011	<0.054	<0.054	<0.108	<5.4	<27	110	--	--	--	--	--	--	--
	GP-3-5'	7/9/2004	1	<0.011	<0.055	<0.055	<0.11	<5.5	<28	210	--	--	--	--	--	--	--
	GP-3-10'	7/9/2004	1	<0.011	<0.057	<0.057	<0.114	<5.7	<28	<57	--	--	--	--	--	--	--
	GP-3-12'	7/9/2004	1.5	<0.011	<0.056	<0.056	<0.112	<5.6	<140	670	--	--	--	--	--	--	--
	GP-4-5'	7/9/2004	1	<0.010	<0.052	<0.052	<0.104	<5.2	<26	<52	--	--	--	--	--	--	--
	GP-4-10'	7/9/2004	0.0	<0.011	<0.056	<0.056	<0.112	<5.6	<140	500	--	--	--	--	--	--	--
	GP-4-15'	7/9/2004	0.0	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
	GP-5-10'	7/9/2004	0.3	<0.010	<0.052	<0.052	<0.104	<5.2	<26	<52	--	--	--	--	--	--	--
	GP-5-14'	7/9/2004	2	<0.013	<0.063	<0.063	<0.126	<6.3	<31	<63	--	--	--	--	--	--	--
	GP-6-5'	7/9/2004	5	<0.011	<0.056	<0.056	<0.112	<5.6	<28	<56	--	--	--	--	--	--	--
	GP-6-10'	7/9/2004	2	<0.011	<0.056	<0.056	<0.112	<5.6	57	91	--	--	--	--	--	--	--
	GP-6-12'	7/9/2004	68	<0.011	<0.056	<0.056	<0.112	<5.6	440	<56	--	--	--	--	--	--	--
	GP-7-5'	7/9/2004	0.5	<0.012	<0.060	<0.060	<0.12	<6.0	<30	<60	--	--	--	--	--	--	--
	GP-7-10'	7/9/2004	1	<0.010	<0.052	<0.052	<0.104	<5.2	<26	<52	--	--	--	--	--	--	--
	GP-7-12'	7/9/2004	1	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses			**--**	**0.03**	**7**	**6**	**9**	**100** [1]	**2,000**	**2,000**	**250**	**0.1**	**0.005**	**--**	**5**	**--**	**--**
MTCA Method B Soil Cleanup Levels for Unrestricted Land Uses			**--**	**18**	**6,400**	**8,000**	**16,000**	**1,000**			**250**	**556**	**0.5**	**11**	**--**	**--**	**34.5**

TABLE 1 - CUMULATIVE SOIL ANALYTICAL RESULTS

Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352

All concentrations in milligrams per kilogram (mg/kg)

	Sample Identification	Date	PID (ppmv)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Total Lead	MTBE	EDB	EDC	Naphthalene	2-Methyl-naphthalene	1-Methyl-naphthalene
	GP-8-5'	7/9/2004	0.5	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
	GP-8-10'	7/9/2004	0.4	<0.011	<0.053	<0.053	<0.106	<5.3	<26	<53	--	--	--	--	--	--	--
	GP-9-5'	7/9/2004	0.8	<0.011	<0.055	<0.055	<0.11	<5.5	<28	<55	--	--	--	--	--	--	--
	GP-9-10'	7/9/2004	0.4	<0.011	<0.056	<0.056	<0.112	<5.6	<28	<56	--	--	--	--	--	--	--
	GP-9-14'	7/9/2004	1.3	<0.011	<0.054	<0.054	<0.108	<5.4	<27	<54	--	--	--	--	--	--	--
October 2013: Stantec Consulting Services, Subsurface Investigation and Well Installation, 1824 George Washington Way, Richland, WA																	
	MW-9-5'	10/02/13	0.0	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	--	--	--	--	--	--	--
	MW-9-20'	10/02/13	4.2	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	2.53	<0.05	<0.005	<0.05	<0.01	<0.01	<0.01
	MW-9-25'	10/02/13	0.0	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	--	--	--	--	--	--	--
	MW-10-10'	10/02/13	0.1	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	--	--	--	--	--	--	--
	MW-10-15'	10/02/13	0.0	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	2.19	<0.05	<0.005	<0.05	<0.01	<0.01	<0.01
	MW-11-10'	10/02/13	0.0	<0.02	<0.02	<0.02	<0.06	<2	<50	<250	--	--	--	--	--	--	--
	MW-11-15'	10/02/13	0.0	<0.02	<0.02	<0.02	<0.06	5.1	<50	<250	--	--	--	--	--	--	--
	MW-12-5'	10/02/13	31.4	<0.02	<0.02	<0.02	<0.06	12	<50	<250	4.73	<0.05	<0.005	<0.05	<0.01	<0.01	<0.01
	MW-12-15'	10/02/13	1.0	<0.02	<0.02	<0.02	<0.06	4.2	<50	<250	--	--	--	--	--	--	--
July 2015: Stantec Consulting Services, Confirmation Soil Borings, 1824 George Washington Way, Richland, WA																	
	CB-1-10'	07/28/15	0.0	<0.00183	<0.00183	<0.00183	<0.00456	<6.70	4.83	14.0	32.4	<0.00183	<0.00183	<0.00183	<0.00456	--	--
	CB-1-15'	07/28/15	3.6	<0.00199	<0.00199	<0.00199	<0.00497	<5.07	4.57	<4.33	5.63	<0.00199	<0.00199	<0.00199	<0.00497	--	--
	CB-1-20'	07/28/15	1.3	<0.00201	<0.00201	<0.00201	<0.00502	<5.93	<4.00	6.10	4.50	<0.00201	<0.00201	<0.00201	<0.00502	--	--
	CB-2-10'	07/29/15	7.7	<0.00186	<0.00186	<0.00186	<0.00465	<4.53	<4.06	15.8	6.03	<0.00186	<0.00186	<0.00186	<0.00465	--	--
	CB-2-15'	07/29/15	10.5	<0.00229	<0.00229	<0.00229	<0.00571	<5.44	<4.17	6.00	6.23	<0.00229	<0.00229	<0.00229	<0.00571	--	--
	CB-2-20'	07/29/15	2.7	<0.00150	<0.109	<0.109	<0.164	<3.51	6.00	14.0	3.20	<0.00150	<0.0547[a]	<0.00150	<0.274	--	--
	CB-3-5'	07/28/15	0.0	<0.00258	<0.00258	<0.00258	<0.00644	<7.01	<4.00	46.4	4.21	<0.00258	<0.00258	<0.00258	<0.00644	--	--
	CB-3-15'	07/28/15	1.2	<0.00222	<0.00222	<0.00222	<0.00556	**335**	18.1	9.83	6.28	<0.00222	<0.00222	<0.00222	<0.00556	--	--
	CB-3-20'	07/28/15	0.0	<0.00219	<0.00219	<0.00219	<0.00546	<7.59	<4.94	18.2	3.31	<0.00219	<0.00219	<0.00219	<0.441	--	--
	CB-4-5'	07/29/15	0.0	<0.00162	<0.00162	<0.00162	<0.00405	<7.06	<10.0	<10.0	4.85	<0.00162	<0.00162	<0.00162	<0.00405	--	--
	CB-4-18'	07/29/15	2.8	<0.00165	<0.00165	<0.00165	<0.00413	52.8	<4.30	<4.30	3.84	<0.00165	<0.00165	<0.00165	<0.232	--	--
	CB-4-20'	07/29/15	2.5	<0.00197	<0.00197	<0.00197	<0.00493	<2.72	<4.31	<4.31	4.86	<0.00197	<0.00197	<0.00197	<0.00493	--	--
	CB-5-10'	07/29/15	11.3	<0.00229	<0.00229	<0.00229	<0.00573	<5.81	<3.94	<3.94	1.77	<0.00229	<0.00229	<0.00229	<0.00573	--	--
	CB-5-15'	07/29/15	8.5	<0.00238	<0.00238	<0.00238	<0.00595	<5.96	<4.28	<4.28	4.96	<0.00238	<0.00238	<0.00238	<0.00595	--	--
	CB-5-20'	07/29/15	1.3	<0.00199	<0.00199	<0.00199	<0.00498	30.5	<4.62	5.60	3.95	<0.00199	<0.00199	<0.00199	<0.00498	--	--
MTCA Method A Soil Screening Levels for Unrestricted Land Uses			**--**	**0.03**	**7**	**6**	**9**	**100 [1]**	**2,000**	**2,000**	**250**	**0.1**	**0.005**	**--**	**5**	**--**	**--**
MTCA Method B Soil Cleanup Levels for Unrestricted Land Uses			**--**	**18**	**6,400**	**8,000**	**16,000**	**1,000**			**250**	**556**	**0.5**	**11**	**--**	**--**	**34.5**

Notes:

< = result is below laboratory reporting limit

-- = Not Analyzed

bgs = below ground surface

BOLD = Result exceeds MTCA Method A Soil Screening Level

EDB = ethylene dibromide

EDC = ethylene dichloride

MTBE = Methyl-tertiary-butyl-ether

MTCA = Model Toxics Control Act

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020 or 8260.

TPH-D = total petroleum hydrocarbons as diesel by EPA Method 8015M or Ecology method NWTPH-Dx

TPH-G = total petroleum hydrocarbons in the gasoline range by EPA Method 8015M or Ecology method NWTPH-Gx

TPH-O = total petroleum hydrocarbons as heavy oil by Ecology method NWTPH-Dx

ppmv = parts per million by volume

* = stockpile soil sample

1 = Gasoline mixtures without benzene and where the total of ethylbenzene, toluene, and xylene are less than 1% of the gasoline mixture have a cleanup level of 100 mg/kg; all other mixtures are 30 mg/kg.

[a] = The laboratory reporting limit (RL) and the method detection limit (MDL) exceeded the MTCA Method A CUL. Therefore, the method detection limit (MDL), the lower of the two, was reported for this analyte.

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-1	6/30/1989	<0.5	<0.5	<0.5	<1.0	<1,000	<1,000[d]	--	--	--	--	--	--	--	--	--	14.56	347.82
	11/19/1989	<0.5	<0.5	<0.5	<1.0	<500	<500	--	--	--	--	--	--	--	--	--	14.83	347.55
	2/20/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--	--	--	--	--	--	15.07	347.31
	5/23/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--	--	--	--	--	--	14.37	348.01
	1/9/1991	<0.5	<0.5	<0.5	<0.5	<1,000[d]	<1,000[d]	--	--	--	--	--	--	--	--	--	14.81	347.57
362.38	6/24/1997	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.47	348.91
	10/25/2000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	11/22/2000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	4/24/2001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	11/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	3/7/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	9/13/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	12/13/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	3/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	6/6/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	9/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	12/4/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	4/2/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	6/29/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.45	345.93
	10/6/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.50	345.88
	12/23/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	4/7/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.99	346.39
	6/21/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	9/21/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	11/22/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	2/6/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	8/14/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	6/5/2007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.83	345.55
	9/27/2007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.95	345.43
	12/7/2007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	DRY	--
	4/7/2010	<0.20	<1.0	0.20	1.52	<100	--	--	<0.0095	<0.20	<0.20	--	--	--	--	--	17.73	344.65
	12/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.00	345.38
	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.24	345.14
366.11	10/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.75	349.36
	2/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.67	348.44
	7/16/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.90	349.21
	9/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.79	349.32
	12/5/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.33	348.78
	3/19/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.41	348.70
	6/30/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.15	348.96
	9/24/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.91	349.20
	2/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17.52	348.59
	2/21/2018	<1.00	<1.00	<1.00	<3.00	<100	<93	<93	<0.00603[c]	<1.00	<1.00	<0.111	<0.111	<0.111	0.175 [J]	--	17.43	348.68
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.00609[c]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	16.68	349.43
	9/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<95.4	<95.4	<0.00605[c]	<1.00	<1.00	<0.0960	<0.0960	<0.0960	<2.00	--	16.96	349.15
	12/11/2018	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.00997*	<1.00	<1.00	<0.108	<0.108	<0.108	<2.00	--	17.66	348.45
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000 [b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS

Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352

All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-2	6/30/1989	<0.5	<0.5	<0.5	<1.0	<1,000	<1,000[d]	--	--	--	--				--	--	14.44	347.88
	11/19/1989	<0.5	<0.5	<0.5	<1.0	<500	<500	--	--	--	--				--	--	14.68	347.64
	2/20/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.95	347.37
	5/23/1990	<0.5	<0.5	1.5	5.6	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.22	348.10
	1/9/1991	<0.5	<0.5	<0.5	<0.5	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.69	347.63
362.32	9/1/1993	<0.3	<0.3	<0.3	<0.5	<10	--	--	--	--	--				--	--	15.29	347.03
	3/18/1994	<0.3	<0.3	<0.3	<0.5	<10	--	--	--	--	--				--	--	16.11	346.21
	9/19/1994	--	--	--	--	--	--	--	--	--	--				--	--	15.39	346.93
	3/2/1995	--	--	--	--	--	--	--	--	--	--				--	--	17.18	345.14
	8/9/1995	--	--	--	--	--	--	--	--	--	--				--	--	14.63	347.69
	6/13/1996	--	--	--	--	--	--	--	--	--	--				--	--	13.92	348.40
	12/11/1996	--	--	--	--	--	--	--	--	--	--				--	--	14.74	347.58
	6/24/1997	--	--	--	--	--	--	--	--	--	--				--	--	13.40	348.92
	12/30/1997	--	--	--	--	--	--	--	--	--	--				--	--	16.65	345.67
	4/1/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.75	345.57
	6/25/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.95	345.37
	9/24/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.25	346.07
	12/15/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.83	345.49
	3/31/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.95	345.37
	6/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.33	345.99
	9/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	10/25/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.35	345.97
	11/22/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/7/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/13/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/13/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/20/2003	--	--	--	--	--	--	--	--	--	--				--	--	17.42	344.90
	6/6/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.23	345.09
	9/18/2003	--	--	--	--	--	--	--	--	--	--				--	--	17.50	344.82
	12/4/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/2/2004	--	--	--	--	--	--	--	--	--	--				--	--	18.21	344.11
	6/29/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.66	344.66
	10/6/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.84	344.48
	12/23/2004	--	--	--	--	--	--	--	--	--	--				--	--	18.41	343.91
	4/7/2005	--	--	--	--	--	--	--	--	--	--				--	--	18.96	343.36
	6/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	11/22/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	2/6/2006	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	18.20	344.12
	5/30/2006	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.90	344.42
	8/14/2006	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/10/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/5/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.00	346.32
	9/27/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.95	345.37
	12/7/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/7/2010	<0.20	<1.0	<0.20	<0.60	<100	--	--	<0.0095	<0.20	<0.20				--	--	17.74	344.58
	12/12/2012	--	--	--	--	--	--	--	--	--	--				--	--	17.02	345.30
	2/27/2013	--	--	--	--	--	--	--	--	--	--				--	--	17.25	345.07
366.10	10/17/2013	--	--	--	--	--	--	--	--	--	--				--	--	16.80	349.30
	2/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	17.70	348.40
	7/16/2014	--	--	--	--	--	--	--	--	--	--				--	--	16.97	349.13
	9/8/2014	--	--	--	--	--	--	--	--	--	--				--	--	16.86	349.24
	12/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	17.37	348.73
	3/19/2015	--	--	--	--	--	--	--	--	--	--				--	--	17.49	348.61
	6/30/2015	--	--	--	--	--	--	--	--	--	--				--	--	17.21	348.89
	9/24/2015	--	--	--	--	--	--	--	--	--	--				--	--	16.96	349.14
	2/9/2016	--	--	--	--	--	--	--	--	--	--				--	--	17.54	348.56
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.00629[C]	<1.00	<1.00	<0.109	<0.109	<0.109	0.191[J]	--	17.46	348.64
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	<100	<100	<0.00602[C]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	16.78	349.32
	9/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<97.8	<97.8	<0.00600[C]	<1.00	<1.00	<0.0965	<0.0965	<0.0965	<2.00	--	17.01	349.09
	12/11/2018	<1.00	<1.00	<1.00	<3.00	<100	<105	<105	<0.00994*	<1.00	<1.00	<0.107	<0.107	<0.107	<2.00	--	17.68	348.42
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000[b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS

Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352

All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-3	6/30/1989	<0.5	<0.5	<0.5	0.7	<1,000	<1,000[d]	--	--	--	--				--	--	14.19	347.94
	11/19/1989	<0.5	<0.5	<0.5	<1.0	<500	<500	--	--	--	--				--	--	14.43	347.70
	2/20/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.71	347.42
	5/23/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.06	348.07
	1/9/1991	<0.5	<0.5	<0.5	<0.5	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.42	347.71
362.13	9/1/1993	--	--	--	--	--	--	--	--	--	--				--	--	15.12	347.01
	3/18/1994	<0.3	<0.3	<0.3	<0.5	<10	--	--	--	--	--				--	--	15.84	346.29
	9/19/1994	--	--	--	--	--	--	--	--	--	--				--	--	15.12	347.01
	3/2/1995	--	--	--	--	--	--	--	--	--	--				--	--	15.96	346.17
	8/9/1995	--	--	--	--	--	--	--	--	--	--				--	--	14.37	347.76
	6/13/1996	--	--	--	--	--	--	--	--	--	--				--	--	13.68	348.45
	12/11/1996	--	--	--	--	--	--	--	--	--	--				--	--	14.41	347.72
	6/24/1997	--	--	--	--	--	--	--	--	--	--				--	--	13.13	349.00
	12/30/1997	--	--	--	--	--	--	--	--	--	--				--	--	16.47	345.66
	4/1/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.58	345.55
	6/25/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.15	345.98
	9/24/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.11	346.02
	12/15/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.66	345.47
	3/31/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.73	345.40
	6/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.21	345.92
	9/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.01	347.12
	10/25/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.26	345.87
	11/22/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.48	345.65
	4/24/2001	--	--	--	--	--	--	--	--	--	--				--	--	17.11	345.02
	11/2/2001	--	--	--	--	--	--	--	--	--	--				--	--	16.50	345.63
	3/7/2002	--	--	--	--	--	--	--	--	--	--				--	--	17.26	344.87
	5/31/2002	<0.5	<1.0	<1.0	<3.0	--	--	--	--	--	--				--	--	16.85	345.28
	9/13/2002	<0.5	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.51	345.62
	12/13/2002	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	--	--				--	--	17.04	345.09
	3/20/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.36	344.77
	6/6/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.05	345.08
	9/18/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.34	344.79
	12/4/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/2/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.00	346.13
	6/29/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.51	344.62
	10/6/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.69	344.44
	12/23/2004	--	--	--	--	--	--	--	--	--	--				--	--	18.20	343.93
	4/7/2005	--	--	--	--	--	--	--	--	--	--				--	--	19.68	342.45
	6/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	17.46	344.67
	9/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	11/22/2005	--	--	--	--	--	--	--	--	--	--				--	--	18.01	344.12
	2/6/2006	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	18.00	344.13
	5/30/2006	--	--	--	--	--	--	--	--	--	--				--	--	17.75	344.38
	8/14/2006	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/10/2007	--	--	--	--	--	--	--	--	--	--				--	--	17.01	345.12
	6/5/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.14	345.99
	9/27/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.83	345.30
	12/7/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	
	6/11/2008	<1.0	<1.0	<1.0	<2.0	230	--	--	--	--	--				--	--	16.54	345.59
	10/29/2008	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.98	345.15
	4/13/2009	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.15	344.98
	10/22/2009	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/7/2010	<0.20	<1.0	<0.20	<0.60	<100	--	--	<0.0096	<0.20	<0.20				--	--	19.55	342.58
	12/16/2010	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	17.10	345.03
	3/8/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	17.01	345.12
	8/3/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	16.13	346.00
	3/27/2012	<0.50	<0.50	16.0	1.3	660	--	--	<0.010	<0.50	<0.50				<5	--	17.22	344.91
	12/12/2012	<1	<1	<1	<3	<100	--	--	<0.01	<1	<1				<1	--	16.86	345.27
	2/27/2013	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	17.04	345.09
365.81	10/17/2013	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	16.67	349.14
	2/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	17.49	348.32
	7/16/2014	--	--	--	--	--	--	--	--	--	--				--	--	16.88	348.93
	9/8/2014	--	--	--	--	--	--	--	--	--	--				--	--	16.70	349.11
	12/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	17.18	348.63
	3/19/2015	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0201[d]	--	--				<2.00	--	17.24	348.57
	6/30/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0203[d]	<1.00	<1.00				<2.00	--	17.05	348.76
	9/24/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0200[d]	<1.00	<1.00				<2.00	<2.00	16.84	348.97
	2/9/2016	--	--	--	--	--	--	--	--	--	--				--	--	17.36	348.45
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	**1,080**	427	<0.00634[c]	<1.00	<1.00	<0.100	<0.100	<0.100	0.190[J]	--	17.29	348.52
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	33.2[J]	<93.5	<0.00602[c]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	16.74	349.07
	9/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<98.5	<98.5	<0.00597[c]	<1.00	<1.00	<0.0965	<0.0965	<0.0965	<2.00	--	16.91	348.90
	12/11/2018	<1.00	<1.00	<1.00	<3.00	<100	41.6[J]	<103	<0.0102[*]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	17.47	348.34
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000[b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-4	6/30/1989	<0.5	<0.5	<0.5	<1.0	<1,000	<1,000[d]	--	--	--	--				--	--	13.74	348.09
	11/19/1989	<0.5	<0.5	<0.5	<1.0	<500	<500	--	--	--	--				--	--	13.98	347.85
	2/20/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.28	347.55
	5/23/1990	<0.5	<0.5	<0.5	<1.0	<1,000[d]	<1,000[d]	--	--	--	--				--	--	13.73	348.10
	1/9/1991	<0.5	<0.5	<0.5	<0.5	<1,000[d]	<1,000[d]	--	--	--	--				--	--	14.02	347.81
361.83	9/1/1993	0.4	<0.3	<0.3	<0.5	<10	--	--	--	--	--				--	--	14.66	347.17
	3/18/1994	<0.3	<0.3	<0.3	<0.5	<10	--	--	--	--	--				--	--	15.45	346.38
	9/19/1994	--	--	--	--	--	--	--	--	--	--				--	--	13.76	348.07
	3/2/1995	--	--	--	--	--	--	--	--	--	--				--	--	15.62	346.21
	8/9/1995	--	--	--	--	--	--	--	--	--	--				--	--	13.98	347.85
	6/13/1996	--	--	--	--	--	--	--	--	--	--				--	--	13.23	348.60
	12/11/1996	--	--	--	--	--	--	--	--	--	--				--	--	13.97	347.86
	6/24/1997	--	--	--	--	--	--	--	--	--	--				--	--	12.75	349.08
	12/30/1997	--	--	--	--	--	--	--	--	--	--				--	--	15.95	345.88
	4/1/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.25	345.58
	6/25/1998	--	--	--	--	--	--	--	--	--	--				--	--	15.70	346.13
	9/24/1998	--	--	--	--	--	--	--	--	--	--				--	--	15.64	346.19
	12/15/1998	--	--	--	--	--	--	--	--	--	--				--	--	16.18	345.65
	3/31/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.29	345.54
	6/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.74	346.09
	9/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.55	346.28
	10/25/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.72	346.11
	11/22/2000	--	--	--	--	--	--	--	--	--	--				--	--	16.08	345.75
	4/24/2001	<0.5	<0.5	<0.5	<1.0	<100	--	--	--	--	--				--	--	16.66	345.17
	11/2/2001	<0.5	<0.5	<0.5	<1.5	<100	--	--	--	--	--				--	--	16.02	345.81
	3/7/2002	--	--	--	--	--	--	--	--	--	--				--	--	16.82	345.01
	5/31/2002	<0.5	<1.0	<1.0	<1.0	<100	--	--	--	--	--				--	--	16.49	345.34
	9/13/2002	<0.5	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.09	345.74
	12/13/2002	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	--	--				--	--	16.55	345.28
	3/20/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.92	344.91
	6/6/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.61	345.22
	9/18/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.82	345.01
	12/4/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.38	344.45
	4/2/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.53	344.30
	6/29/2004	--	--	--	--	--	--	--	--	--	--				--	--	17.03	344.80
	10/6/2004	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.21	344.62
	12/23/2004	--	--	--	--	--	--	--	--	--	--				--	--	17.75	344.08
	4/7/2005	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.89	343.94
	6/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	17.03	344.80
	9/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	11/22/2005	--	--	--	--	--	--	--	--	--	--				--	--	17.94	343.89
	2/6/2006	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.55	344.28
	5/30/2006	--	--	--	--	--	--	--	--	--	--				--	--	17.25	344.58
	8/14/2006	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/10/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.53	345.30
	6/5/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.25	345.58
	9/27/2007	--	--	--	--	--	--	--	--	--	--				--	--	16.38	345.45
	12/7/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/13/2009	--	--	--	--	--	--	--	--	--	--				--	--	16.25	345.58
	10/22/2009	--	--	--	--	--	--	--	--	--	--				--	--	16.47	345.36
	4/7/2010	<0.20	<1.0	<0.20	<0.60	<100	--	--	<0.0097	<0.20	<0.20				--	--	17.11	344.72
	12/12/2012	--	--	--	--	--	--	--	--	--	--				--	--	16.38	345.45
	2/27/2013	--	--	--	--	--	--	--	--	--	--				--	--	16.65	345.18
365.54	10/17/2013	--	--	--	--	--	--	--	--	--	--				--	--	16.19	349.35
	2/5/2014	Iced Well-Could Not Open															--	--
	7/16/2014	--	--	--	--	--	--	--	--	--	--				--	--	--	--
	9/8/2014	--	--	--	--	--	--	--	--	--	--				--	--	--	--
	12/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	--	--
	3/19/2015	--	--	--	--	--	--	--	--	--	--				--	--	--	--
	9/24/2015	Could Not Open															--	--
	2/9/2016	--	--	--	--	--	--	--	--	--	--				--	--	--	--
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	<103	<103	<0.00623[C]	<1.00	<1.00	<0.114	<0.114	<0.114	0.179 [J]	--	16.89	348.65
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	50.1[J]	71.9[J]	<0.00600[C]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	16.39	349.15
	9/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<96.9	<96.9	<0.00616[C]	<1.00	<1.00	<0.0959	<0.0959	<0.0959	<2.00	--	16.51	349.03
	12/11/2018	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.0101[*]	<1.00	<1.00	<0.101	<0.101	<0.101	<2.00	--	17.16	348.65
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000[b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-5[c]	7/1/1989	<0.5	0.8	<0.5	4.2	<1,000	<1,000[d]	--	--	--	--				--	--	14.05	347.96
	11/19/1989	**6.4**	4.7	41	220	<500	<500	--	--	--	--				--	--	14.30	347.71
	2/20/1990	0.9	<0.5	6.1	38	<500	<1,000[d]	--	--	--	--				--	--	14.60	347.41
	5/30/1990	<0.5	0.5	1.1	7.5	<500	<1,000[d]	--	--	--	--				--	--	13.97	348.04
	1/9/1991	**6.4**	5.2	53	330	**2,000**	<1,000[d]	--	--	--	--				--	--	14.31	347.70
362.01	9/1/1993	2.0	0.5	5.0	1.0	290	--	--	--	--	--				--	--	14.98	347.03
	3/18/1994	<0.3	1.0	7.0	6.0	37	--	--	--	--	--				--	--	15.76	346.25
	9/19/1994	1.5	0.7	14.0	38.0	420	--	--	--	--	--				--	--	15.02	346.99
	3/2/1995	**5.4**	8.0	13.0	63.0	**930**	--	--	--	--	--				--	--	15.90	346.11
	8/9/1995	<0.3	<0.3	1.3	1.0	210	--	--	--	--	--				--	--	14.28	347.73
	6/13/1996	<0.5	<0.5	12.7	30.1	424	--	--	--	--	--				<2.0	--	13.53	348.48
	12/11/1996	<0.5	0.8	33.5	210.0	**1,860**	--	--	--	--	--				<2.0	--	14.30	347.71
	6/24/1997	<0.5	<0.5	<0.5	1.5	<50	--	--	--	--	--				4.09	--	13.00	349.01
	12/30/1997	<0.5	<0.5	<0.5	<1.0	<50	--	--	--	--	--				<2.0	--	16.27	345.74
	4/1/1998	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/25/1998	<0.3	<0.3	<0.5	<0.6	<100	--	--	--	--	--				<5	--	15.96	346.05
	9/24/1998	--	--	--	--	--	--	--	--	--	--				--	--	15.91	346.10
	12/15/1998	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/31/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/13/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	10/25/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	11/22/2000	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/24/2001	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	11/2/2001	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/7/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/13/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/13/2002	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/20/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/6/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/18/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/4/2003	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/2/2004	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/29/2004	--	--	--	--	--	--	--	--	--	--				--	--	17.25	344.76
	10/6/2004	--	--	--	--	--	--	--	--	--	--				--	--	17.45	344.56
	12/23/2004	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/7/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	17.47	344.54
	9/21/2005	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	5/30/2006	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	8/14/2006	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	18.01	344.00
	4/10/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/5/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	9/27/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/7/2007	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	6/11/2008	<4.0	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	16.45	345.56
	10/29/2008	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/13/2009	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	10/22/2009	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	4/7/2010	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/16/2010	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	3/8/2011	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	8/3/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	15.82	346.19
	3/27/2012	--	--	--	--	--	--	--	--	--	--				--	--	DRY	--
	12/12/2012	Dry Well															DRY	--
	2/27/2013	Dry Well															DRY	--
	10/17/2013	Dry Well															DRY	--
	2/5/2014	Dry Well															DRY	--
	7/16/2014	Dry Well															DRY	--
	9/8/2014	Dry Well															DRY	--
	12/5/2014	Dry Well															DRY	--
	3/19/2015	Dry Well															DRY	--
	6/30/2015	Dry Well															DRY	--
	9/24/2015	Dry Well															DRY	--
	2/9/2016	Dry Well															DRY	--
	6/6/2018	Dry Well															DRY	--
	9/12/2018	Dry Well															DRY	--
	12/11/2018	Dry Well															DRY	--
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000[b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-6	5/30/1990	**<500**	**8,500**	**1,300**	**140,000**	470	<10	--	--	--	--				--	--	13.33	348.09
	1/9/1991	**<500**	**4,900**	**760**	**8,100**	**52,000**	**7,000**	--	--	--	--				--	--	13.64	347.78
	9/1/1993	**65.0**	120.0	87.0	**3,000**	**15,000**	--	--	--	--	--				--	--	14.27	347.15
361.42	3/18/1994	**14.0**	140.0	82.0	**3,800**	**8,500**	--	--	--	--	--				--	--	15.03	346.39
	9/19/1994	<3.0	120.0	140.0	**4,700**	**43,000**	--	--	--	--	--				--	--	14.35	347.07
	3/2/1995	**14.0**	38.0	33.0	**1,500**	**15,000**	--	--	--	--	--				--	--	15.21	346.21
	8/9/1995	<1.5	32.0	23.0	**1,200**	**15,000**	--	--	--	--	--				--	--	13.59	347.83
	6/13/1996	<0.5	1.2	3.2	155	**3,000**	--	--	--	--	--				6.63	--	12.82	348.60
	12/11/1996	3.2	7.1	11.2	387	**4,000**	--	--	--	--	--				3.75	--	13.58	347.84
	6/24/1997	<2.50	<2.50	6.4	211	**2,040**	--	--	--	--	--				2.58	--	12.32	349.10
	12/30/1997	**17.1**	<2.50	49.7	695	**9,770**	--	--	--	--	--				2.47	--	15.54	345.88
	4/1/1998	**28.0**	44.5	328.0	**5,370**	**29,700**	--	--	--	--	--				--	--	15.90	345.52
	6/25/1998	1.9	19.0	120.0	**2,200**	**7,700**	--	--	--	--	--				8	--	15.25	346.17
	9/24/1998	**54.5**	66.6	202.0	**2,150**	**8,680**	--	--	--	--	--				--	--	15.23	346.19
	12/15/1998	<3	525.0	56	**6,500**	**25,000**	--	--	--	--	--				13	--	15.79	345.63
	3/31/2000	**<5**	23.0	82	**2,900**	**24,000**	--	--	--	--	--				**25**	--	15.85	345.57
	6/13/2000	<0.5	<0.5	88	**2,500**	**19,000**	--	--	--	--	--				--	--	15.26	346.16
	9/13/2000	**<50**	<50	<50	**1,100**	**19,000**	--	--	--	--	--				--	--	15.78	345.64
	10/25/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.33	346.09
	11/22/2000	--	--	--	--	--	--	--	--	--	--				--	--	15.54	345.88
	4/24/2001	**<25**	<25	560	**4,900**	**22,000**	--	--	--	--	--				--	--	16.23	345.19
	11/2/2001	**<12**	19.0	210	**1,200**	**10,000**	--	--	--	--	--				--	--	16.63	344.79
	3/7/2002	<0.5	8.6	83.6	432	**11,900**	--	--	--	--	--				--	--	16.48	344.94
	5/31/2002	3.5	3.3	155	889	**6,610**	--	--	--	--	--				--	--	16.09	345.33
	9/13/2002	4.5	4.3	252	907	**10,600**	--	--	--	--	--				--	--	15.66	345.76
	12/13/2002	<0.5	<1.0	227	889	**8,220**	--	--	--	--	--				--	--	16.16	345.26
	3/20/2003	**23.0**	5.9	370	**1,940**	**26,000**	--	--	--	--	--				--	--	16.50	344.92
	6/6/2003	4.0	4.0	10.0	10.0	**1,000**	--	--	--	--	--				--	--	16.19	345.23
	9/18/2003	4.8	4.0	240	**1,020**	**9,300**[(O)]	--	--	--	--	--				--	--	16.43	344.99
	12/4/2003		Sheen Observed				--	--	--	--	--				--	--	16.81	344.61
	4/2/2004	<1.0	<1.0	150	**1,260**	**8,900**	--	--	--	--	--				--	--	17.12	344.30
	6/29/2004	3.8	1.1	110	940	**8,300**	--	--	--	--	--				--	--	16.50	344.92
	10/6/2004	3.1	1.3	300	**1,620**	**16,000**	--	--	--	--	--				--	--	16.80	344.62
	12/23/2004	3.6	<1.0	210	**1,190**	**9,900**	--	--	--	--	--				--	--	17.34	344.08
	4/7/2005	<1.0	<1.0	<1.0	<2.0	920	--	--	--	--	--				--	--	16.21	345.21
	6/22/2005	<1.0	2.2	1	<2.0	330	--	--	--	--	--				--	--	17.91	343.51
	9/21/2005	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.41	345.01
	11/22/2005	--	--	--	--	--	--	--	--	--	--				--	--	18.04	343.38
	2/6/2006	3.8	<1.0	110	400	**6,300**	--	--	--	--	--				--	--	17.11	344.31
	5/30/2006	**7.9**	<1.0	130	770	**7,500**	--	--	--	--	--				--	--	16.85	344.57
	8/14/2006	**5.4**	<1.0	<1.0	1.3	720	--	--	--	--	--				--	--	17.68	343.74
	11/7/2006	**14**	290	**1,300**	**7,600**	**35,000**	--	--	--	--	--				--	--	14.26	347.16
	4/10/2007	**12**	<4.0	260	**1,200**	**13,000**	--	--	--	--	--				--	--	16.11	345.31
	6/5/2007	**11**	<4.0	140	540	**7,600**	--	--	--	--	--				--	--	15.84	345.58
	9/27/2007	**9.0**	<10	620	**3,300**	**20,000**	--	--	--	--	--				--	--	15.93	345.49
	12/7/2007	**5.5**	<4.0	280	**1,290**	**9,200**	--	--	--	--	--				--	--	16.42	345.00
	6/11/2008	**12**	<10	250	940	**11,000**	--	--	--	--	--				--	--	16.03	345.39
	10/29/2008	**7.3**	<4.0	240	**1,040**	**9,000**	--	--	--	--	--				--	--	16.01	345.41
	4/13/2009	**9.0**	<4.0	75	198	**5,300**	--	--	--	--	--				--	--	16.15	345.27
	10/22/2009	**5.5**	<4.0	90	206	**3,800**	--	--	--	--	--				--	--	16.07	345.35
	4/7/2010	<0.4	<2.0	52	97	**2,600**	--	--	<0.0096[Q]	<0.40	<0.40				--	--	16.67	344.75
	12/16/2010	<0.50	<0.50	73	240	**5,300**	--	--	--	--	--				--	--	16.10	345.32
	3/8/2011	<0.50	<0.50	42	140	**3,600**	--	--	--	--	--				--	--	16.15	345.27
	8/3/2011	<0.50	<0.50	7.6	30	270	--	--	--	--	--				--	--	16.00	345.42
	3/27/2012	<0.50	<0.50	63	180	**3,900**	--	--	<0.010	<0.50	<0.50				<5	--	16.38	345.04
	12/12/2012	3.50	14	140	360	**6,700**	--	--	<0.01	<1	<1				1.14	--	15.95	345.47
	2/27/2013	<0.50	<0.50	26	62	**2,000**	--	--	<0.010	<0.50	<0.50				<5	--	16.08	345.34
365.15	10/17/2013	<0.50	<0.50	110	190	**4,600**	--	--	<0.010	<0.50	<0.50				<5	--	15.77	349.38
	2/6/2014	<1.00	<1.00	32.9	64.3	**5,290**	--	--	<0.010	<1.00	<1.00				<1.00	--	16.65	348.50
	7/16/2014	<1.00	<1.00	6.02	13.81	**1,470**	--	--	--	--	--				--	--	16.00	349.15
	9/4/2014	--	BOS 200 Injection			--	--	--	--	--	--				--	--	--	--
	9/8/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				--	--	15.76	349.39
	12/5/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				1.11	--	16.26	348.89
	3/19/2015	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0198[d]	--	--				<2.00	--	16.37	348.78
	6/30/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0201[d]	<1.00	<1.00				<2.00	<2.00	16.23	348.92
	9/24/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0203[d]	<1.00	<1.00				<2.00	<2.00	15.94	349.21
	2/9/2016	--	--	--	--	<100	--	--	--	--	--				--	--	16.49	348.66
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	61.0 [J]	<104	<0.00619[C]	<1.00	<1.00	<0.109	0.0885[J]	0.133	0.273 [J]	--	16.45	348.70
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	488	<100	<0.00607[C]	<1.00	<1.00	0.720	0.435	0.303	11.3[B]	--	15.90	349.25
	9/13/2018	<1.00	<1.00	2.83	2.83 [J]	<100	270	<97	<0.00610[C]	<1.00	<1.00	11.2	5.99	4.06	0.425 [J]	--	16.05	349.10
	12/12/2018	<1.00	<1.00	<1.00	<3.00	<100	35.8 [J]	<100	<0.0100*	<1.00	<1.00	<0.106	<0.106	0.0668[J]	0.168[J]	--	16.64	348.51
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000**[b]	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-7	12/11/1996	--	--	--	--	--	--	--	--	--	--				--	--	--	--
361.23	6/24/1997	--	--	--	--	--	--	--	--	--	--				--	--	12.17	349.06
	4/24/2001	--	--	--	--	--	--	--	--	--	--				--	--	16.03	345.20
	11/2/2001	<1	1.0	17.0	49.0	**6,100**	--	--	--	--	--				--	--	15.41	345.82
	3/7/2002	<0.5	2.2	5.9	13.5	**6,900**	--	--	--	--	--				--	--	16.18	345.05
	5/31/2002	1.5	1.6	6.7	28.6	**5,110**	--	--	--	--	--				--	--	15.88	345.35
	9/13/2002	3.5	1.2	8.8	13.0	**5,240**	--	--	--	--	--				--	--	15.43	345.80
	12/13/2002	<0.5	<1.0	9.0	<3.0	**7,600**	--	--	--	--	--				--	--	15.95	345.28
	3/20/2003	**12.0**	<1.0	1.6	3.1	**2,400**	--	--	--	--	--				--	--	16.30	344.93
	6/6/2003	**5.7**	<1.0	8.0	17.2	**7,800**	--	--	--	--	--				--	--	15.97	345.26
	9/18/2003	**6.1**	<1.0	5.4	5.7	**3,600**[(D)]	--	--	--	--	--				--	--	16.22	345.01
	12/4/2003	**7.4**	<5.0	<5.0	<10	**3,300**	--	--	--	--	--				--	--	16.75	344.48
	4/2/2004	**6.3**	<1.0	2.0	2.2	**2,500**	--	--	--	--	--				--	--	16.91	344.32
	6/29/2004	3.7	<1.0	1.0	<2.0	**1,800**	--	--	--	--	--				--	--	16.30	344.93
	10/6/2004	4.6	<1.0	2.0	<2.0	**2,700**	--	--	--	--	--				--	--	16.60	344.63
	12/23/2004	**7.8**	1.7	2.5	4.6	**5,100**	--	--	--	--	--				--	--	17.12	344.11
	4/7/2005	**6.9**	<1.0	1.1	1.8	**4,700**	--	--	--	--	--				--	--	17.2	344.03
	6/22/2005	**5.7**	<1.0	1.6	1.7	**5,600**	--	--	--	--	--				--	--	15.97	345.26
	9/21/2005	<4.0	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	16.91	344.32
	11/22/2005	2.6	<1.0	<1.0	<2.0	**1,100**	--	--	--	--	--				--	--	16.82	344.41
	2/6/2006	**5.8**	<1.0	1.3	<2.0	**3,300**	--	--	--	--	--				--	--	16.96	344.27
	5/30/2006	<1.0	<1.0	<1.0	<2.0	190	--	--	--	--	--				--	--	16.60	344.63
	8/14/2006	3.8	<1.0	<1.0	<2.0	250	--	--	--	--	--				--	--	17.29	343.94
	11/7/2006	**11**	<1.0	17	18.5	710	--	--	--	--	--				--	--	13.11	348.12
	4/10/2007	1.4	<1.0	<1.0	<2.0	750	--	--	--	--	--				--	--	15.91	345.32
	6/5/2007	3.0	<1.0	<1.0	<2.0	**910**	--	--	--	--	--				--	--	15.62	345.61
	9/27/2007	**5.1**	<4.0	<4.0	<8.0	**800**	--	--	--	--	--				--	--	15.71	345.52
	12/7/2007	**11**	<1.0	<1.0	<2.0	**2,200**	--	--	--	--	--				--	--	16.24	344.99
	6/11/2008	<1.0	<1.0	<1.0	<2.0	190	--	--	--	--	--				--	--	15.83	345.40
	10/29/2008	<4.0	<4.0	<4.0	<8.0	480	--	--	--	--	--				--	--	15.93	345.30
	4/13/2009	1.7	<1.0	<1.0	<2.0	240	--	--	--	--	--				--	--	15.95	345.28
	10/22/2009	3.0	1.4	<1.0	4.5	**1,500**	--	--	--	--	--				--	--	15.87	345.36
	4/7/2010	<0.2	<1.0	0.24	1.63	**910**	--	--	<0.0096[Q]	<0.20	<0.20				--	--	16.46	344.77
	12/16/2010	<0.50	<0.50	<0.50	<0.50	390	--	--	--	--	--				--	--	16.04	345.19
	3/8/2011	<0.50	<0.50	<0.50	<0.50	290	--	--	--	--	--				--	--	15.93	345.30
	8/3/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	15.00	346.23
	3/27/2012	<0.50	<0.50	<0.50	<0.50	**840**	--	--	<0.010	<0.50	<0.50				<5	--	16.16	345.07
	12/12/2012	<1	1.4	<1	<3	340	--	--	<0.01	<1	<1				<1	--	15.77	345.46
	2/27/2013	<0.50	<0.50	<0.50	<0.50	400	--	--	<0.010	<0.50	<0.50				<5	--	16.02	345.21
364.95	10/17/2013	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	15.56	349.39
	2/6/2014	<1.00	<1.00	<1.00	<2.00	780	--	--	<0.010	<1.00	<1.00				<1.00	--	16.46	348.49
	7/16/2014	<1.00	<1.00	<1.00	<2.00	**1,130**	--	--	--	--	--				--	--	15.81	349.14
	9/4/2014	--	BOS 200 Injection			--	--	--	--	--	--				--	--		
	9/4/2014	--	BOS 200 Injection			--	--	--	--	--	--				--	--		
	9/8/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				--	--	15.56	349.39
	12/5/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				<1	--	16.06	348.89
	3/19/2015	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0203[d]	--	--				<2.00	--	16.17	348.78
	6/30/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0199[d]	<1.00	<1.00				<2.00	<2.00	16.04	348.91
	9/24/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0199[d]	<1.00	<1.00				<2.00	<2.00	15.75	349.20
	2/9/2016	--	--	--	--	--	--	--	--	--	--				--	--	17.30	347.65
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	49.5[J]	<105	<0.00598[C]	<1.00	<1.00	<0.0962	<0.0962	<0.0962	0.946[J]	--	16.24	348.71
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.00600[C]	<1.00	<1.00	<0.109	<0.109	<0.109	0.225[JB]	--	15.71	349.24
	9/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<96.2	<96.2	<0.00609[C]	<1.00	<1.00	<0.0962	<0.0962	<0.0962	<2.00	--	15.85	349.10
	12/11/2018	<1.00	<1.00	<1.00	<3.00	<100	<78.0[J]	<103	<0.0101[*]	<1.00	<1.00	<0.105	0.117	0.119	0.709[J]	--	16.46	348.49
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000**[b]	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-8	4/24/2001	**<5**	40.0	49.0	840.0	**9,200**	--	--	--	--	--				--	--	16.18	345.16
361.34	11/2/2001	**5.9**	43.0	32.0	240.0	**4,900**	--	--	--	--	--				--	--	15.56	345.78
	3/7/2002	<0.5	<1.0	<1.0	<3.0	326	--	--	--	--	--				--	--	16.34	345.00
	5/31/2002	<0.5	<1.0	<1.0	1.4	<100	--	--	--	--	--				--	--	16.04	345.30
	9/13/2002	1.63	0.6	20.0	54.5	**1,240**	--	--	--	--	--				--	--	15.59	345.75
	12/13/2002	<0.5	<1.0	<1.0	<3.0	<100	--	--	--	--	--				--	--	16.08	345.26
	3/20/2003	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.43	344.91
	6/6/2003	<1.0	<1.0	13.0	44	**1,100**	--	--	--	--	--				--	--	16.03	345.31
	9/18/2003	<1.0	<1.0	97	187	**5,200**[(o)]	--	--	--	--	--				--	--	16.35	344.99
	12/4/2003	4.5	1.9	100	57	**4,200**	--	--	--	--	--				--	--	16.75	344.59
	4/2/2004	2.1	3.4	96	130	**2,500**	--	--	--	--	--				--	--	17.05	344.29
	6/29/2004	2.7	2.2	83	241	**3,800**	--	--	--	--	--				--	--	16.54	344.80
	10/6/2004	1.9	2.3	100	156	**4,000**	--	--	--	--	--				--	--	16.63	344.71
	12/23/2004	2.5	4.1	67	11.8	**1,900**	--	--	--	--	--				--	--	17.26	344.08
	4/7/2005	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	17.37	343.97
	6/22/2005	<1.0	2.3	1.2	1.1	280	--	--	--	--	--				--	--	16.15	345.19
	9/21/2005	**16.0**	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	17.01	344.33
	11/22/2005	<1.0	<1.0	<1.0	<2.0	<100	--	--	--	--	--				--	--	16.95	344.39
	2/6/2006	<1.0	<1.0	1.4	1.2	190	--	--	--	--	--				--	--	17.09	344.25
	5/30/2006	<1.0	<1.0	1.0	29.0	450	--	--	--	--	--				--	--	16.80	344.54
	8/14/2006	--	--	--	--	--	--	--	--	--	--				--	--	17.47	343.87
	11/7/2006	**12**	330	**1,600**	**9,500**	**36,000**	--	--	--	--	--				--	--	13.24	348.10
	4/10/2007	<4.0	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	16.04	345.30
	6/5/2007	<1.0	<1.0	<1.0	7.2	210	--	--	--	--	--				--	--	15.76	345.58
	9/27/2007	<4.0	<4.0	8.7	4.9	<400	--	--	--	--	--				--	--	15.85	345.49
	12/7/2007	<4.0	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	16.32	345.02
	6/11/2008	<4.0	<4.0	<4.0	<8.0	<400	--	--	--	--	--				--	--	15.96	345.38
	10/29/2008	<1.0	<1.0	11	<2.0	180	--	--	--	--	--				--	--	16.05	345.29
	4/13/2009	4.3	9.6	3.4	10.1	230	--	--	--	--	--				--	--	16.10	345.24
	10/22/2009	<1.0	<1.0	22	18.0	640	--	--	--	--	--				--	--	16.00	345.34
	4/7/2010	<0.20	<1.0	0.75	0.31	130	--	--	<0.0096	<0.20	<0.20				--	--	16.61	344.73
	12/16/2010	<0.50	<0.50	1.9	18	<250	--	--	--	--	--				--	--	16.20	345.14
	3/8/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	16.05	345.29
	8/3/2011	<0.50	<0.50	<0.50	<0.50	<250	--	--	--	--	--				--	--	15.12	346.22
	3/27/2012	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				11	--	16.29	345.05
	12/12/2012	<1	<1	<1	4.2	140	--	--	<0.01	<1	<1				1.05	--	15.89	345.45
	2/27/2013	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	16.13	345.21
365.03	10/17/2013	<0.50	<0.50	<0.50	0.78	<250	--	--	<0.010	<0.50	<0.50				<5	--	15.68	349.35
	2/6/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	<0.010	<1.00	<1.00				<1.00	--	16.56	348.47
	7/16/2014	<1.00	<1.00	<1.00	<2.00	84.6	--	--	--	--	--				--	--	15.92	349.11
	9/4/2014	--	BOS-200 Injection			--	--	--	--	--	--				--	--		
	9/4/2014	--	BOS-200 Injection			--	--	--	--	--	--				--	--		
	9/8/2014	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				--	--	15.71	349.32
	12/5/2014	--	--	--	--	--	--	--	--	--	--				--	--	16.21	348.82
	3/19/2015	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0196[d]	--	--				<2.00	--	16.31	348.72
	6/30/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0200[d]	<1.00	<1.00				<2.00	--	16.13	348.90
	9/24/2015	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0201[d]	<1.00	<1.00				<2.00	<2.00	15.86	349.17
	2/9/2016	--	--	--	--	--	--	--	--	--	--				--	--	16.42	348.61
	2/22/2018	<1.00	<1.00	<1.00	<3.00	<100	39.9[J]	<102	<0.00616[c]	<1.00	<1.00	<0.109	<0.109	<0.109	4.76	--	16.38	348.65
	6/6/2018	<1.00	<1.00	<1.00	<3.00	<100	43.5[J]	<102	<0.00607[c]	<1.00	<1.00	<0.109	<0.109	<0.109	**16.5**[B]	--	15.81	349.22
	9/13/2018	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.00603[c]	<1.00	<1.00	<0.0970	<0.0970	<0.0970	<2.00	--	15.97	349.06
	12/12/2018	<1.00	<1.00	<1.00	<3.00	<100	<103	<103	<0.0101*	<1.00	<1.00	<0.0991	<0.0970	<0.0970	0.851[J]	--	16.56	348.47
MW-9	10/17/13	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	16.01	349.31
365.32	02/06/14	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	<0.010	<1.00	<1.00				4.07	--	16.89	348.43
	07/16/14	--	--	--	--	--	--	--	--	--	--				--	--	16.20	349.12
	09/08/14	--	--	--	--	--	--	--	--	--	--				--	--	16.02	349.30
	12/05/14	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	--	--	--				<1	--	16.53	348.79
	03/19/15	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0201[d]	--	--				<2.00	--	16.62	348.70
	06/30/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0198[d]	<1.00	<1.00				<2.00	--	16.44	348.88
	09/24/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0201[d]	<1.00	<1.00				<2.00	<2.00	16.17	349.15
	02/09/16	--	--	--	--	--	--	--	--	--	--				--	--	16.74	348.58
	02/22/18	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.00629[c]	<1.00	<1.00	<0.109	<0.109	<0.109	0.179[J]	--	16.69	348.63
	06/06/18	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.00602[c]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	16.08	349.24
	09/13/18	<1.00	<1.00	<1.00	<3.00	<100	<98.7	<98.7	<0.00595[c]	<1.00	<1.00	<0.0963	<0.0963	<0.0963	<2.00	--	16.27	349.05
	12/11/18	<1.00	<1.00	<1.00	<3.00	<100	<104	<104	<0.0101*	<1.00	<1.00	<0.108	<0.108	<0.108	<2.00	--	16.88	348.44
MW-10	10/17/13	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	16.48	349.29
365.77	02/06/14	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	<0.0100	<1.00	<1.00				**63.0**	--	17.32	348.45
	07/16/14	<1.00	<1.00	<1.00	<2.00	55.9	--	--	--	--	--				--	--	16.69	349.08
	09/08/14	--	--	--	--	--	--	--	--	--	--				--	--	16.48	349.29
	12/05/14	--	--	--	--	--	--	--	--	--	--				--	--	16.97	348.80
	03/19/15	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0201[d]	--	--				<2.00	--	17.08	348.69
	06/30/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0204[d]	<1.00	<1.00				<2.00	<2.00	16.92	348.85
	09/24/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0199[d]	<1.00	<1.00				<2.00	<2.00	16.66	349.11
	02/09/16	--	--	--	--	--	--	--	--	--	--				3.92	<1.00	17.18	348.59
	02/22/18	<1.00	<1.00	<1.00	<3.00	<100	<104	<104	<0.00629[c]	<1.00	<1.00	<0.0943	<0.0943	<0.0943	6.31	--	17.13	348.64
	06/06/18	<1.00	<1.00	<1.00	<3.00	<100	31.1[J]	<100	<0.00610[c]	<1.00	<1.00	<0.109	<0.109	<0.109	11.5[B]	--	16.62	349.15
	09/12/18	<1.00	<1.00	<1.00	<3.00	<100	<98.3	<98.3	<0.00602[c]	<1.00	<1.00	<0.0963	<0.0963	<0.0963	0.591[J]	--	16.75	349.02
	12/11/18	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.0100*	<1.00	<1.00	<0.112	<0.0963	<0.0963	1.94[J]	--	17.31	348.46
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000**[b]	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TABLE 2 - CUMULATIVE GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington 99352
All analytical results in micrograms per liter (µg/L)

Well ID (TOC)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	EDB	EDC	MTBE	Naphtha-lene	2-Methyl Naphtha-lene	1-Methyl Naphtha-lene	Total Lead	Dissolved Lead	Depth To Groundwater (feet below TOC)	Groundwater Elevation (feet msl)
MW-11	10/17/13	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	16.25	349.32
365.57	02/06/14	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	<0.0100	<1.00	<1.00				3.75	--	17.09	348.48
	07/16/14	<1.00	<1.00	<1.00	<2.00	67.3	--	--	--	--	--				--	--	16.50	349.07
	09/08/14	--	--	--	--	--	--	--	--	--	--				--	--	16.23	349.34
	12/05/14	--	--	--	--	--	--	--	--	--	--				--	--	16.75	348.82
	03/19/15	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0206[d]	--	--				**23.5**	--	16.85	348.72
	06/30/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0198[d]	<1.00	<1.00				<2.00	<2.00	16.70	348.87
	09/24/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0198[d]	<1.00	<1.00				<2.00	<2.00	16.45	349.12
	02/09/16	--	--	--	--	--	--	--	--	--	--				<1.00	<1.00	16.97	348.60
	06/30/16	--	--	--	--	--	--	--	--	--	--				<2.00	<2.00	16.66	348.91
	02/22/18	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.00689[c]	<1.00	<1.00	<0.109	<0.109	<0.109	0.153 [J]	--	16.93	348.64
	06/06/18	<1.00	<1.00	<1.00	<3.00	<100	<101	<101	<0.00605[c]	<1.00	<1.00	<0.109	<0.109	<0.109	0.310[JB]	--	16.40	349.17
	09/12/18	<1.00	<1.00	<1.00	<3.00	<100	<98.5	<98.5	<0.00607[c]	<1.00	<1.00	<0.0960	<0.0960	<0.0960	0.441 [J]	--	16.55	349.02
	12/11/18	<1.00	<1.00	<1.00	<3.00	<100	<99.5	<99.5	<0.0102[r]	<1.00	<1.00	<0.100	<0.100	<0.100	<2.00	--	17.08	348.49
MW-12	10/17/13	<0.50	<0.50	<0.50	<0.50	<250	--	--	<0.010	<0.50	<0.50				<5	--	14.96	349.44
364.40	02/06/14	<1.00	<1.00	<1.00	<2.00	<50.0	--	--	<0.0100	<1.00	<1.00				<1.00	--	15.87	348.53
	07/16/14	--	--	--	--	--	--	--	--	--	--				--	--	15.20	349.20
	09/08/14	--	--	--	--	--	--	--	--	--	--				--	--	14.96	349.44
	12/05/14	--	--	--	--	--	--	--	--	--	--				--	--	15.49	348.91
	03/19/15	<1.00	<1.00	<1.00	<2.00	<100	--	--	<0.0197[d]	--	--				<2.00	--	15.58	348.82
	06/30/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0199[d]	<1.00	<1.00				<2.00	--	15.44	348.96
	09/24/15	<1.00	<1.00	<1.00	<3.00	<100	--	--	<0.0201[d]	<1.00	<1.00				<2.00	<2.00	15.18	349.22
	02/09/16	--	--	--	--	--	--	--	--	--	--				--	--	15.72	348.68
	02/22/18	<1.00	<1.00	<1.00	<3.00	<100	<105	<105	<0.00612[c]	<1.00	<1.00	<0.111	<0.111	<0.111	0.130 [J]	--	15.67	348.73
	06/06/18	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.00597[c]	<1.00	<1.00	<0.109	<0.109	<0.109	<2.00	--	15.09	349.31
	09/13/18	<1.00	<1.00	<1.00	<3.00	<100	<95.9	<95.9	<0.00602[c]	<1.00	<1.00	<0.0996	<0.0996	<0.0996	<2.00	--	15.26	349.14
	12/12/18	<1.00	<1.00	<1.00	<3.00	<100	<102	<102	<0.0101[r]	<1.00	<1.00	<0.0990	<0.0990	<0.0990	0.519[J]	--	15.86	348.54
MTCA Method A Cleanup Level		**5**	**1,000**	**700**	**1,000**	**800/1,000[b]**	**500**	**500**	**0.01**	**5**	**20**	**160**	**--**	**--**	**15**	**--**		

TOC = top of casing elevation on the north side
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
TPH-O = total petroleum hydrocarbons as oil
< = less than the laboratory practical quantitation limits
o = hydrocarbons outside the defined gasoline range are present in the sample
MTCA = Model Toxics Control Act
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
B = Compound was found in the blank and sample
msl = mean sea level
EDB = ethylene dibromide
EDC = ethylene dichloride
MTBE = methyl tertiary butyl ether
-- = not measured, not available or not sampled
[q] = surrogate recovery is outside of the control limits

Bold values exceed MTCA Method A Cleanup Levels

[a] MW-5 has been dry and not sampled since August 2011

[b] The TPH-G cleanup level is reduced from 1,000 µg/L to 800 µg/L if benzene is present in the sample

[c] The laboratory reporting limit (RL) exceeded the MTCA Method A CUL. Therefore, the method detection limit (MDL) was reported for this analyte.

[d] The laboratory reporting limit (RL) exceeded the MTCA Method A CUL.

TABLE 3 - CUMULATIVE GROUNDWATER CHEMICAL INDICATOR AND HDB RESULTS

Former 7-Eleven Store #25821, 1824 George Washington Way, Richland, Washington

All concentrations in milligrams per liter (mg/L), unless otherwise noted

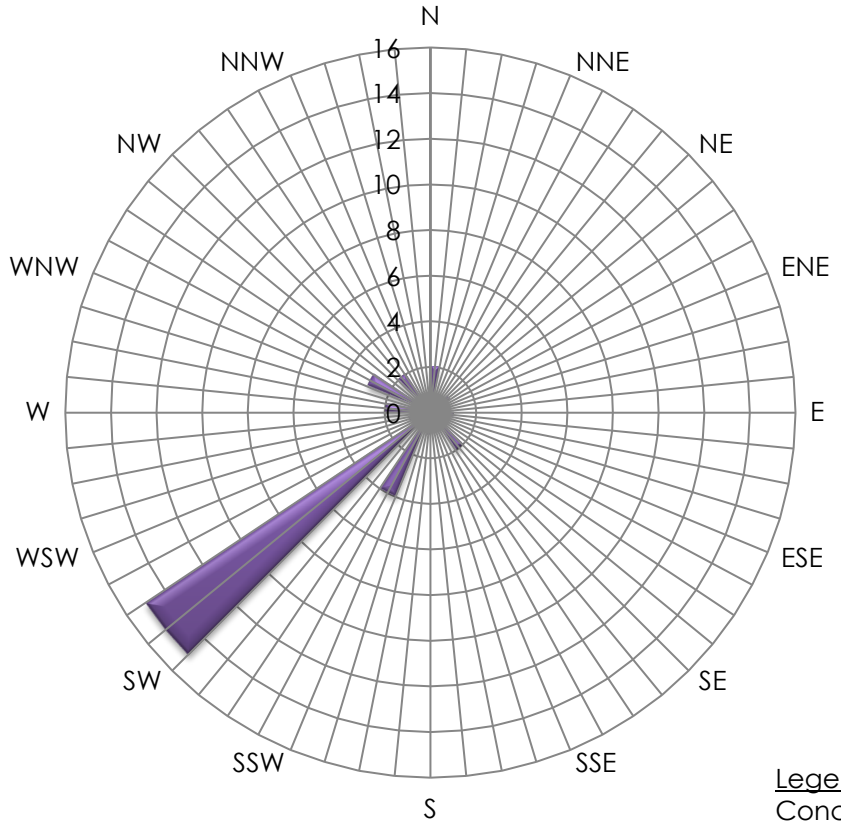
Well ID (TOC)	Sample Date	Sulfate (SO_4^{2-})	Nitrate[HF] (NO_3^-)	Total Iron	Ferrous Iron (Fe^{2+})	Total Organic Carbon (TOC)	Total Inorganic Carbon (TIC)	HDB (CFU/ml)
MW-1	2/21/2018	--	4.15	--	--	--	--	--
MW-2	2/22/2018	--	3.20	--	--	--	--	--
MW-3	6/30/2015	--	--	<0.025	--	--	--	--
	2/22/2018	--	9.61	--	--	--	--	--
MW-4	2/22/2018	--	5.41[B]	--	--	--	--	--
MW-6	7/16/2014	153	1.75	12.8	0.980	9.92	106	--
	9/8/2014	**1,670**	**96.5**	--	--	0.524	88.7	600
	12/5/2014	249	0.764	15.4	--	1.02	94.1	300
	6/30/2015	956	64.5	2.78	--	--	--	1,100
	2/22/2018	--	2.88	--	--	--	--	--
MW-7	7/16/2014	122	0.406	17.0	3.10	5.98	63.6	--
	12/5/2014	547	0.498	6.62	--	1.18	114	6,300
	3/19/2015	--	--	--	--	--	--	--
	6/30/2015	385	1.61	3.02	--	--	--	960
	2/22/2018	--	1.35	--	--	--	--	--
MW-8	7/16/2014	30.8	4.86	1.24	<0.0300	1.78	89.7	--
	9/8/2014	**934**	**36.5**	--	--	1.69	104	800
	6/30/2015	--	--	1.99	--	--	--	--
	9/24/2015	120	2.52	2.6	--	--	--	3,700
	2/22/2018	--	4.38	--	--	--	--	--
MW-9	12/5/2014	74.1	4.72	0.225	--	0.868	103	2,300
	6/30/2015	--	--	0.17	--	--	--	--
	9/24/2015	32.6	3.27	0.144	--	--	--	14,000
	2/22/2018	--	3.99	--	--	--	--	--
MW-10	7/16/2014	41.0	5.62	1.48	0.260	1.30	73.5	--
	9/8/2014	31.1	2.67	0.401	--	2.26	85.3	700
	6/30/2015	61.3	5.59	3.7	--	--	--	--
	9/24/2015	27.4	3.92	1.89	--	--	--	1,200,000
	2/22/2018	--	3.79	--	--	--	--	--
MW-11	7/16/2014	36.4	4.11	1.21	0.380	0.873	71.2	--
	9/8/2014	141	7.20	0.204	--	--	--	--
	6/30/2015	60.1	5.07	1.08	--	--	--	--
	9/24/2015	103	3.24	1.13	--	--	--	230,000
	2/22/2018	--	5.46	--	--	--	--	--
MW-12	7/16/2014	36.4	4.11	1.21	0.380	0.873	71.2	--
	6/30/2015	--	--	0.369	--	--	--	--
	9/24/2015	23.3	2.43	0.273	--	--	--	160,000
	2/22/2018	--	4.33	--	--	--	--	--
Groundwater Quality Criteria - WAC 173-200-050		**250**	**10**	**0.3 [a]**	**NE**	**NE**	**NE**	**NE**
MTCA Method B CUL		--	**25.6**	**11.2**	--	--	--	--
National Primary Drinking Water Maximum Contaminant Level		--	**10**	--	--	--	--	--

Notes: see Page 2

[a] = The groundwater quality standard for metals are measured as total metals.
< = less than the laboratory practical quantitation limit.
NE = not established. -- = not sampled, not measured or not analyzed.
[HF] = Analyte has a holding time of 15 minutes. All results are outside of hold time.
MTCA = Model Toxics Control Act.
HDB = hydrocarbon degrading bacteria. CFU/ml = colony forming units per milliliter

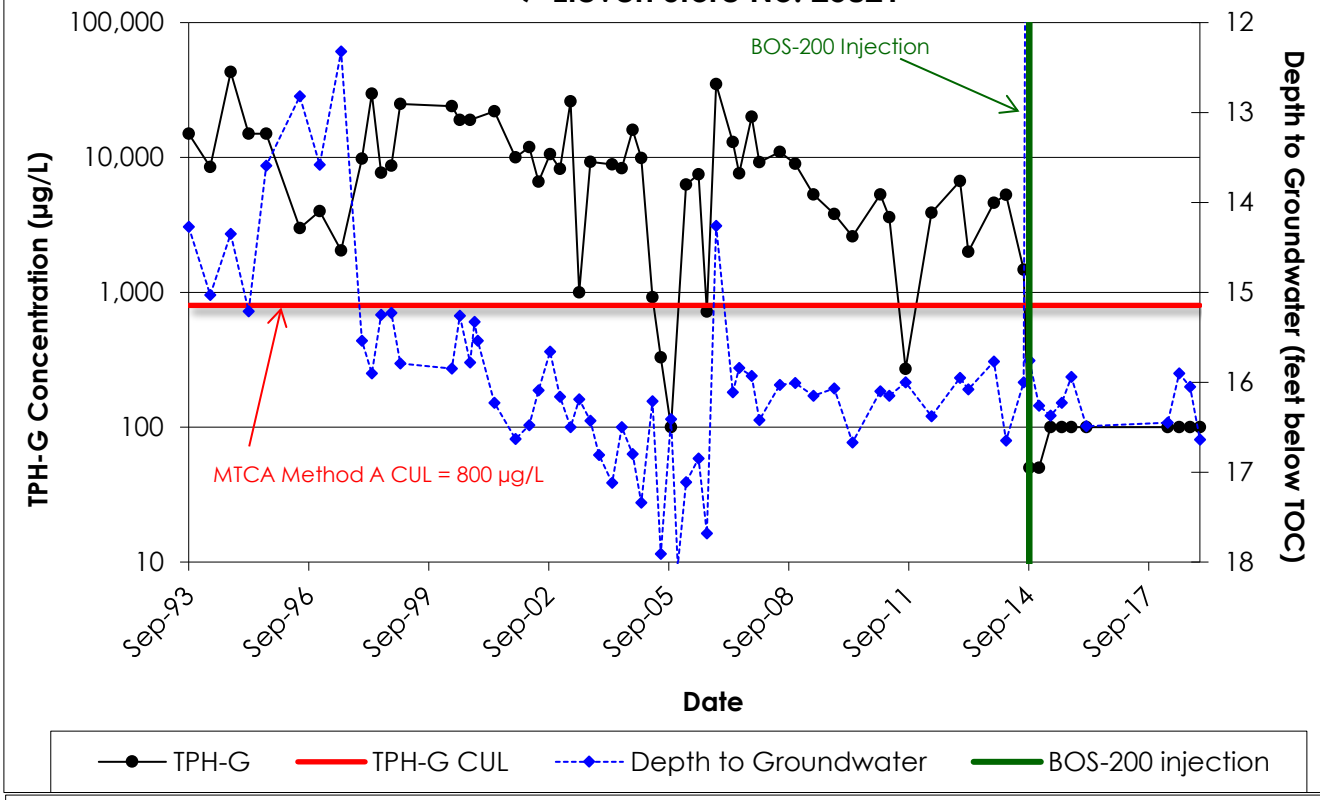
Analytical Methods:
Sulfate & Nitrate = by EPA Method 300.0
Total Iron = by EPA Method 200.8 and Ferrous Iron by SM 3500-Fe B.
TOC & TIC = by SM 5310C.
HDB = Method Reference: Manual of Environmental Microbiology, 2nd Edition, 2001: Chapter 84

Graph 1
Groundwater Flow Direction Rose Diagram
7-Eleven Store No. 25821
1824 George Washington Way
Richland, Washington

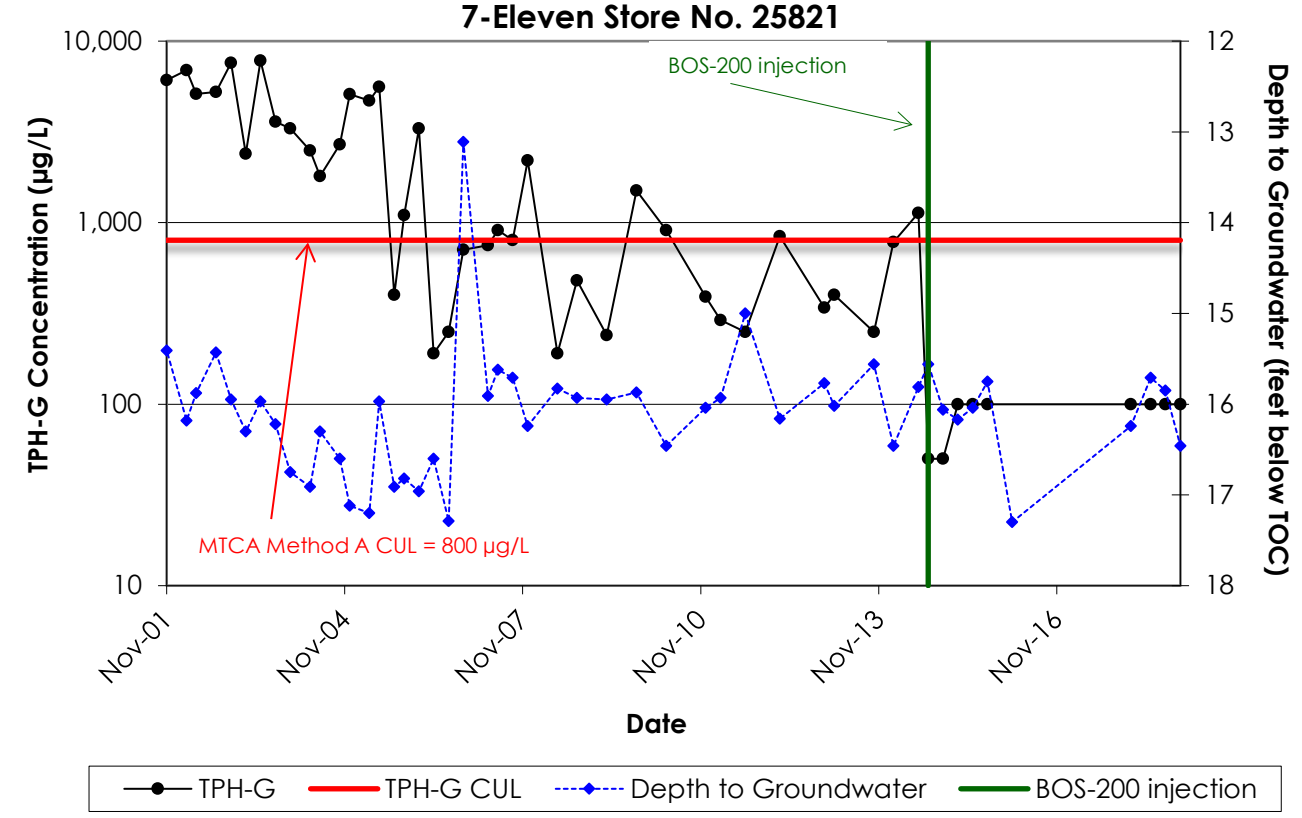


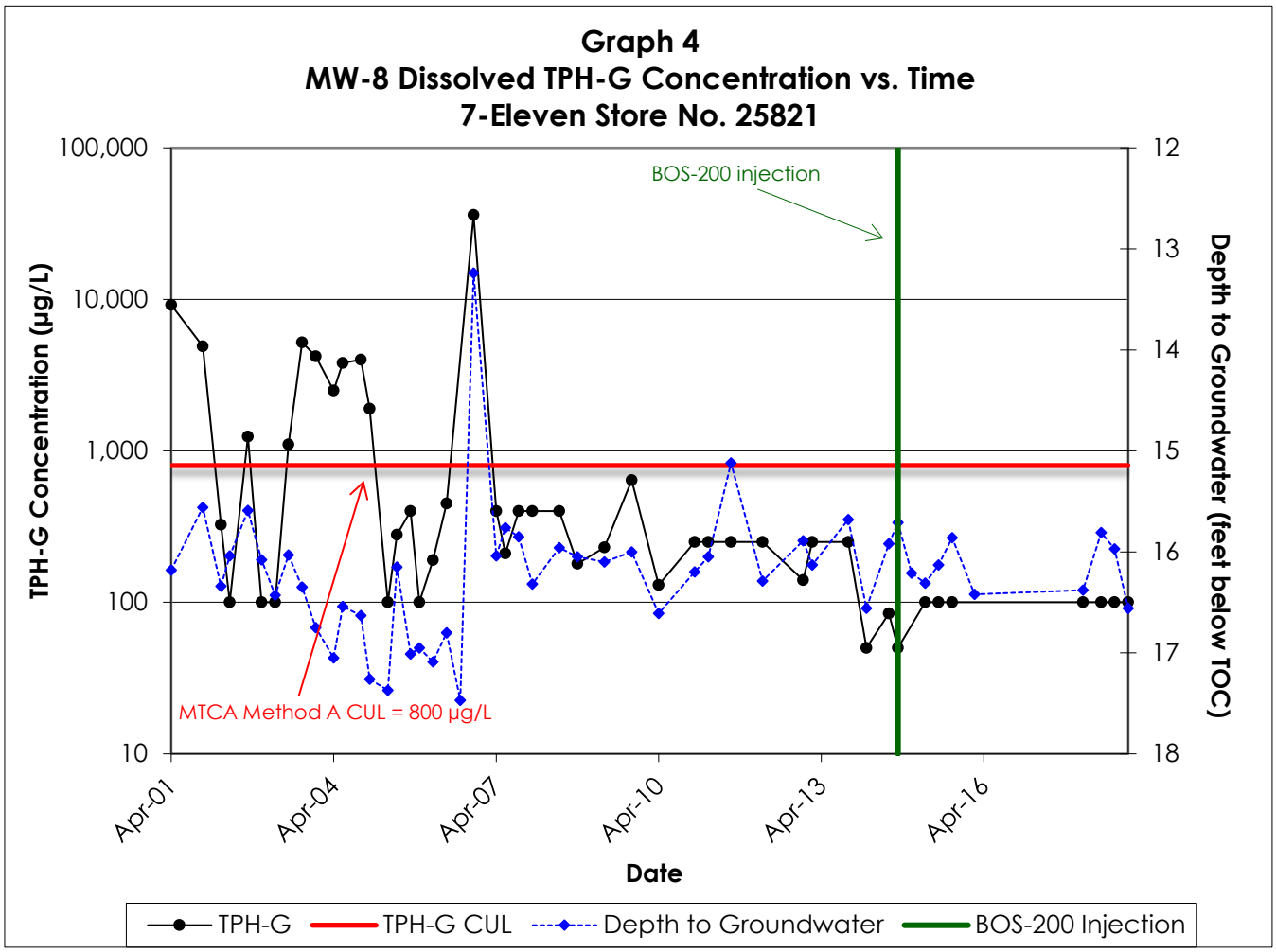
Legend
Concentric Circles represent Quarterly Monitoring Events
Fourth Quarter 2002 through First Quarter 2016
41 Data Points Shown

Graph 2
MW-6 Dissolved TPH-G Concentration vs. Time
7-Eleven Store No. 25821

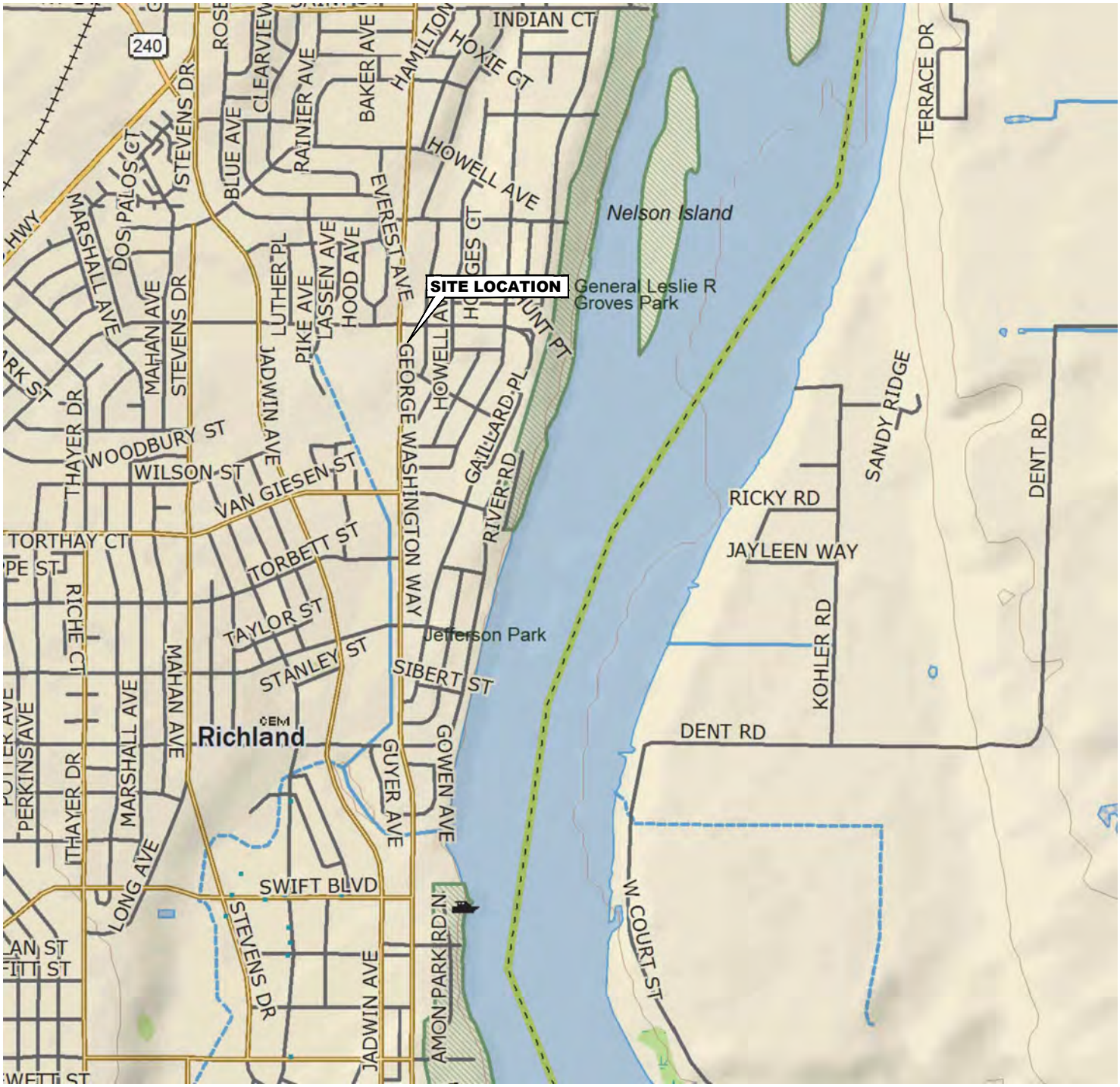


Graph 3
MW-7 Dissolved TPH-G Concentration vs. Time
7-Eleven Store No. 25821




Graph 4
MW-8 Dissolved TPH-G Concentration vs. Time
7-Eleven Store No. 25821
TPH-G Concentration (µg/L)
Depth to Groundwater (feet below TOC)
100,000
10,000
1,000
100
10
12
13
14
15
16
17
18
BOS-200 injection
MTCA Method A CUL = 800 µg/L
Apr-01
Apr-04
Apr-07
Apr-10
Apr-13
Apr-16
Date
TPH-G
TPH-G CUL
Depth to Groundwater
BOS-200 Injection

Figures



North

1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, RICHLAND, WASHINGTON

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN
FORMER FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE LOCATION MAP

FIGURE: **1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	EM	PF	NOV 2013

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\25821\FIG-1_SITE LOC.dwg | Layout Tab: Layout1 | Drafter: miramirez | Feb 19, 2016 at 10:40

LEGEND:

PROPERTY BOUNDARY

N

0 150 300

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
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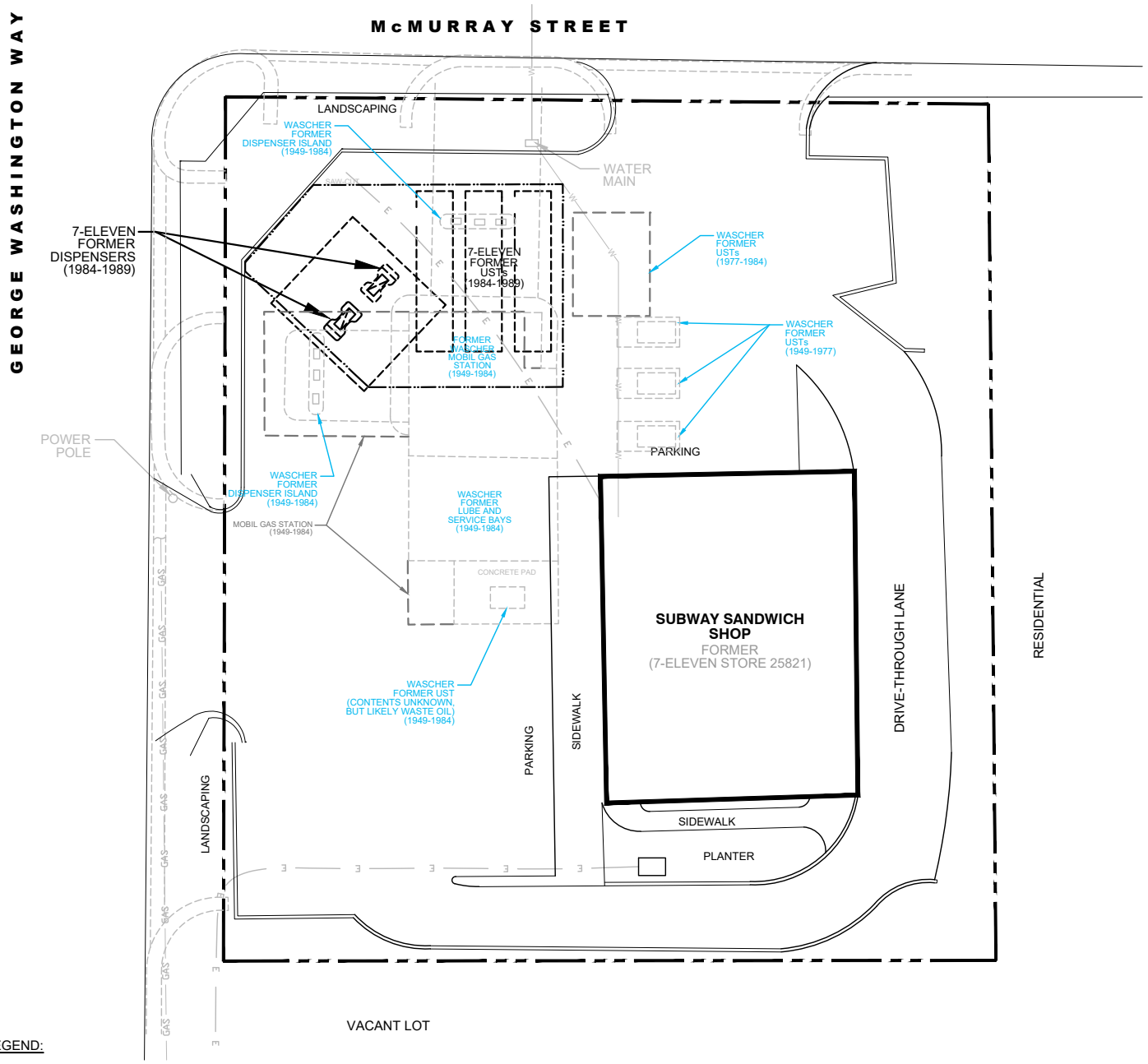
FOR: 7-ELEVEN

FORMER FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE VICINITY MAP

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	DH	PF	NOV 2015



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- HISTORIC WASCHER MOBIL SERVICE STATION, DISPENSERS AND USTs (1949-1984)
- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

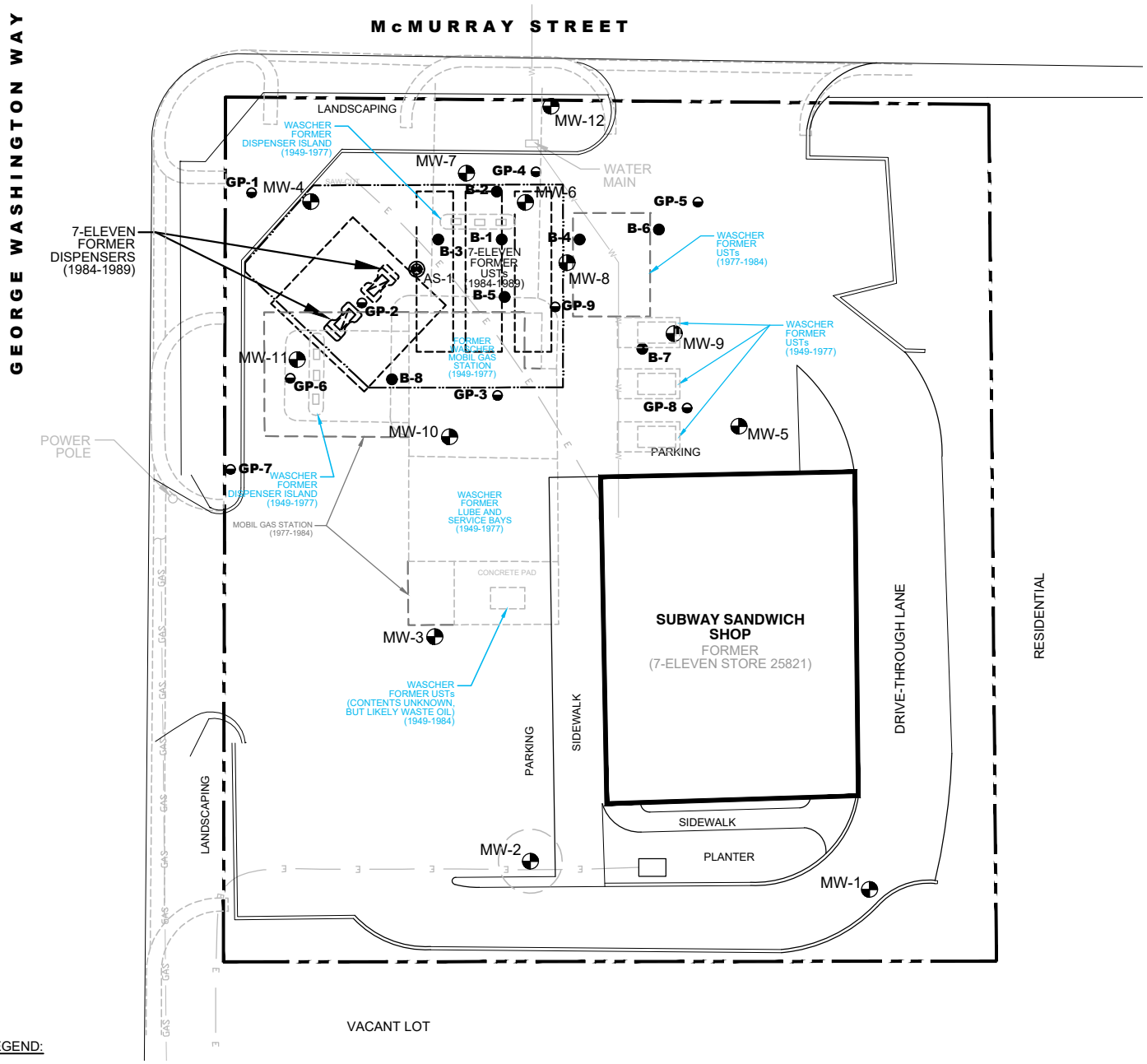
FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE PLAN WITH HISTORIC SITE FEATURES

FIGURE: **3a**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- B-1 SOIL BORING (IT, DECEMBER 2000)
- GP-1 SOIL BORING SECOR, AUGUST 2004)
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- HISTORIC WASCHER MOBIL SERVICE STATION, DISPENSERS AND USTs (1949-1984)
- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- CURRENT SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

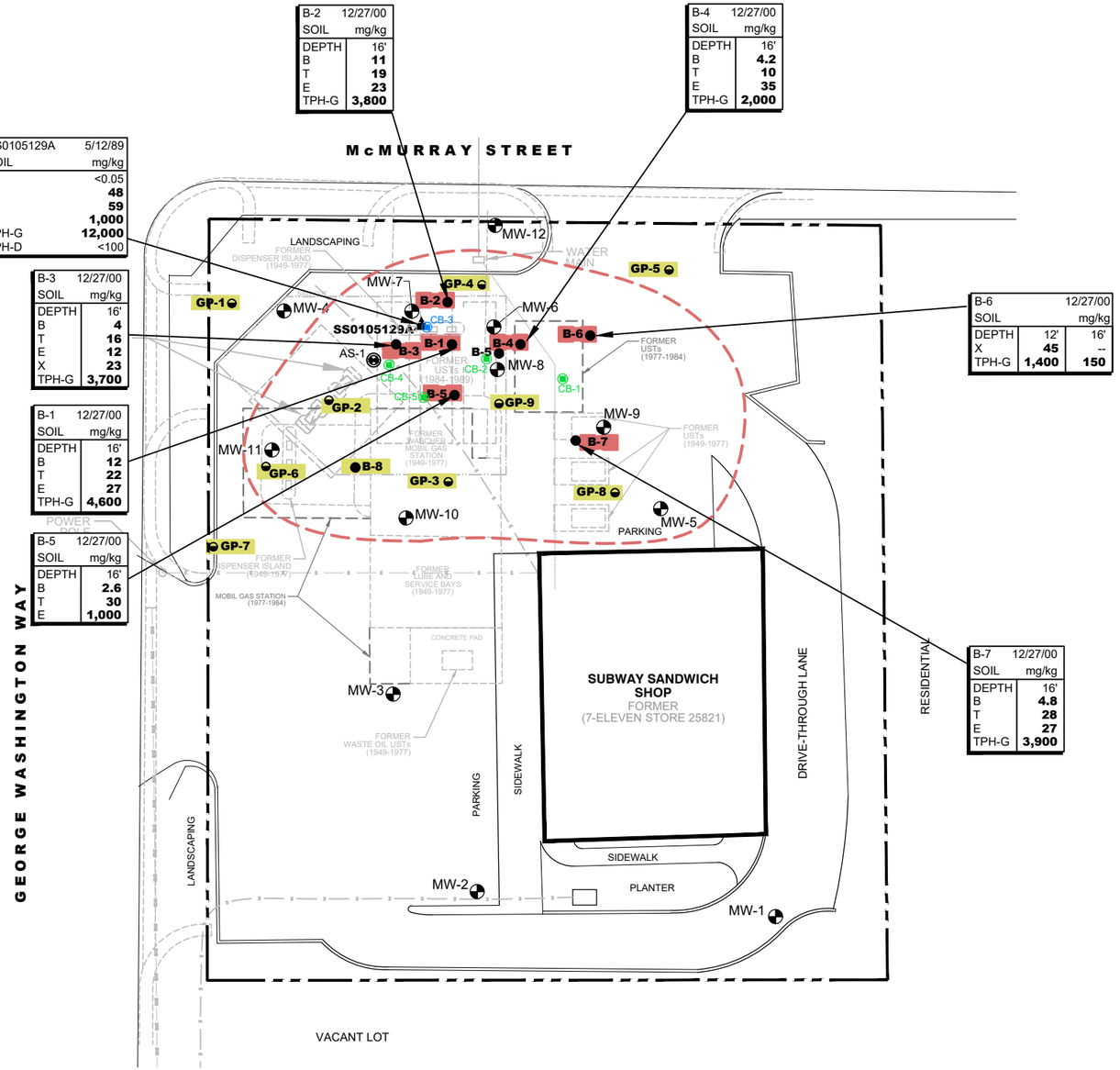
FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE PLAN WITH HISTORIC SITE FEATURES, SOIL BORINGS, AND GROUNDWATER MONITORING WELLS

FIGURE: 3b

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 — MONITORING WELL LOCATION
- AS-1 — AIR SPARGE WELL LOCATION
- CB-1 — SOIL SAMPLE RESULTS BELOW MTCA METHOD A SCREENING LEVELS.
- CB-3 — SOIL SAMPLE RESULTS ABOVE MTCA METHOD A SCREENING LEVELS, BUT BELOW SITE CLEANUP LEVELS (METHOD B)
- B-1 — SOIL BORING (IT, DECEMBER 2000)
- GP-1 — SOIL BORING (SECOR, AUGUST 2004)
- SS-1 — SOIL SAMPLE (KLEINFELDER, MAY 1989)
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- WASCHER MOBIL SERVICE STATION (1949-1984)
- 7-ELEVEN DISPENSER ISLAND (1984-1989)
- CURRENT SITE FEATURES-SUBWAY SANDWICH SHOP
- MTCA SITE BOUNDARY
- HISTORIC SOIL SAMPLES EXCEEDING MTCA METHOD A CLEAN UP LEVELS; BUT LATER CONFIRMED BELOW SITE SPECIFIC CLEANUP LEVELS.
- HISTORIC SOIL SAMPLES NOT EXCEEDING MTCA METHOD A CLEAN UP LEVELS

TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
mg/kg MILLIGRAMS PER KILOGRAM

Stantec
11130 NE 33rd Place, Bellevue WA 98004
phone: (425) 869-9448 www.stantec.com

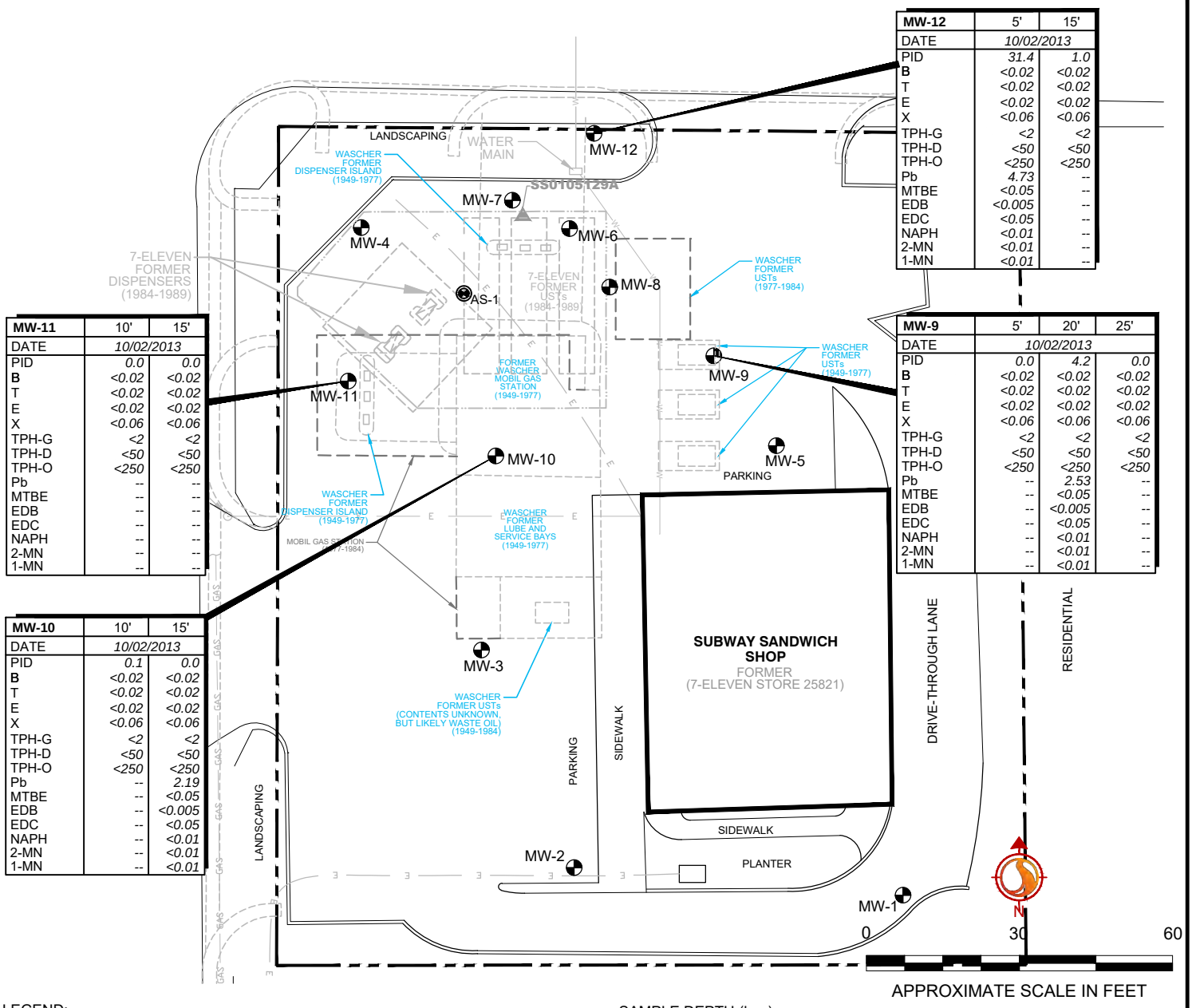
STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

HISTORIC SOIL ANALYTICAL DATA 2000-2004 (INTERIM REMEDIAL ACTION 1999-2001 NITRATE INJECTIONS INTO MW-7)

4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
212302332	MDR	CBS	PL	OCT 2018

V:\1857\active\Secor\CADD_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\REVISED EDITS\FIG-3a7-11_25821_2013 (2).dwg modified by MiRamirez on Oct 03, 2018 - 9:42



MW-12	5'	15'
DATE	10/02/2013	
PID	31.4	1.0
B	<0.02	<0.02
T	<0.02	<0.02
E	<0.02	<0.02
X	<0.06	<0.06
TPH-G	<2	<2
TPH-D	<50	<50
TPH-O	<250	<250
Pb	4.73	--
MTBE	<0.05	--
EDB	<0.005	--
EDC	<0.05	--
NAPH	<0.01	--
2-MN	<0.01	--
1-MN	<0.01	--

MW-11	10'	15'
DATE	10/02/2013	
PID	0.0	0.0
B	<0.02	<0.02
T	<0.02	<0.02
E	<0.02	<0.02
X	<0.06	<0.06
TPH-G	<2	<2
TPH-D	<50	<50
TPH-O	<250	<250
Pb	--	--
MTBE	--	--
EDB	--	--
EDC	--	--
NAPH	--	--
2-MN	--	--
1-MN	--	--

MW-9	5'	20'	25'
DATE	10/02/2013		
PID	0.0	4.2	0.0
B	<0.02	<0.02	<0.02
T	<0.02	<0.02	<0.02
E	<0.02	<0.02	<0.02
X	<0.06	<0.06	<0.06
TPH-G	<2	<2	<2
TPH-D	<50	<50	<50
TPH-O	<250	<250	<250
Pb	--	2.53	--
MTBE	--	<0.05	--
EDB	--	<0.005	--
EDC	--	<0.05	--
NAPH	--	<0.01	--
2-MN	--	<0.01	--
1-MN	--	<0.01	--

MW-10	10'	15'
DATE	10/02/2013	
PID	0.1	0.0
B	<0.02	<0.02
T	<0.02	<0.02
E	<0.02	<0.02
X	<0.06	<0.06
TPH-G	<2	<2
TPH-D	<50	<50
TPH-O	<250	<250
Pb	--	2.19
MTBE	--	<0.05
EDB	--	<0.005
EDC	--	<0.05
NAPH	--	<0.01
2-MN	--	<0.01
1-MN	--	<0.01

LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- FORMER FEATURES
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- < NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
- mg/kg MILLIGRAM PER KILOGRAM
- bgs BELOW GROUND SURFACE

SAMPLE ID / SAMPLE DEPTH (bgs)

MW-9	5'	20'	25'	
DATE	10/02/2013			
PID	0.0	4.2	0.0	ppm
B	<0.02	<0.02	<0.02	mg/kg
T	<0.02	<0.02	<0.02	
E	<0.02	<0.02	<0.02	
X	<0.06	<0.06	<0.06	
TPH-G	<2	<2	<2	
TPH-D	<50	<50	<50	
TPH-O	<250	<250	<250	
Pb	--	2.53	--	
MTBE	--	<0.005	--	
EDB	--	<0.05	--	
EDC	--	<0.05	--	
NAPH	--	<0.01	--	
2-MN	--	<0.01	--	
1-MN	--	<0.01	--	

ANALYTES

ANALYTES:

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
TPH-O	TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
Pb	TOTAL LEAD
MTBE	METHYL TERTIARY BUTYL ETHER
EDC	ETHYLENE DICHLORIDE
EDB	ETHYLENE DIBNROMIDE
NAPH	NAPHTHALENE
1-MN	1-METHYLNAPHTHALENE
2-MN	2-METHYLNAPHTHALENE

Stantec
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FOR: 7-ELEVEN

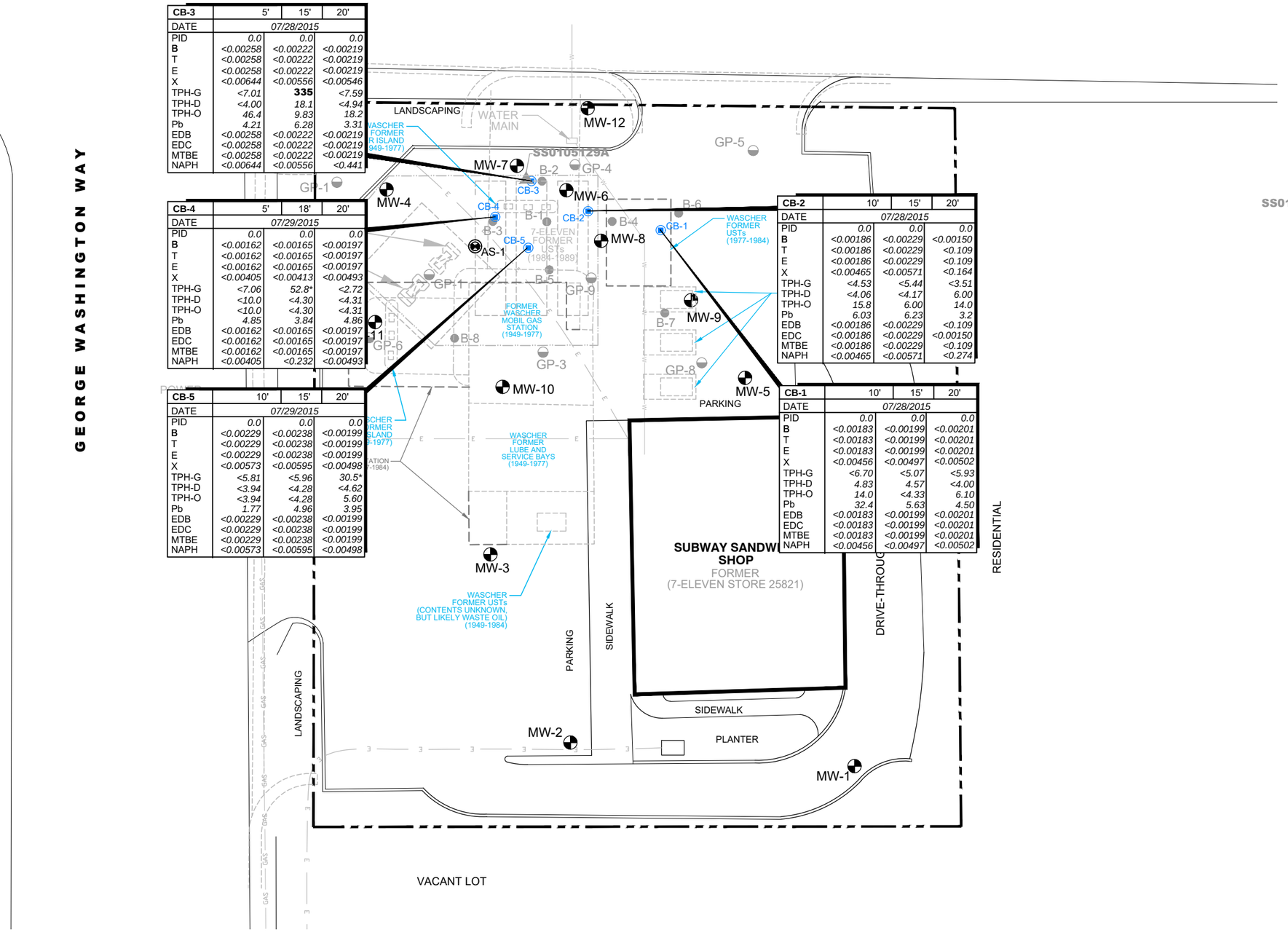
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE PLAN WITH SOIL ANALYTICAL RESULTS OCTOBER 2, 2013

FIGURE: **5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018

FILEPATH:V:\1857\active\Secor\CADD_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-9 SOIL 2013.dwg | Layout Tab: FIG-7 SOIL(NEW 5) | Drafter: MiRamirez | Oct 03, 2018 at 9:39



CB-3	5'	15'	20'
DATE	07/28/2015		
PID	0.0	0.0	0.0
B	<0.00258	<0.00222	<0.00219
T	<0.00258	<0.00222	<0.00219
E	<0.00258	<0.00222	<0.00219
X	<0.00644	<0.00556	<0.00546
TPH-G	<7.01	**335**	<7.59
TPH-D	<4.00	18.1	<4.94
TPH-O	46.4	9.83	18.2
Pb	4.21	6.28	3.31
EDB	<0.00258	<0.00222	<0.00219
EDC	<0.00258	<0.00222	<0.00219
MTBE	<0.00258	<0.00222	<0.00219
NAPH	<0.00644	<0.00556	<0.441

CB-4	5'	18'	20'
DATE	07/29/2015		
PID	0.0	0.0	0.0
B	<0.00162	<0.00165	<0.00197
T	<0.00162	<0.00165	<0.00197
E	<0.00162	<0.00165	<0.00197
X	<0.00405	<0.00413	<0.00493
TPH-G	<7.06	52.8*	<2.72
TPH-D	<10.0	<4.30	<4.31
TPH-O	<10.0	<4.30	<4.31
Pb	4.85	3.84	4.86
EDB	<0.00162	<0.00165	<0.00197
EDC	<0.00162	<0.00165	<0.00197
MTBE	<0.00162	<0.00165	<0.00197
NAPH	<0.00405	<0.232	<0.00493

CB-5	10'	15'	20'
DATE	07/29/2015		
PID	0.0	0.0	0.0
B	<0.00229	<0.00238	<0.00199
T	<0.00229	<0.00238	<0.00199
E	<0.00229	<0.00238	<0.00199
X	<0.00573	<0.00595	<0.00498
TPH-G	<5.81	<5.96	30.5*
TPH-D	<3.94	<4.28	<4.62
TPH-O	<3.94	<4.28	5.60
Pb	1.77	4.96	3.95
EDB	<0.00229	<0.00238	<0.00199
EDC	<0.00229	<0.00238	<0.00199
MTBE	<0.00229	<0.00238	<0.00199
NAPH	<0.00573	<0.00595	<0.00498

CB-2	10'	15'	20'
DATE	07/28/2015		
PID	0.0	0.0	0.0
B	<0.00186	<0.00229	<0.00150
T	<0.00186	<0.00229	<0.109
E	<0.00186	<0.00229	<0.109
X	<0.00465	<0.00571	<0.164
TPH-G	<4.53	<5.44	<3.51
TPH-D	<4.06	<4.17	6.00
TPH-O	15.8	6.00	14.0
Pb	6.03	6.23	3.2
EDB	<0.00186	<0.00229	<0.109
EDC	<0.00186	<0.00229	<0.00150
MTBE	<0.00186	<0.00229	<0.109
NAPH	<0.00465	<0.00571	<0.274

CB-1	10'	15'	20'
DATE	07/28/2015		
PID	0.0	0.0	0.0
B	<0.00183	<0.00199	<0.00201
T	<0.00183	<0.00199	<0.00201
E	<0.00183	<0.00199	<0.00201
X	<0.00456	<0.00497	<0.00502
TPH-G	<6.70	<5.07	<5.93
TPH-D	4.83	4.57	<4.00
TPH-O	14.0	<4.33	6.10
Pb	32.4	5.63	4.50
EDB	<0.00183	<0.00199	<0.00201
EDC	<0.00183	<0.00199	<0.00201
MTBE	<0.00183	<0.00199	<0.00201
NAPH	<0.00456	<0.00497	<0.00502

LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- CB-1 SOIL SAMPLE (STANTEC 2015)
- B-7 SOIL BORING
- GP-8 GEO-PROBE BORING
- SS0105129A BORING
- FORMER FEATURES

<	NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
mg/kg	MILLIGRAM PER KILOGRAM
ppm	PARTS PER MILLION
bgs	BELOW GROUND SURFACE
BOLD	VALUES EXCEED MTCA METHOD A CLEANUP LEVELS
*	GASOLINE MIXTURES WITHOUT BENZENE AND WHERE THE TOTAL OF ETHYLBENZENE, TOLUENE, AND TOTAL XYLENES IS LESS THAN 1% OF THE TOTAL MIXTURE, HAVE CLEANUP LEVEL OF 100 mg/kg.

SAMPLE ID / SAMPLE DEPTH (bgs)

ANALYTES	CB-1	5'	20'	25'	
	DATE	01/28/2015			
	PID	0.0	0.0	0.0	ppm
	B	<0.00183	<0.00199	<0.00201	
	T	<0.00183	<0.00199	<0.00201	
	E	<0.00183	<0.00199	<0.00201	
	X	<0.00456	<0.00497	<0.00502	
	TPH-G	<6.70	<5.07	<5.93	
	TPH-D	4.83	4.57	<4.00	
	TPH-O	14.0	<4.33	6.10	kg/mg
	Pb	32.4	5.63	4.50	
	EDB	<0.00183	<0.00199	<0.00201	
	EDC	<0.00183	<0.00199	<0.00201	
	MTBE	<0.00183	<0.00199	<0.00201	
	NAPH	<0.00456	<0.00497	<0.00502	

ANALYTES:

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
TPH-O	TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
Pb	TOTAL LEAD
MTBE	METHYL TERTIARY BUTYL ETHER
EDC	ETHYLENE DICHLORIDE
EDB	ETHYLENE DIBNROMIDE
NAPH	NAPHTHALENE

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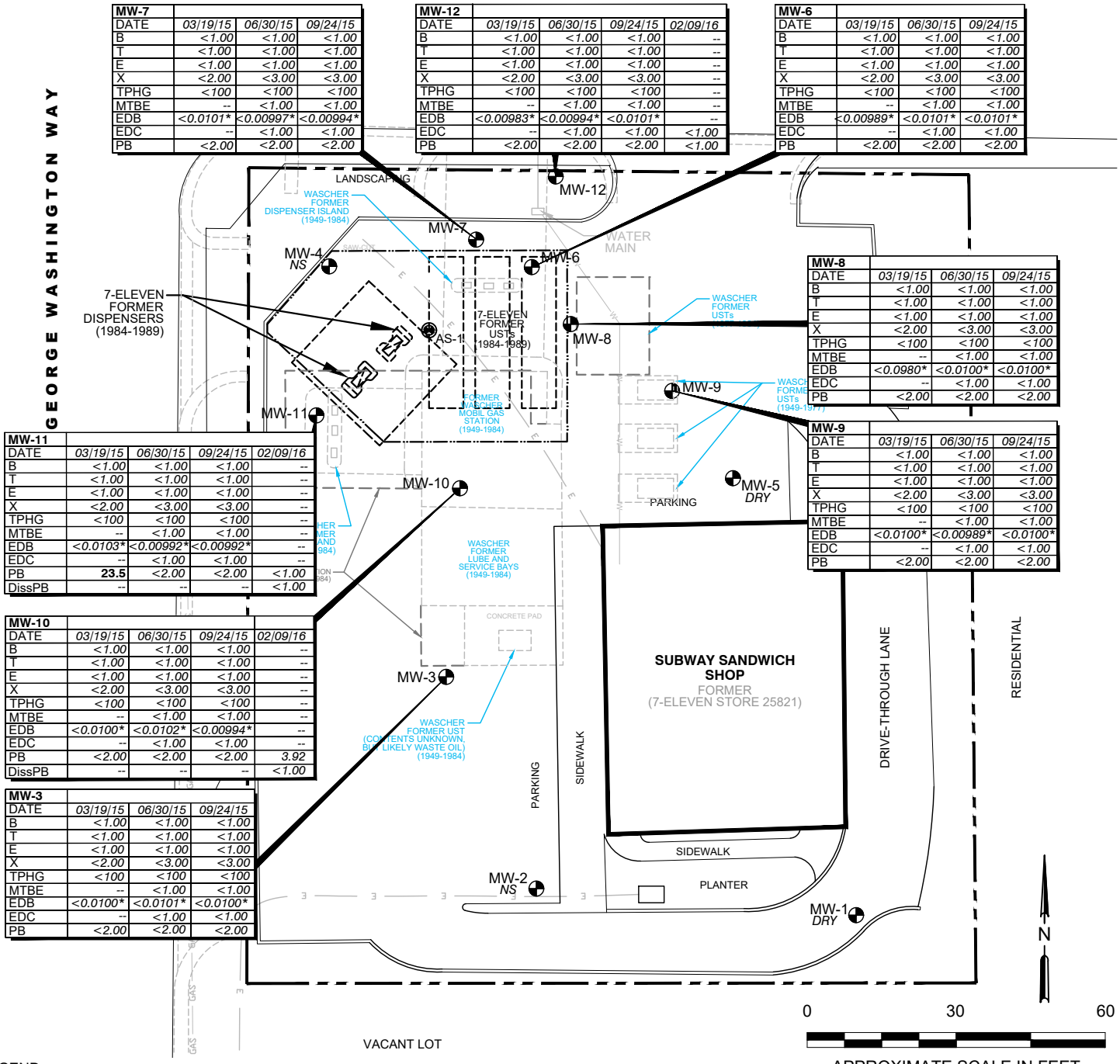
FOR:
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE PLAN WITH SOIL ANALYTICAL RESULTS JULY 28-29, 2016

FIGURE: **6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018

FILEPATH:V:\1857\active\Secor\CADD_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-9 SOIL 2013.dwg | Layout Tab: FIG-8 SOIL(NEW 6) | Drafter: MiRamirez | Oct 03, 2018 at 9:37



MW-7			
DATE	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.0101*	<0.00997*	<0.00994*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

MW-12				
DATE	03/19/15	06/30/15	09/24/15	02/09/16
B	<1.00	<1.00	<1.00	--
T	<1.00	<1.00	<1.00	--
E	<1.00	<1.00	<1.00	--
X	<2.00	<3.00	<3.00	--
TPHG	<100	<100	<100	--
MTBE	--	<1.00	<1.00	--
EDB	<0.00983*	<0.00994*	<0.0101*	--
EDC	--	<1.00	<1.00	<1.00
PB	<2.00	<2.00	<2.00	<1.00

MW-6			
DATE	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.00989*	<0.0101*	<0.0101*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

MW-8			
DATE	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.0980*	<0.0100*	<0.0100*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

MW-9			
DATE	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.0100*	<0.00989*	<0.0100*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

MW-11				
DATE	03/19/15	06/30/15	09/24/15	02/09/16
B	<1.00	<1.00	<1.00	--
T	<1.00	<1.00	<1.00	--
E	<1.00	<1.00	<1.00	--
X	<2.00	<3.00	<3.00	--
TPHG	<100	<100	<100	--
MTBE	--	<1.00	<1.00	--
EDB	<0.0103*	<0.00992*	<0.00992*	--
EDC	--	<1.00	<1.00	--
PB	**23.5**	<2.00	<2.00	<1.00
DissPB	--	--	--	<1.00

MW-10				
DATE	03/19/15	06/30/15	09/24/15	02/09/16
B	<1.00	<1.00	<1.00	--
T	<1.00	<1.00	<1.00	--
E	<1.00	<1.00	<1.00	--
X	<2.00	<3.00	<3.00	--
TPHG	<100	<100	<100	--
MTBE	--	<1.00	<1.00	--
EDB	<0.0100*	<0.0102*	<0.00994*	--
EDC	--	<1.00	<1.00	--
PB	<2.00	<2.00	<2.00	3.92
DissPB	--	--	--	<1.00

MW-3			
DATE	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.0100*	<0.0101*	<0.0100*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- FORMER FEATURES

<	NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
--	NOT ANALYZED
µg/L	MICROGRAMS PER LITER
BOLD	VALUES EXCEED MTCA METHOD A CLEANUP LEVELS
NS	NOT SAMPLED

SAMPLE ID / SAMPLE DATE

MW-9			
ANALYTES	03/19/15	06/30/15	09/24/15
B	<1.00	<1.00	<1.00
T	<1.00	<1.00	<1.00
E	<1.00	<1.00	<1.00
X	<2.00	<3.00	<3.00
TPHG	<100	<100	<100
MTBE	--	<1.00	<1.00
EDB	<0.0100*	<0.00989*	<0.0100*
EDC	--	<1.00	<1.00
PB	<2.00	<2.00	<2.00

µg/L

* THE LABORATORY REPORTING LIMIT (RL) EXCEEDED THE MTCA METHOD A CUL. THEREFORE, THE METHOD DETECTION LIMIT (MDL) WAS REPORTED FOR THIS ANALYTE.

ANALYTES:

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE	METHYL TERTIARY BUTYL ETHER
EDB	ETHYLENE DIBNROMIDE
EDC	ETHYLENE DICHLORIDE
Pb	TOTAL LEAD
DissPb	DISSOLVED LEAD

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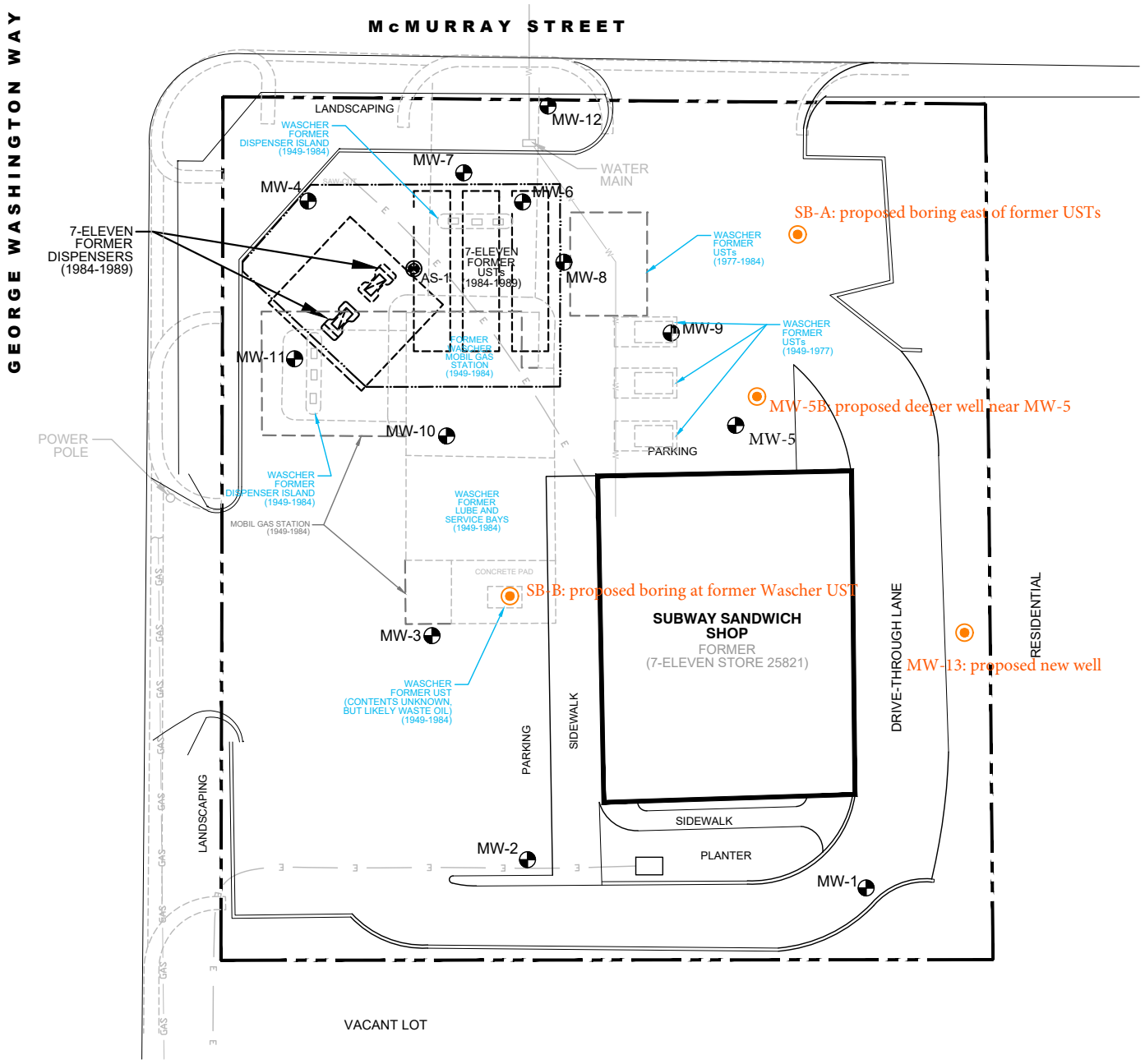
FOR:
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ANALYTICAL RESULTS MARCH 19, 2015; JUNE 30, 2015; SEPTEMBER 24, 2015; FEBRUARY 9, 2016

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018

FILEPATH:V:\1857\active\Secor\CADD_00 OTHER OFFICES\01-REDMOND\7-11\25821\2018\FIG-7a-7d 25821_2015.dwg | Layout Tab: FIG-8 GWA (NEW 7) | Drafter: MiRamirez | Oct 15, 2018 at 14:08



LEGEND:

- PROPOSED SOIL BORING/ GROUNDWATER MONITORING WELL LOCATIONS
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- SUBJECT PROPERTY LINE BOUNDARY
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- HISTORIC WASCHER MOBIL SERVICE STATION, DISPENSERS AND USTs (1949-1984)
- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

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PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

SITE PLAN WITH PROPOSED BORING AND GROUNDWATER MONITORING WELL LOCATIONS

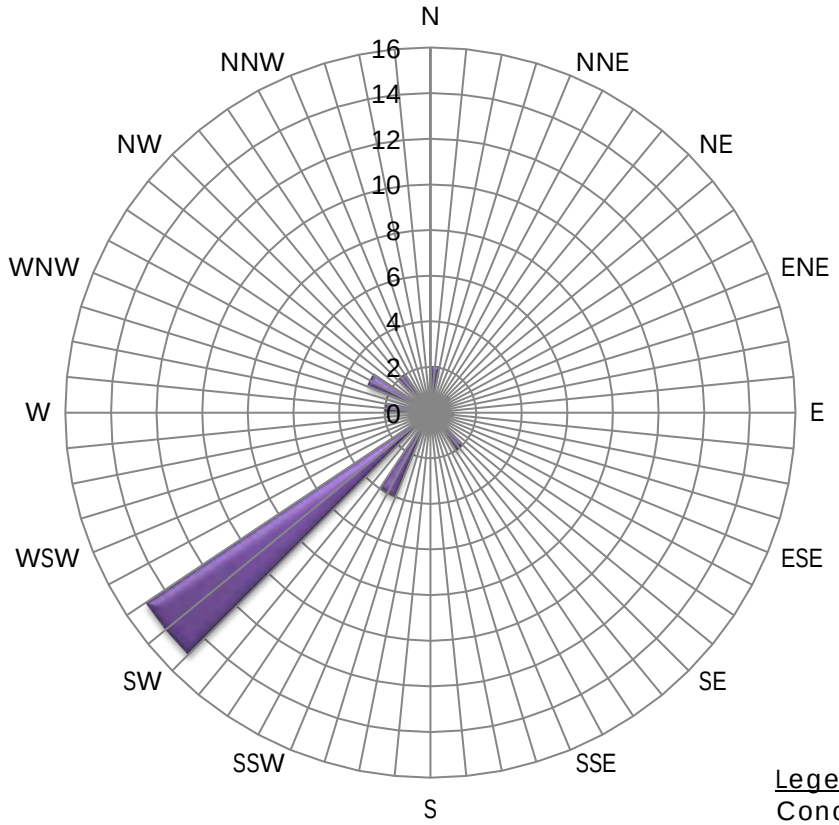
FIGURE: 8

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018

V:\1857\active\Secor\CADD_00 OTHER OFFICES\01-REDMOND\7-11\25821\2018\FIG-7a-7d 25821_2015.dwg modified by MiRamirez on Oct 15, 2018 - 14:12

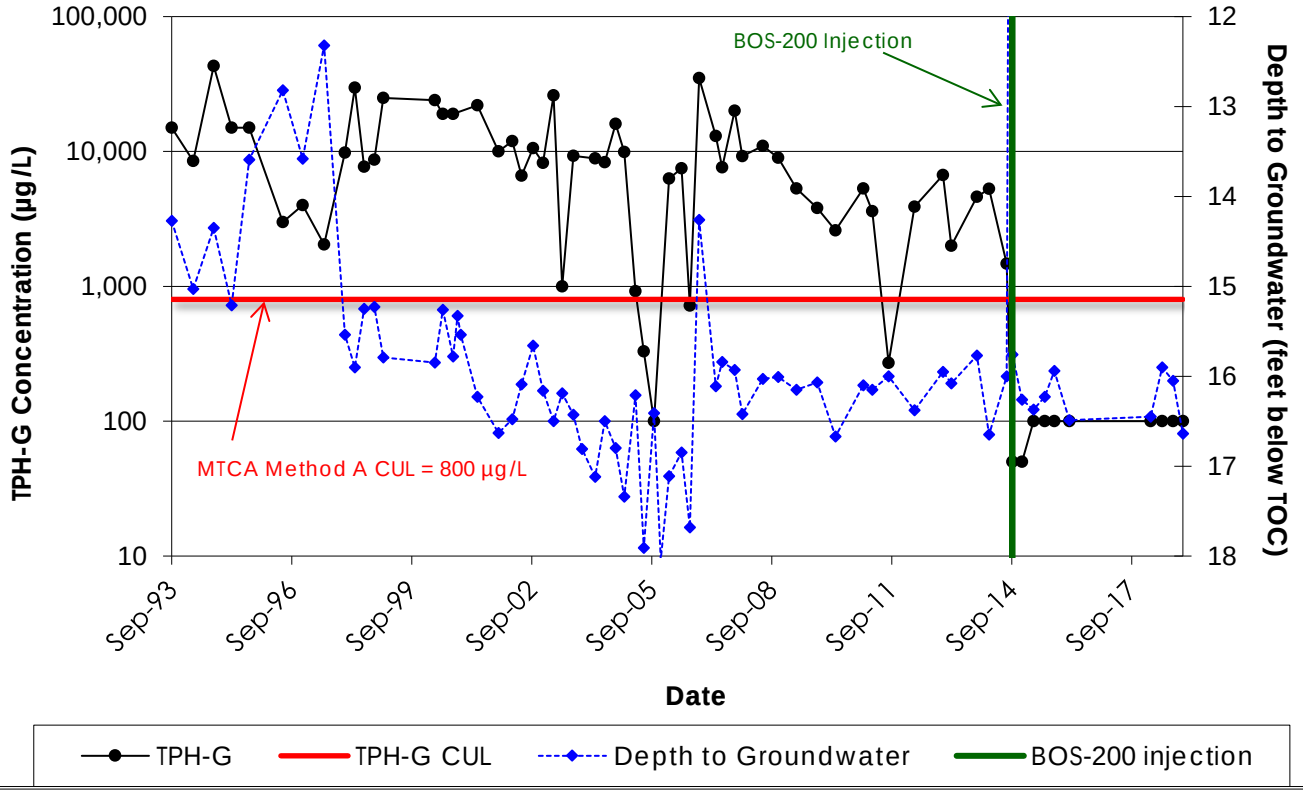
Graphs

Graph 1
Groundwater Flow Direction Rose Diagram
7-Eleven Store No. 25821
1824 George Washington Way
Richland, Washington

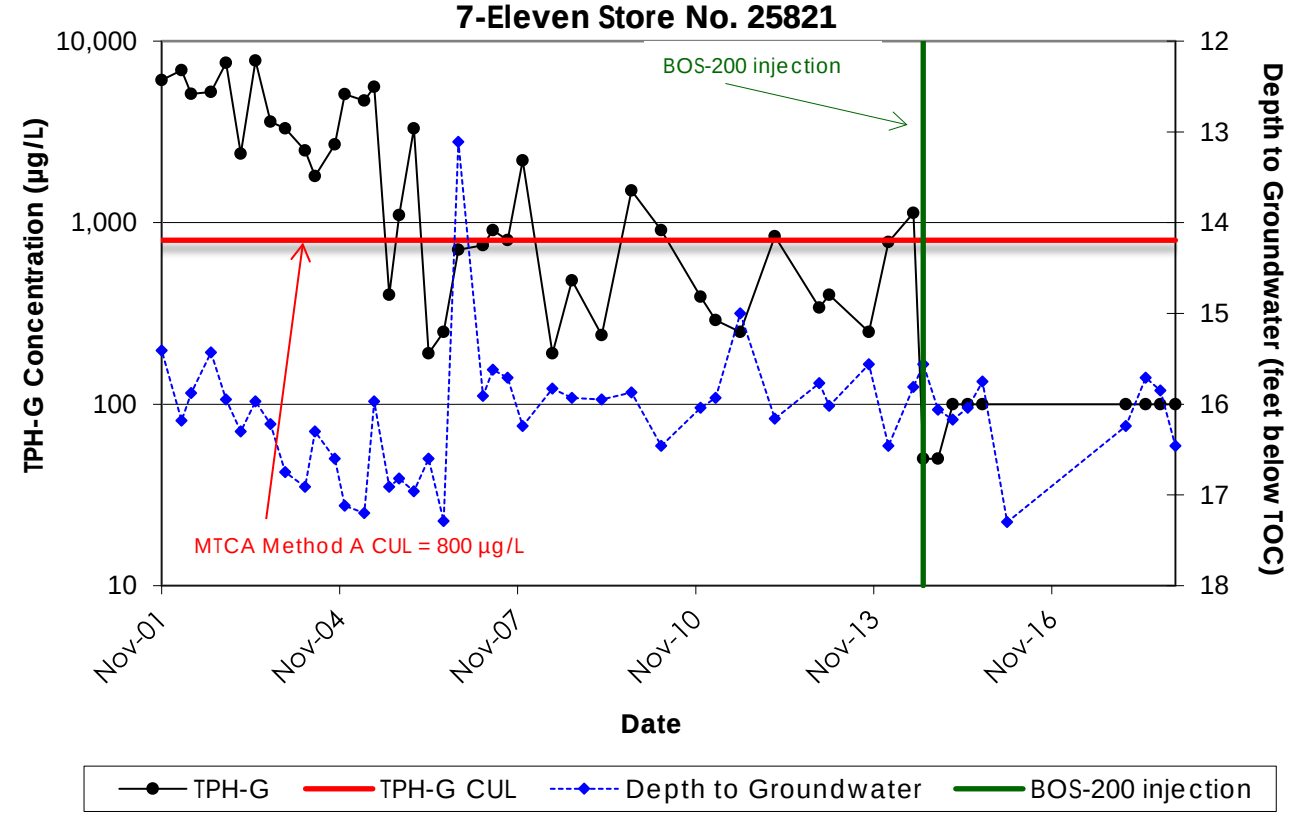


Legend
Concentric Circles represent Quarterly Monitoring Events
Fourth Quarter 2002 through First Quarter 2016
41 Data Points Shown

Graph 2
MW-6 Dissolved TPH-G Concentration vs. Time
7-Eleven Store No. 25821



Graph 3
MW-7 Dissolved TPH-G Concentration vs. Time
7-Eleven Store No. 25821



Appendix A

Ecology's Further Action Letter (dated December 13, 2017)

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

December 13, 2017

Paul Fairbairn
Stantec Consulting Services, Inc.
11130 NE 33rd Pl Ste 200
Bellevue, WA 98004

Re: Further Action at the following Site:

Site Name:	7 Eleven 25821
Site Address:	1824 George Washington Way, Richland
Facility Site No.:	77113577
Cleanup Site No.:	6650
VCP Project No.:	CE0457

Dear Mr. Fairbairn:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the 7 Eleven 25821 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

YES. Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline Range Petroleum Hydrocarbons (GRPH), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) into soil.
- GRPH, BTEX, and lead into groundwater.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

Report Title	Prepared by	Date
Underground Fuel Storage Tank Closure Chronology Store Number 25821, 1824 George Washington Way, Richland, WA	Kleinfelder	June 1989
Phase II Soil and Ground Water Assessment Store, Number 25821, 1824 George Washington Way, Richland, WA	Kleinfelder	Sept. 1989
Draft Feasibility Review and Draft Cleanup Action Plan, 7-11 Store No 25821, 1824 George Washington Way, Richland, WA	Kleinfelder	Jan. 1992
Limited Phase II Environmental Site Assessment Report for 7-Eleven, Inc., 1824 George Washington Way, Richland, WA	SECOR International, Inc.	Dec. 2004
Cleanup Action Report, Former 7-Eleven Store 25821, Wascher Mobil Station, 1824 George Washington Way, Richland, WA	Stantec Consulting Services, Inc. (Stantec)	May 2017
Quarterly Groundwater Monitoring and Remediation Progress Reports for Former 7-Eleven Store No. 25821	Various Authors	1989-2016
Department of Ecology Correspondence File	--	--

These documents are kept at the Central Regional Office (CRO) of Ecology for review by appointment only. You can make an appointment by calling the CRO resource contact at (509) 575-2027.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. **Characterization of the Site.**

Ecology has determined your characterization of the Site **is not** sufficient to establish cleanup standards or select a cleanup action.

A retail fueling station operated at the Site property from the late 1940s until the late 1980s. Three (3) generations of Underground Storage Tanks (USTs), and two (2) separate UST and dispenser island locations were identified in reports.

In 1989, petroleum contamination was discovered at the base of the excavation for the decommissioning and removal of the final generation of USTs, dispenser island, and canopy. Petroleum contamination was also discovered in a former tank basin, associated with the 1940s era USTs, located north of the existing restaurant building. The petroleum product was determined to be an aged-gasoline, but the exact source of the release(s) was never identified. The recently removed USTs were less than 3 years old, so are unlikely the source. The property has been utilized as a restaurant and parking lot since 1990.

Characterization activities performed at the Site include several soil and groundwater investigations between 1989 and 2015. A total of twelve (12) groundwater monitoring wells have been installed and sampled intermittently since 1989.

a. Model Remedy Requirements

i. Groundwater Model Remedy #5 was selected to demonstrate the Site has been cleaned up. In addition to the characterization data gaps discussed below, the following requirement of this model remedy **has not been** met:

- Sufficient groundwater monitoring data to confirm the MTCA Method A CULs are met throughout the Site.

  This model remedy relies on an empirical demonstration to show the residual soil contamination at the Site is no longer impacting groundwater and cleanup levels will not be exceeded in the future. Section 10.3 of Ecology's *Guidance for Remediation of Petroleum Contaminated Sites* outlines the requirements for groundwater confirmational monitoring to support the empirical demonstration. This Site falls under Stage 3 Monitoring, and requires samples be collected from each compliance monitoring point for at least eight (8) consecutive quarters. Only 3-5 quarterly sampling events were performed at each point. Certain conditions allow for the monitoring to be decreased to four (4) quarters. Ecology does not believe the Site qualifies for reduced monitoring considering source removal to the maximum extent practicable was not the primary remedy used for cleanup at the Site.

b. Data Gaps

i. Documents provided in Appendix C of the 2017 report appear to show fueling USTs located east of the former service station building, pump islands to the north and west, and an additional UST (waste oil?) to the south. This documentation does not match the locations of historic Site features shown on current site plans.

Additional documentation or clarification is necessary to verify the locations and Contaminants of Potential Concern (COPCs) selected for investigation are representative of the historic use of the Site property as a service station.

ii. More information is necessary to understand the Site groundwater flow direction; and thus, evaluate the sufficiency of the well network to demonstrate compliance with cleanup standards.

The 2017 report depicts the flow direction towards both the south and the northwest (Figures 7a-d). However, Site groundwater flow was consistently calculated towards the southeast from at least 1989 to 1997. Regional groundwater is typically influenced by the close proximity to the Columbia River, and is expected to flow generally towards the east. A brief review of nearby cleanup sites confirms a groundwater flow direction toward the east and southeast.

iii. The existing Site data has not characterized soil or groundwater to the east and southeast of the 1940s era UST location.

The soil boring log for monitoring well MW-5 documented staining at 16 ft bgs. No sample was submitted for analysis, but this depth is consistent with contamination found elsewhere at the Site.

Groundwater samples collected from monitoring well MW-5 had a maximum GRPH concentration of 470,000 ug/L in May 1990. MW-5 has been primarily dry during sampling events, and no attempt to investigate further has been made. Note: The groundwater monitoring data from June 1989 to January 1991, was not included in the results summary table.

iv. Inadequate justification has been made for the exclusion of lead, diesel, heavy oil, and nitrates from the list of Site Contaminants of Concern (COCs).

- **Lead** – The 2017 report states the "total lead exceedances observed in February 2014 in well MW-10 and March 2015 in well MW-11 are not representative of lead concentrations in groundwater based on historical groundwater results and dissolved analytical results (February 2016)." Very little data has been collected regarding lead, and more will be necessary to support this conclusion.

  A single petroleum contaminated soil sample was analyzed for lead in 1989. All other soil results have been from clean, or nearly clean, samples.

  It is possible the concentrations in groundwater are the result of suspended solids in the samples. It is recommended that analysis for dissolved and total lead be performed during future sampling events.

- **Nitrate** - Nitrate concentrations in groundwater exceeded both the MTCA Method B CUL and the National Primary Drinking Water Maximum Contaminant Level (MCL) for drinking water quality during the September 2014 and June 2015 sampling events. The elevated concentrations are assumed to be the result of interim action subsurface injections, and sufficient monitoring is required to verify nitrate concentrations have decreased to an appropriate level.

- **Diesel and Heavy Oil** – Diesel was not considered a COPC because there was no record of storage or use at the Site. Heavy oil has never been considered a COPC. However, several soil samples collected during the 2004 and 2015 investigations had reported concentrations of diesel and/or heavy oil below MTCA Method A cleanup levels. The Site was an active service station from the late 1940s, and the use or storage of these products is probable.

v. The 2015 confirmatory soil samples are not sufficient to demonstrate soil concentrations are below the direct contact cleanup level for Total Petroleum Hydrocarbons (TPH).

The 1989 reports describe a visible smear zone between about 11 – 14 feet below ground surface (ft bgs) in the open excavation. Only a few soil samples have been collected from this range, but GRPH above MTCA Method A cleanup levels were reported east of the larger tank pit excavation at 12 ft bgs during the 2000 investigation.

vi. The empirical demonstration performed did not sufficiently demonstrate that the characteristics of the Site (e.g. depth to groundwater) are representative of future Site conditions.

Groundwater contaminant concentrations have historically been higher during high water table sampling events; presumably due to exposure to soil contamination in the smear zone. The sampling data collected (both soil and groundwater) does not sufficiently demonstrate that: 1) soil contamination does not still exist in the smear zone, and 2) if soil contamination is still present in the smear zone, it will not recontaminate groundwater if the water table rises above the recent average.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site **do not** meet the substantive requirements of MTCA.

a. Soil

The soil cleanup standards selected rely upon an empirical demonstration that the soil to groundwater leaching pathway is no longer complete; and therefore, the human direct contact cleanup levels are applicable.

In order to justify the use of the direct contact cleanup level, a demonstration that the characteristics of the Site (e.g. depth to groundwater) are representative of future Site conditions still needs to be made.

b. Groundwater

MTCA Method A cleanup levels and the standard point of compliance were selected for groundwater, and meet the requirements of MTCA

3. Cleanup.

Ecology has determined the cleanup you performed does not meet any cleanup standards at the Site.

The extent of soil and groundwater contamination at the Site has not been sufficiently characterized. Ecology is unable to evaluate compliance with the selected cleanup standards.

The cleanup actions performed include:

- 1989 – Limited contaminated soil removal during UST decommissioning.
- 1996 – Oxygen Releasing Compound (ORC) was placed in the bottom of MW-7.
- 1999-2001 – Nitrate solution injected into MW-7.
- 2014 – BOS 200® was injected into subsurface to enhance biodegradation processes.

Limitations of the Opinion

1. **Opinion does not settle liability with the state.**

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

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

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

2. **Opinion does not constitute a determination of substantial equivalence.**

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

3. **State is immune from liability.**

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

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 454-7839 or e-mail at Jennifer.Lind@ecy.wa.gov.

Sincerely,

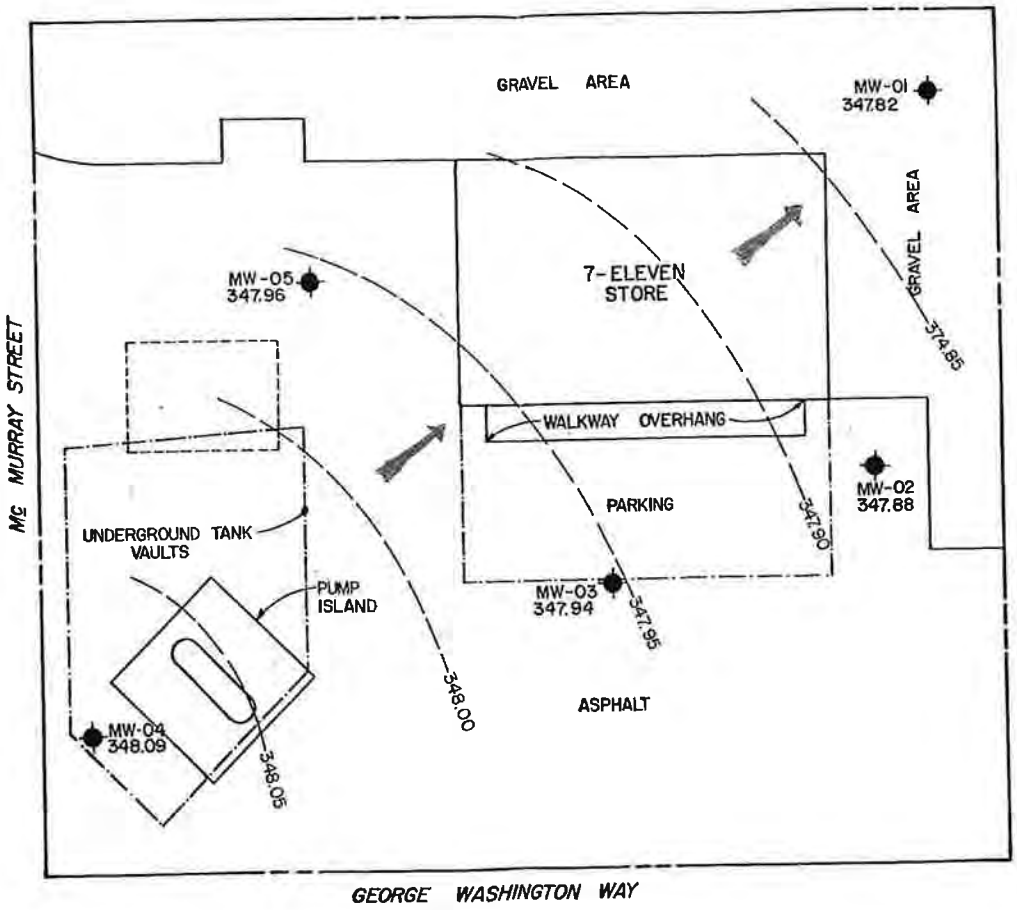
Jennifer Lind
CRO Toxics Cleanup Program

cc: Jose Rios, 7 Eleven
Matt Alexander, VCP Billing

Appendix B

Groundwater Elevation Contour Maps (1989-Present)

Fig. B-1
(10/2018



July 1, 1989

LEGEND

- MW-3 / 168.00 — MONITORING WELL GROUND WATER ELEVATION (7/1/89)
- GW Flow direction
- INFERRED GROUND WATER CONTOUR 7/1/89
- APPRX. LOCATION OF HISTORIC TANK VAULT
- CONCRETE PAD

SCALE

0' 5' 10' 20'

N

NOTE: Contours present an interpretation of available data on date of measurement. Contours may change with additional data points, weather changes, tidal action, construction activities, etc.

KLEINFELDER

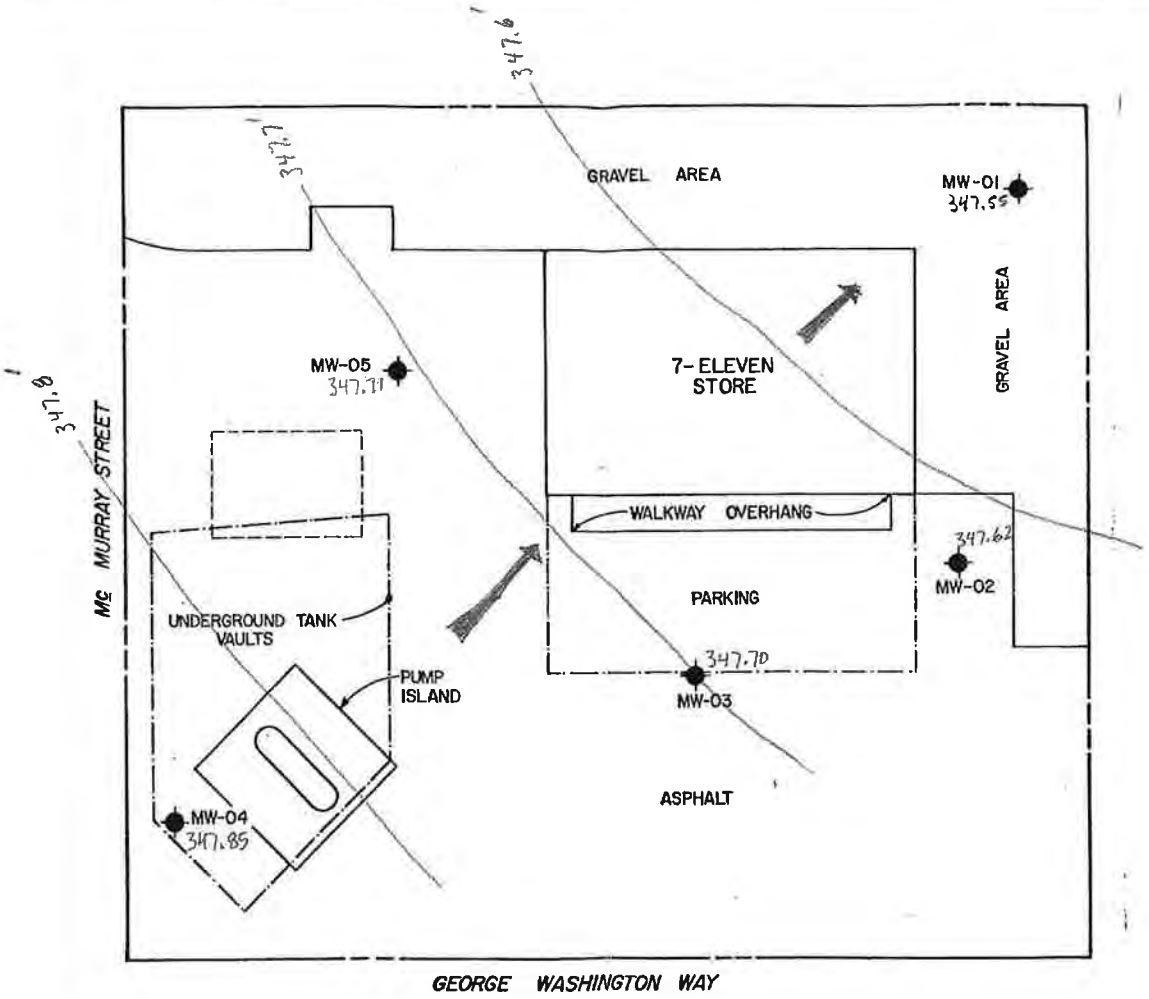
PROJECT NO. 60-1049-02

GROUND WATER TABLE CONTOUR MAP
7-ELEVEN STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

PLATE

M-7

Fig. 8-2 (10/2018)



Nov. 19, 1989

LEGEND

- GW Flow Direction
- APPRX. LOCATION OF HISTORIC TANK VAULT
- CONCRETE PAD
- MW-01 MONITORING WELL

SCALE

0' 5' 10' 20'

N

KLEINFELDER

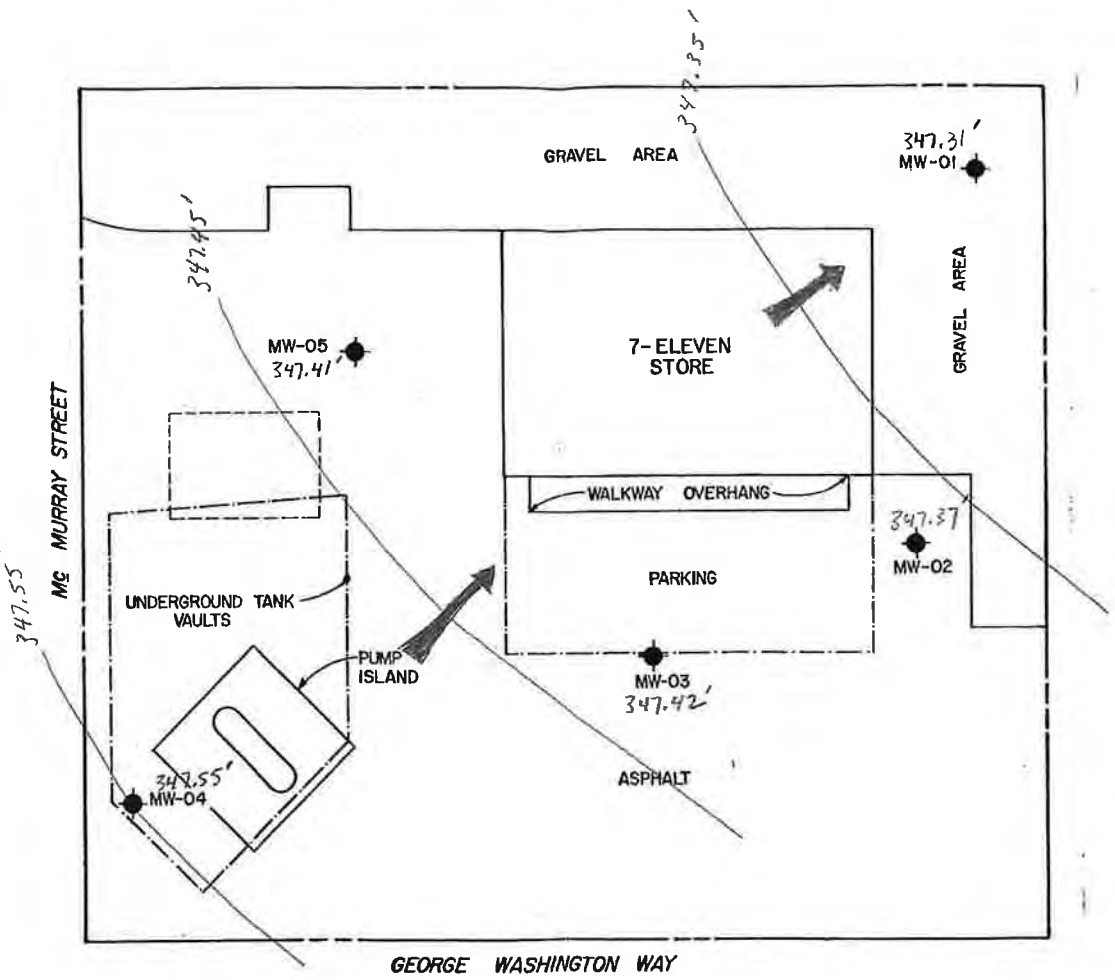
PROJECT NO. 60-1049-02

SCHEMATIC SITE PLAN
7-ELEVEN STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

PLATE

M-7

Fig. B-3
(10/2018



Feb. 20, 1990

LEGEND

GW Flow Direction

APPRX. LOCATION OF HISTORIC TANK VAULT

CONCRETE PAD

MW-01 MONITORING WELL

SCALE

0' 5' 10' 20'

N

KLEINFELDER

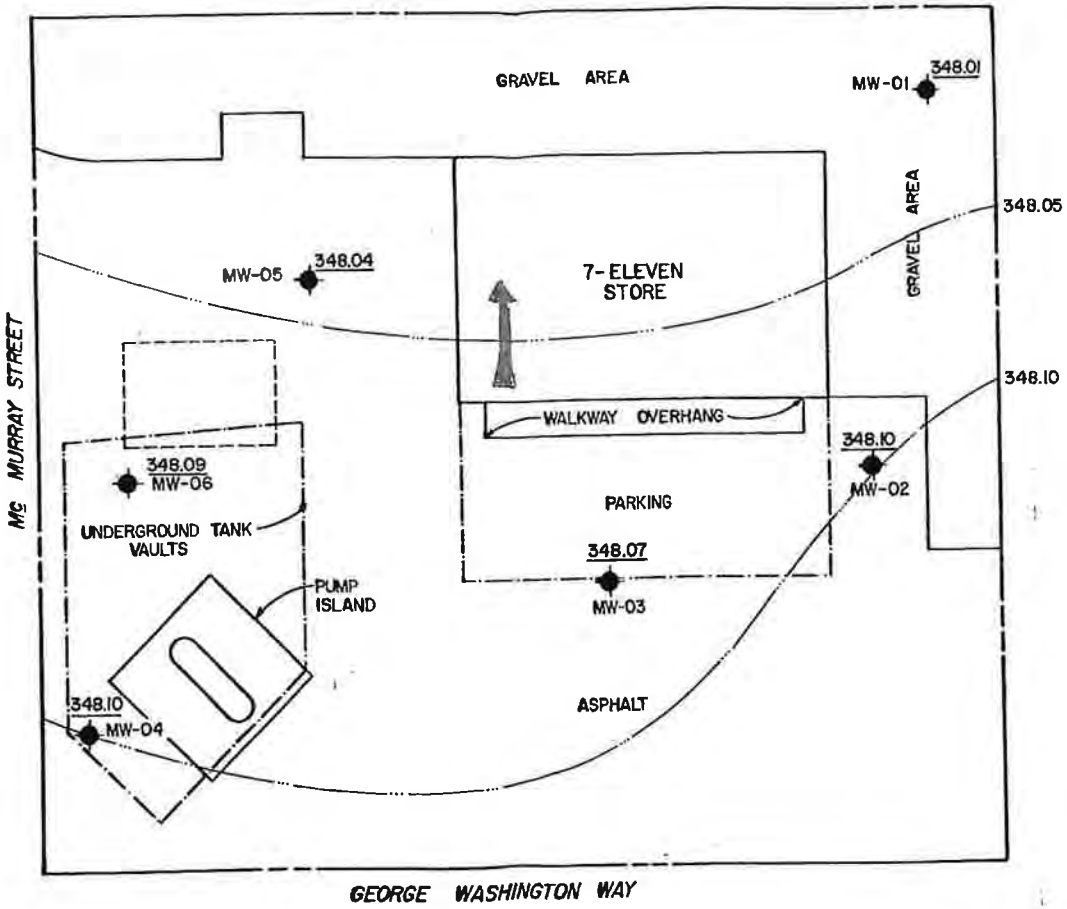
PROJECT NO. 60-1049-02

SCHEMATIC SITE PLAN
7-ELEVEN STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

PLATE

M-7

Fig. B-4 (10/2018)



May 24, 1990

LEGEND

- GROUNDWATER CONTOUR
- APPRX. LOCATION OF HISTORIC TANK VAULT
- CONCRETE PAD
- GW Flow Direction
- 348.10 MW-01 MONITORING WELL & ELEVATION

SCALE

0' 5' 10' 20'

N

NOTE: Contours are an interpretation of the data presented. Contours may change with additional data points, weather changes, tidal action, construction activities, etc.

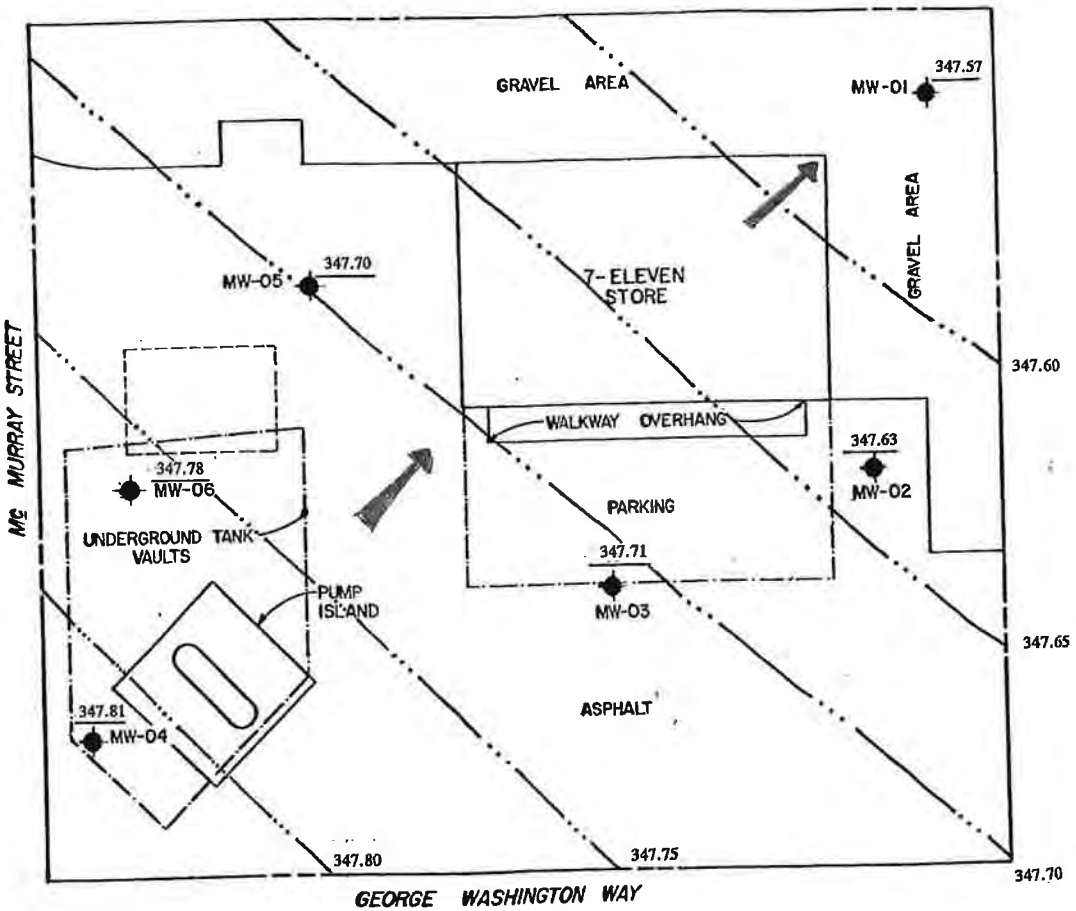
KLEINFELDER

PROJECT NO. 60-1075-01

GROUNDWATER CONTOUR MAP
7-ELEVEN STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

PLATE

Fig. B-5
(10/2018)



January 9, 1991

GW Flow Direction

LEGEND

- GROUNDWATER CONTOUR
- APPRX. LOCATION OF HISTORIC TANK VAULT
- CONCRETE PAD
- 348.10 MW-01 Monitoring Well & Ground Water Elevation

SCALE

0' 5' 10' 20'

N

NOTE: Contours are an interpretation of the data presented. Contours may change with additional data points, weather changes, tidal action, construction activities, etc.

KLEINFELDER

January 9, 1991

PROJECT NO. 60-1075-02

GROUNDWATER CONTOUR MAP
7-ELEVEN STORE NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

PLATE

M7

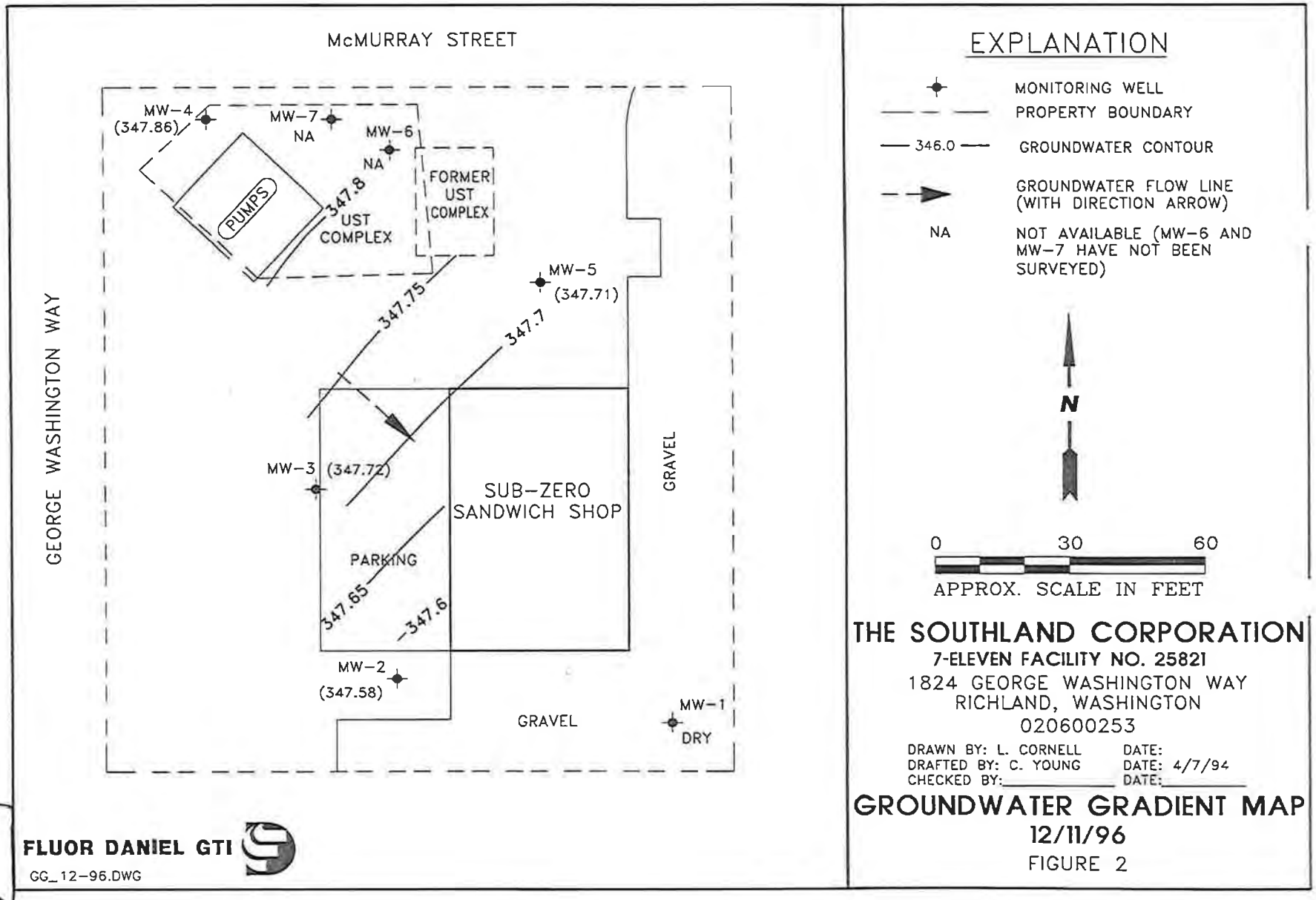
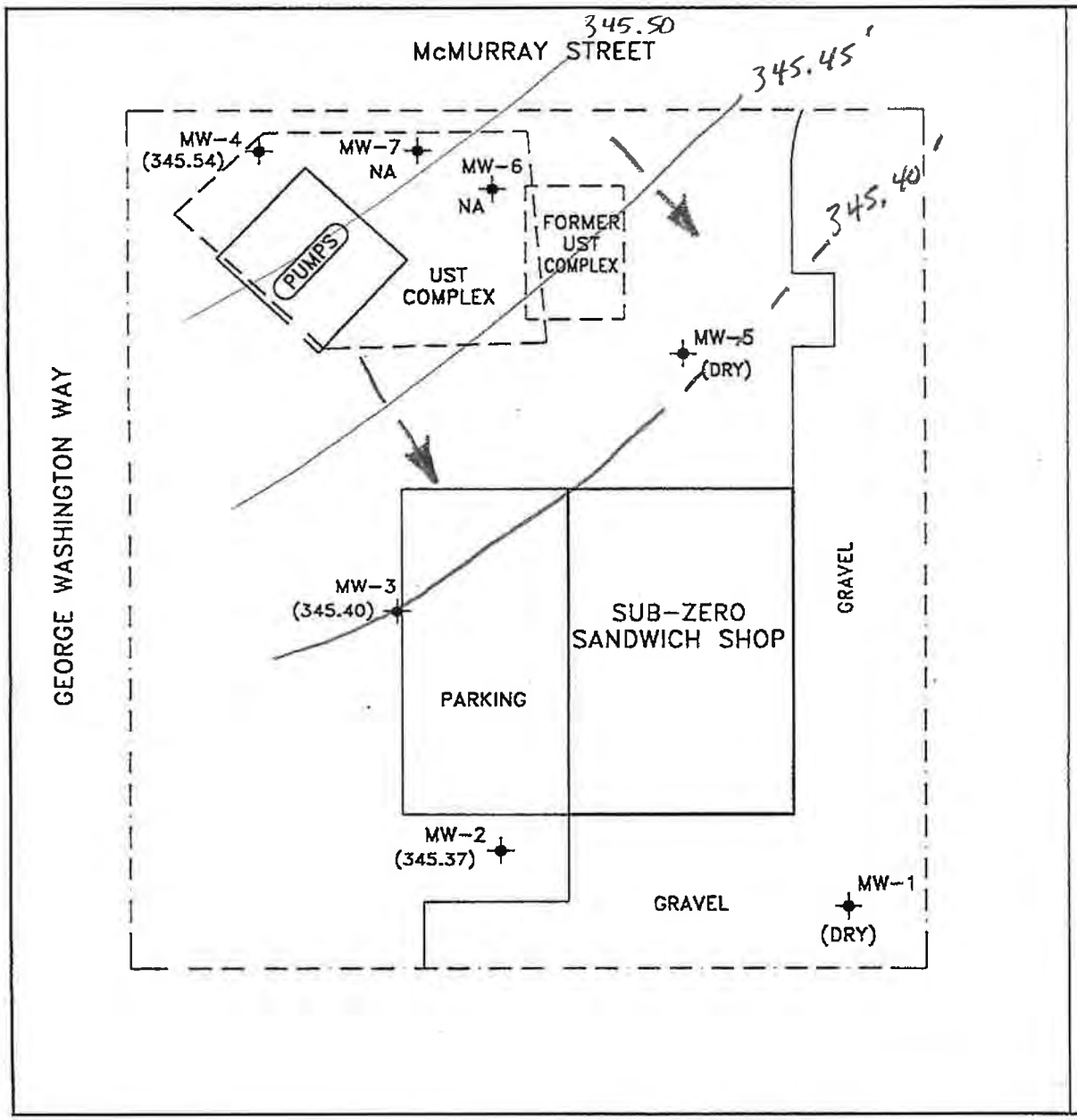


Fig. B-6
(10/2018)



EXPLANATION

- MONITORING WELL
- PROPERTY BOUNDARY
- 346.0 — GROUNDWATER CONTOUR
- GROUNDWATER FLOW LINE (WITH DIRECTION ARROW)
- NA — NOT AVAILABLE (MW-6 AND MW-7 HAVE NOT BEEN SURVEYED)

N

0 30 60

APPROX. SCALE IN FEET

7-ELEVEN, INC.

7-ELEVEN FACILITY NO. 25821

1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON
805990

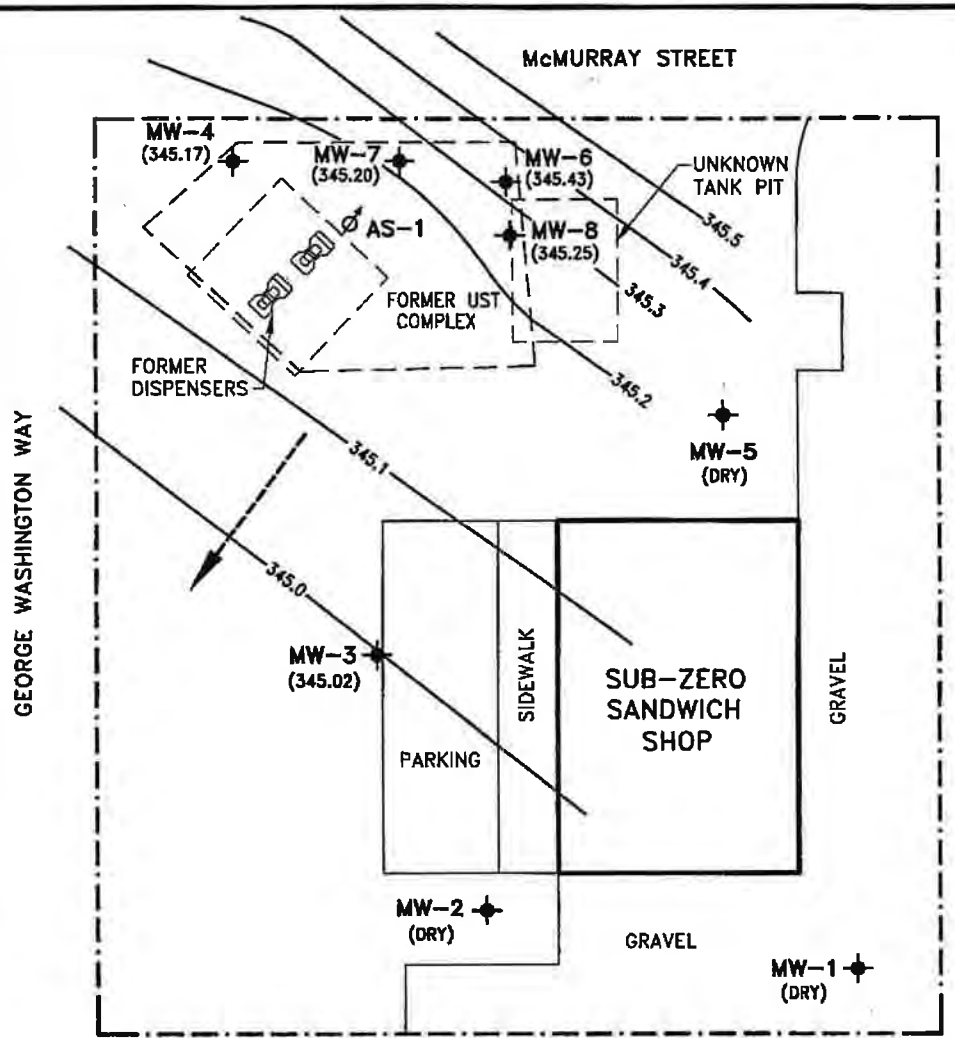
DRAWN BY: DATE:
DRAFTED BY: DATE:
CHECKED BY: DATE:

GROUNDWATER GRADIENT MAP

6/27/00

FIGURE 2

Fig. 8-7 (10/2018)



EXPLANATION

- MONITORING WELL
- SPARGE WELL
- PROPERTY BOUNDARY
- (345.17) GROUNDWATER ELEVATION IN FEET
- 345.3 GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION

N

0 30 60

APPROX. SCALE IN FEET

7-ELEVEN, INC.

7-ELEVEN FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON
825265

DRAWN BY: M. PORTACIO DATE: 01/09/01
DRAFTED BY: K. HANSON DATE: 1/29/02
REVIEWED BY: R. FONDA DATE: 3/14/02

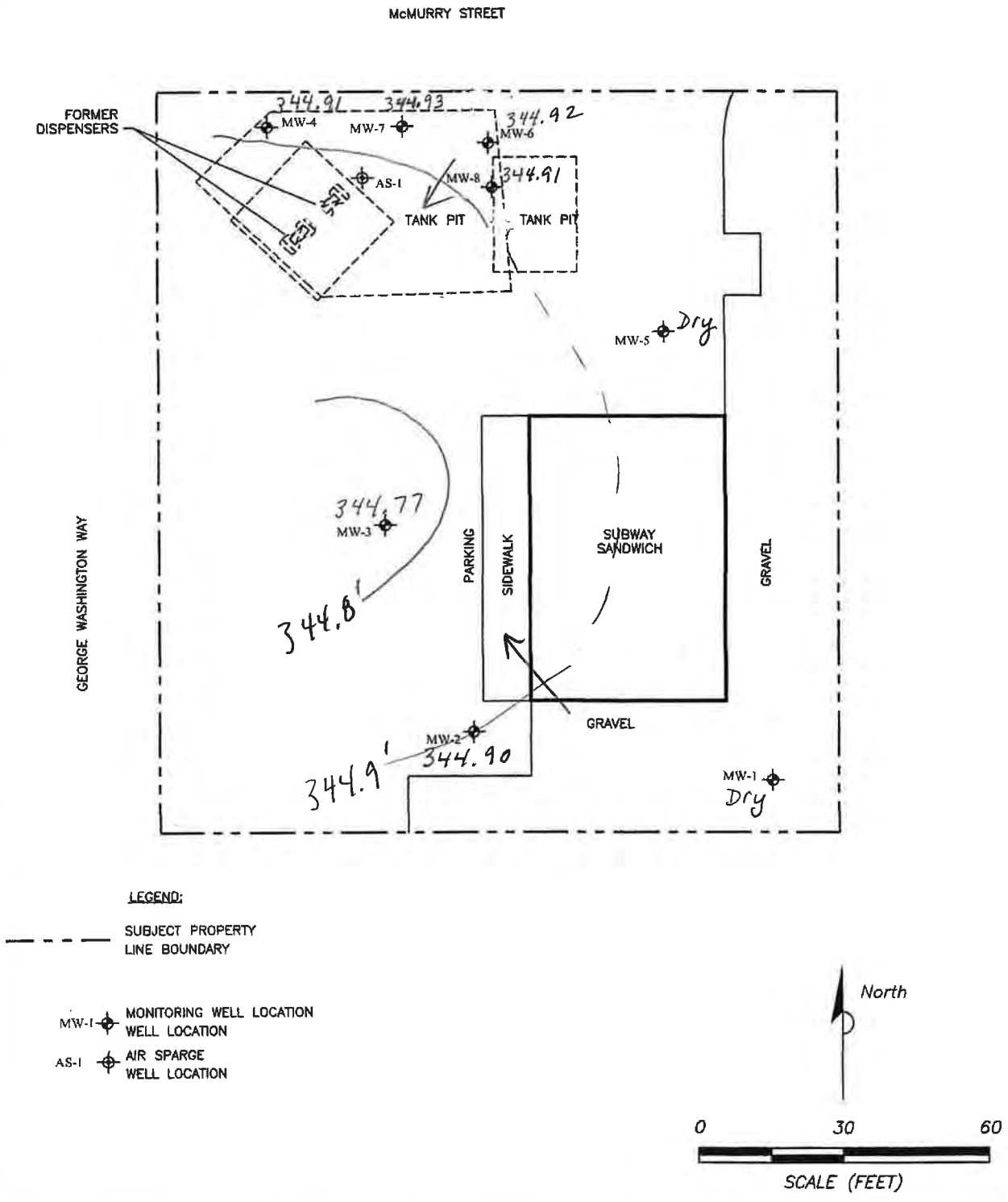
GROUNDWATER GRADIENT MAP 04/24/01

FIGURE 3

IT CORPORATION

N:\DWG\DRAFT\SEVEN-ELEVEN\25821\DWG\GGM-3QTR-01-F3.DWG 3/14/02 PLOT 1=30

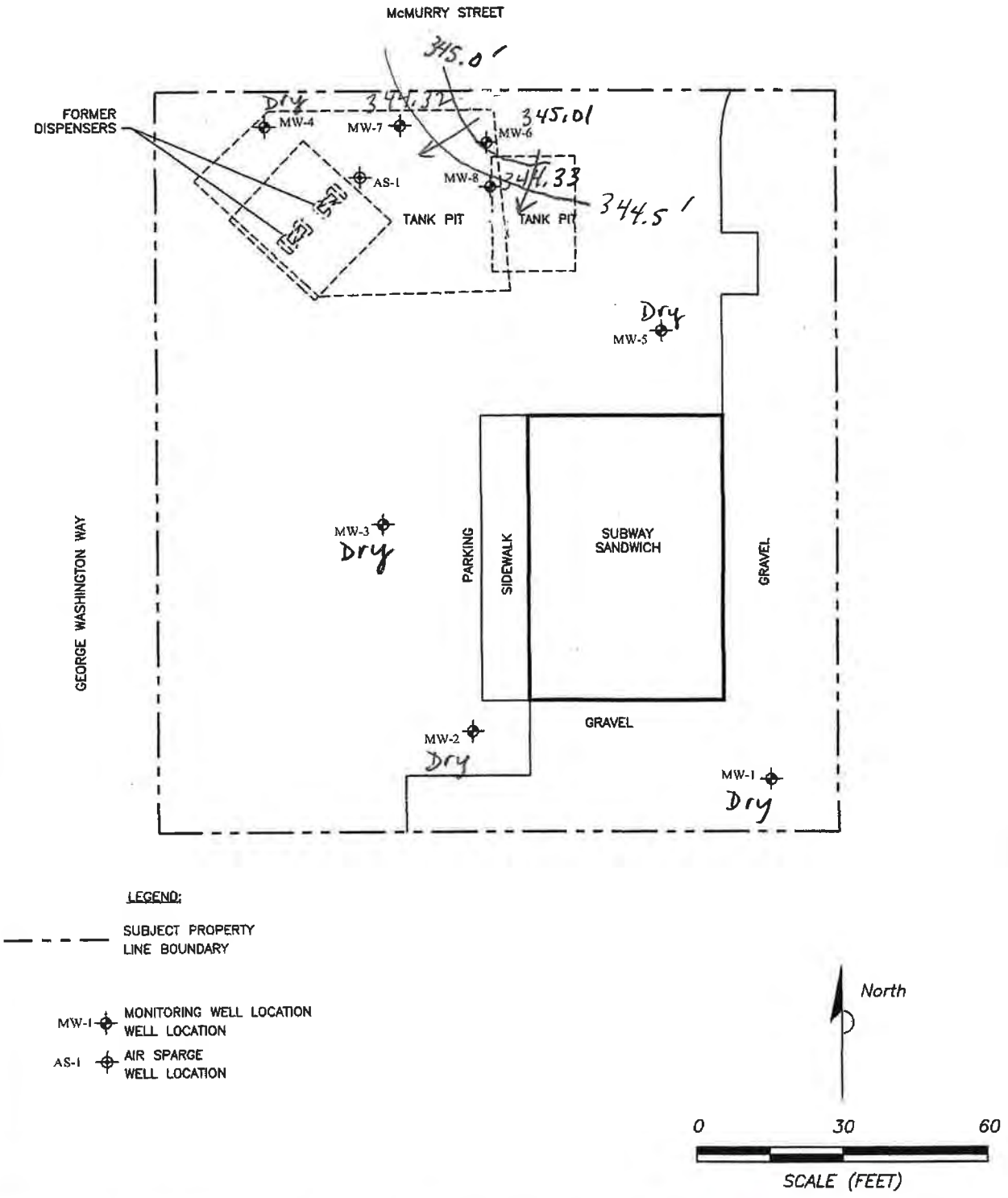
Fig. 8-8 (10/2000)



DRAWN BY: SES CHECKED: APPROVED: DATE: 10/8/04 JOB No.: 01EL.25821.04 CAD FILE: PATH ON LEFT	PREPARED BY: SECOR 12034 134th COURT NE REDMOND, WASHINGTON	PREPARED FOR: 7-ELEVEN, INC. FACILITY NO. 25821 1824 GEORGE WASHINGTON WAY RICHLAND, WASHINGTON	March 20, 2003 GW Elev. Contours

20041103.09321858 R:\CAD\Cad_Files\Projects\7 ELEVEN\25821\25821(GP LOCATIONS).dwg

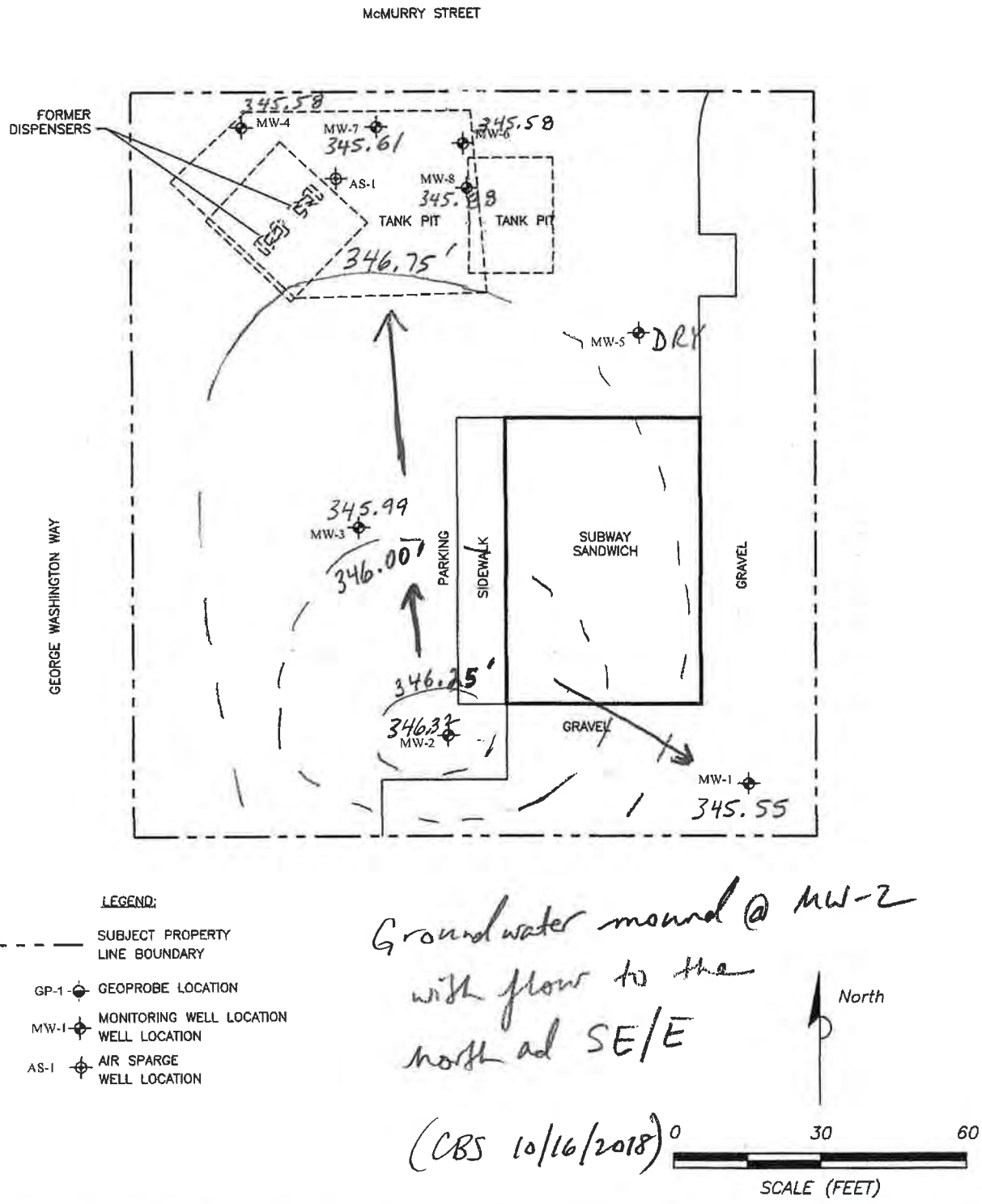
Fig. B-9
(10/2018)



DRAWN BY: SES CHECKED: APPROVED: DATE: 10/8/04 JOB No.: 01EL.25821.04 CAD FILE: PATH ON LEFT	PREPARED BY: SECOR 12034 134th COURT NE REDMOND, WASHINGTON	PREPARED FOR: 7-ELEVEN, INC. FACILITY NO. 25821 1824 GEORGE WASHINGTON WAY RICHLAND, WASHINGTON	Sept 21, 2005 GW Elev. Contours

20041103.09321858 R:\CAD\Cad_Files\Projects\7 ELEVEN\25821\25821(GP LOCATIONS).dwg

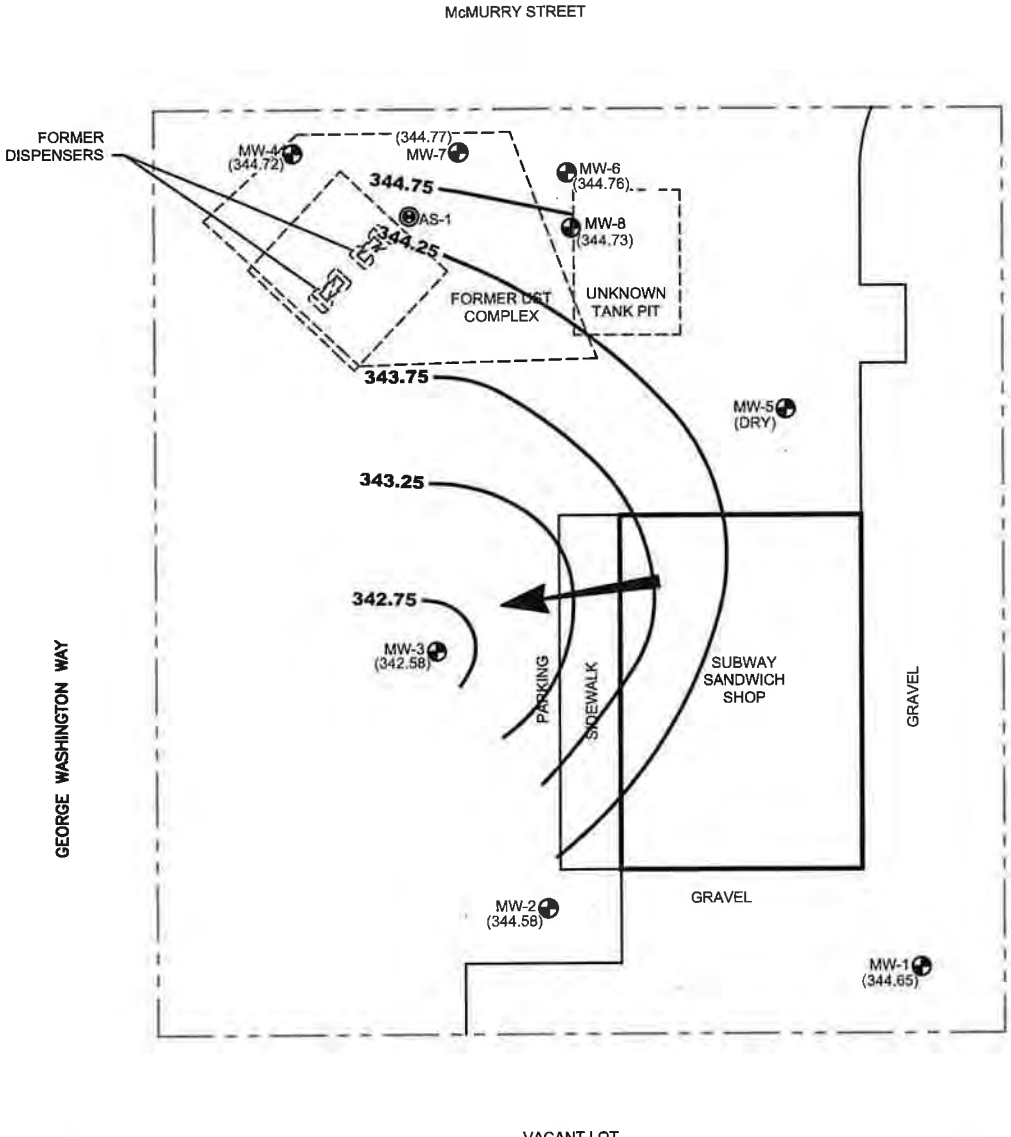
Fig. B-10
(10/2018)



DRAWN BY: SES CHECKED: APPROVED: DATE: 10/8/04 JOB No.: 01EL.25821.04 CAD FILE: PATH ON LEFT	PREPARED BY: SECOR 12034 134th COURT NE REDMOND, WASHINGTON	PREPARED FOR: 7-ELEVEN, INC. FACILITY NO. 25821 1824 GEORGE WASHINGTON WAY RICHLAND, WASHINGTON	June 5, 2007 Gw Elev. Contours

20041103.09321858 R:\CAD\Cad_Files\Projects\7 ELEVEN\25821\25821(GP LOCATIONS).dwg

Fig. B-11
(10/2018)



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- (345.36) RELATIVE GROUNDWATER ELEVATION (FEET)
- INFERRED GROUNDWATER FLOW DIRECTION
- 36 INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
- CONTOUR INTERVAL = 0.5 FEET

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
12034 132nd COURT NORTHEAST, SUITE 102
REDMOND, WASHINGTON 98052
PHONE: (425) 298-1000 FAX: (425) 298-1019

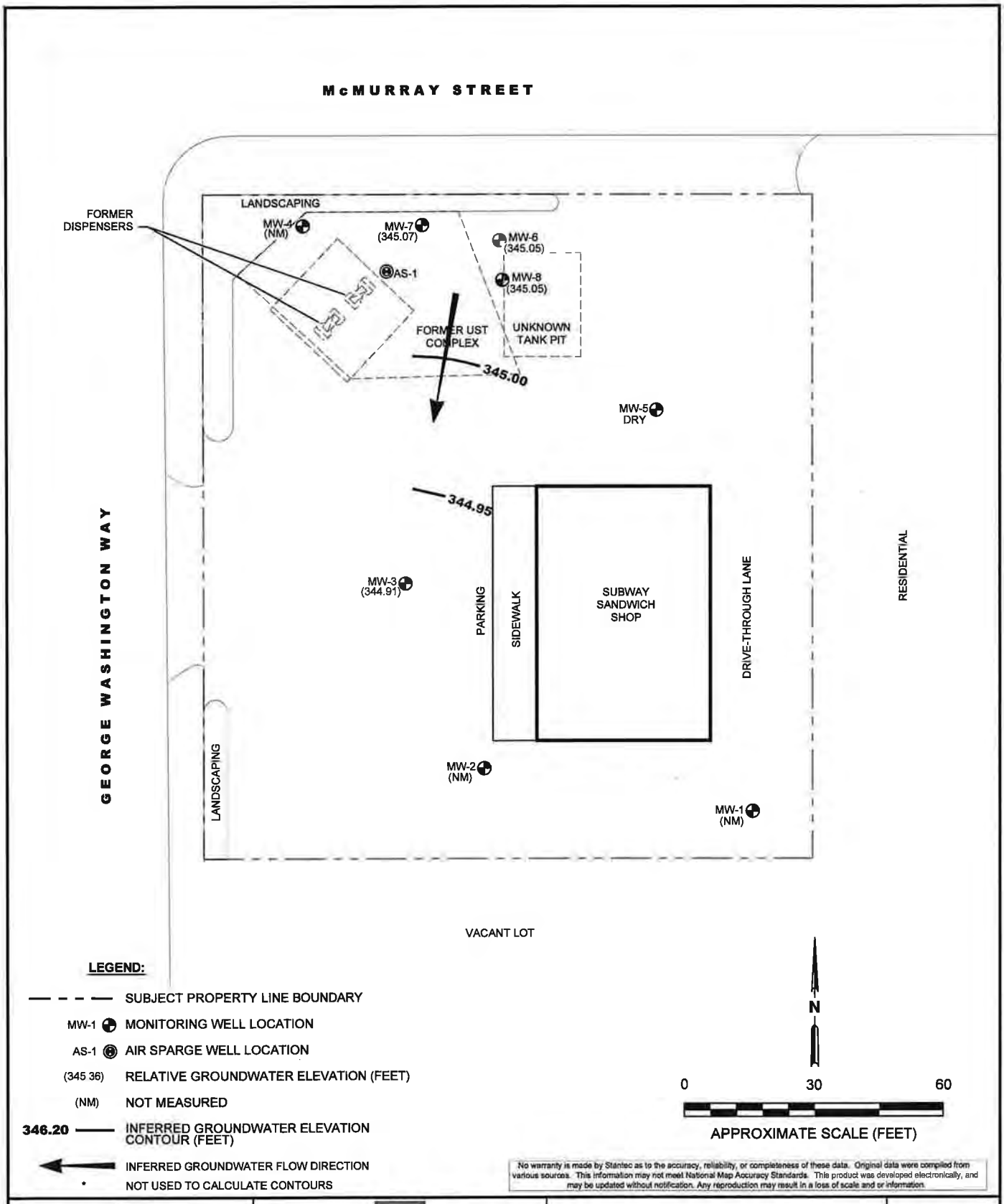
FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP APRIL 7, 2010

FIGURE: B-12 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
212302332	jr			10/12/10



Stantec
12034 132nd COURT NORTHEAST, SUITE 102
REDMOND, WASHINGTON 98052
PHONE: (425) 298-1000 FAX: (425) 298-1019

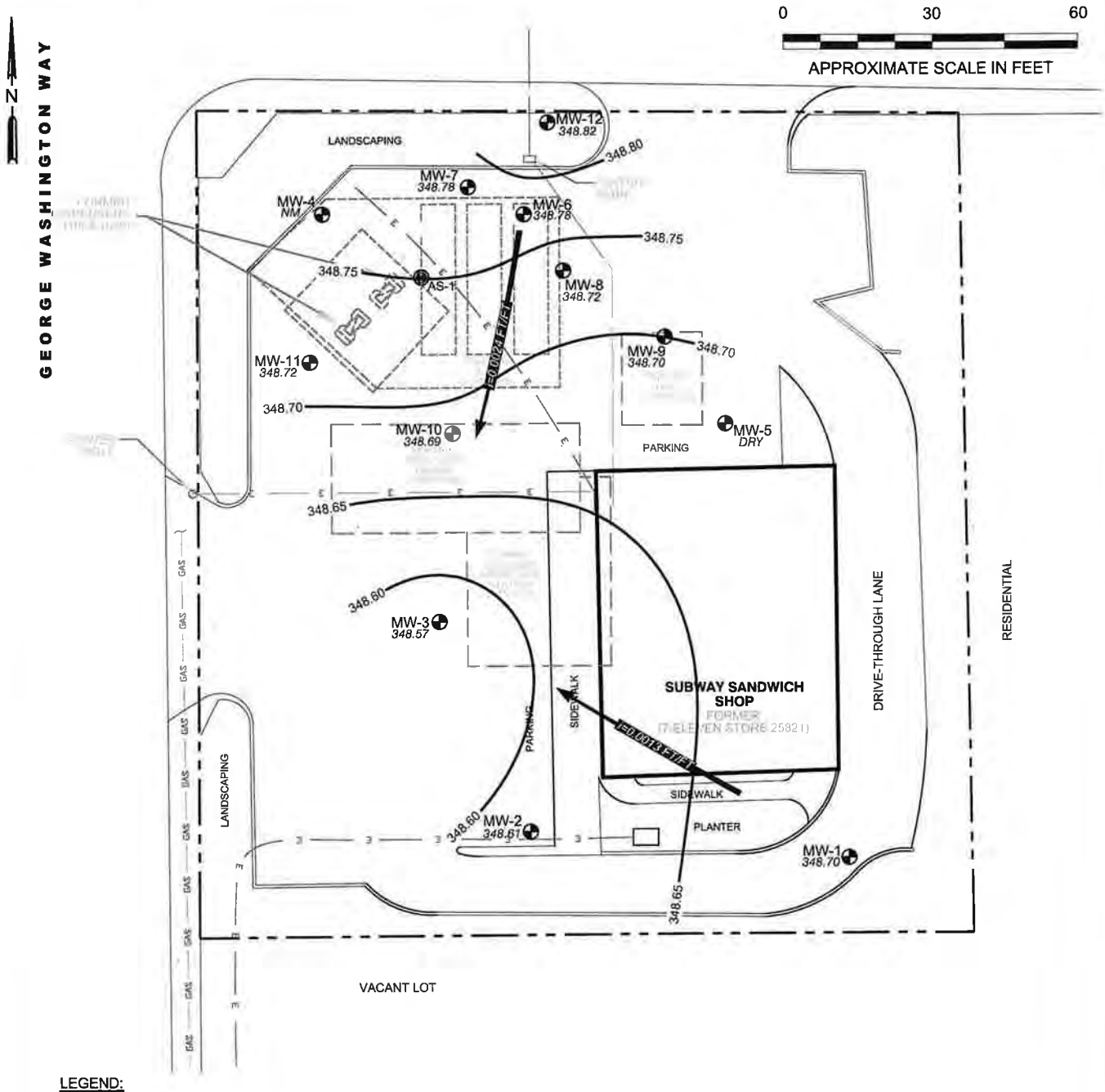
FOR: FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION MAP
MARCH 27, 2012

FIGURE: B-13 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
212302332	JCR			MAY 2012

P:\CADD\PROJECTS\7-11\25821\DWG\7-11_25821_2012 dwg modified by jresendiz on May 16, 2012 - 12:02



LEGEND:

— — —	SUBJECT PROPERTY LINE BOUNDARY
MW-1 ⊕	MONITORING WELL LOCATION
AS-1 ⊕	AIR SPARGE WELL LOCATION
348.70	RELATIVE GROUNDWATER ELEVATION (FEET)
NM	NOT MEASURED
348.60	INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
←	INFERRED GROUNDWATER FLOW DIRECTION

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

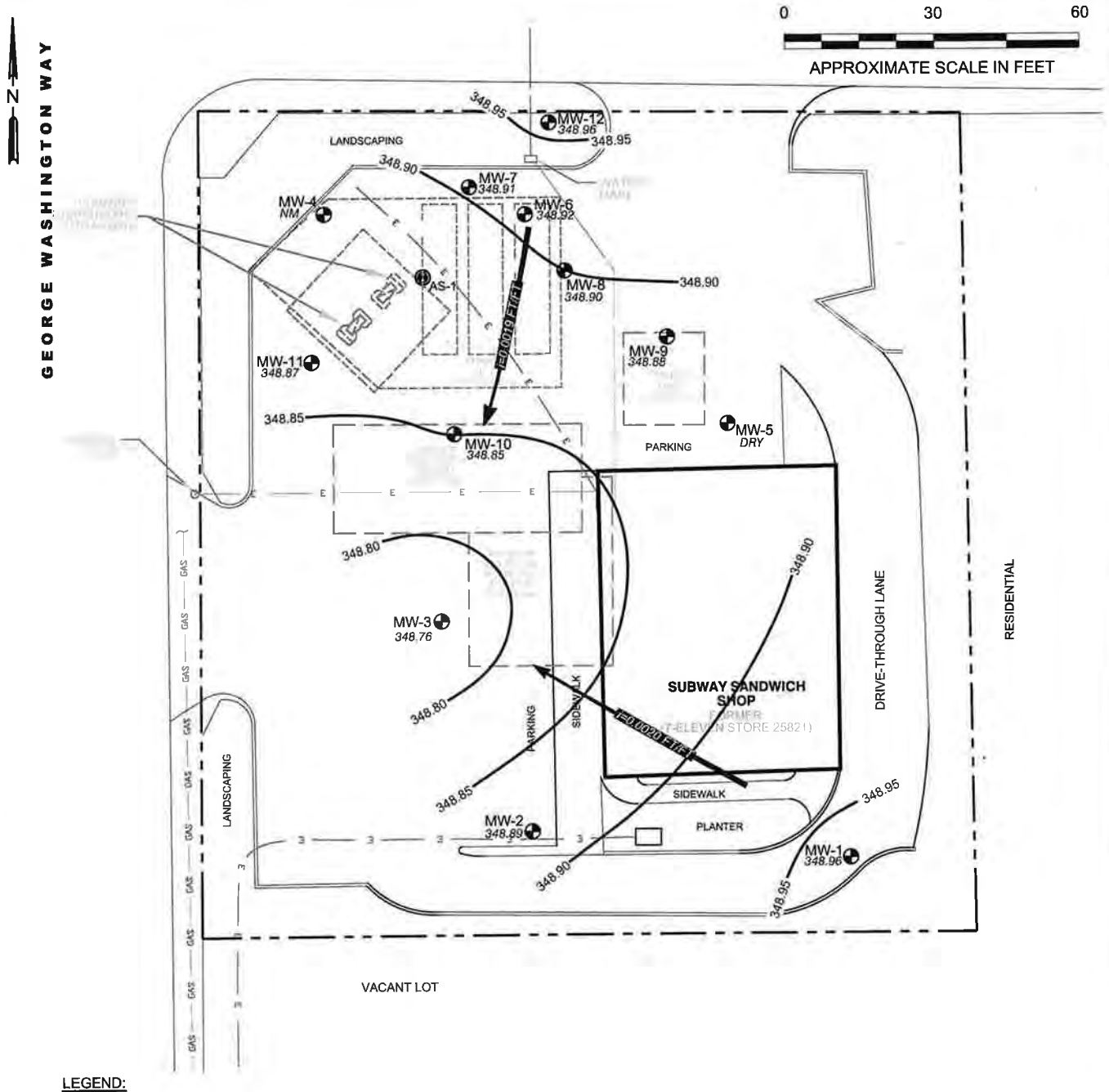
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP MARCH 19, 2015

FIGURE: B-14 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	DH	PF	NOV 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-7a-7d 25821_2015.dwg | Layout Tab: FIG-7a GW | Drafter: miramirez | Apr 27, 2017 at 13:46



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- 348.96 RELATIVE GROUNDWATER ELEVATION (FEET)
- NM NOT MEASURED
- **348.60** INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
- INFERRED GROUNDWATER FLOW DIRECTION

Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

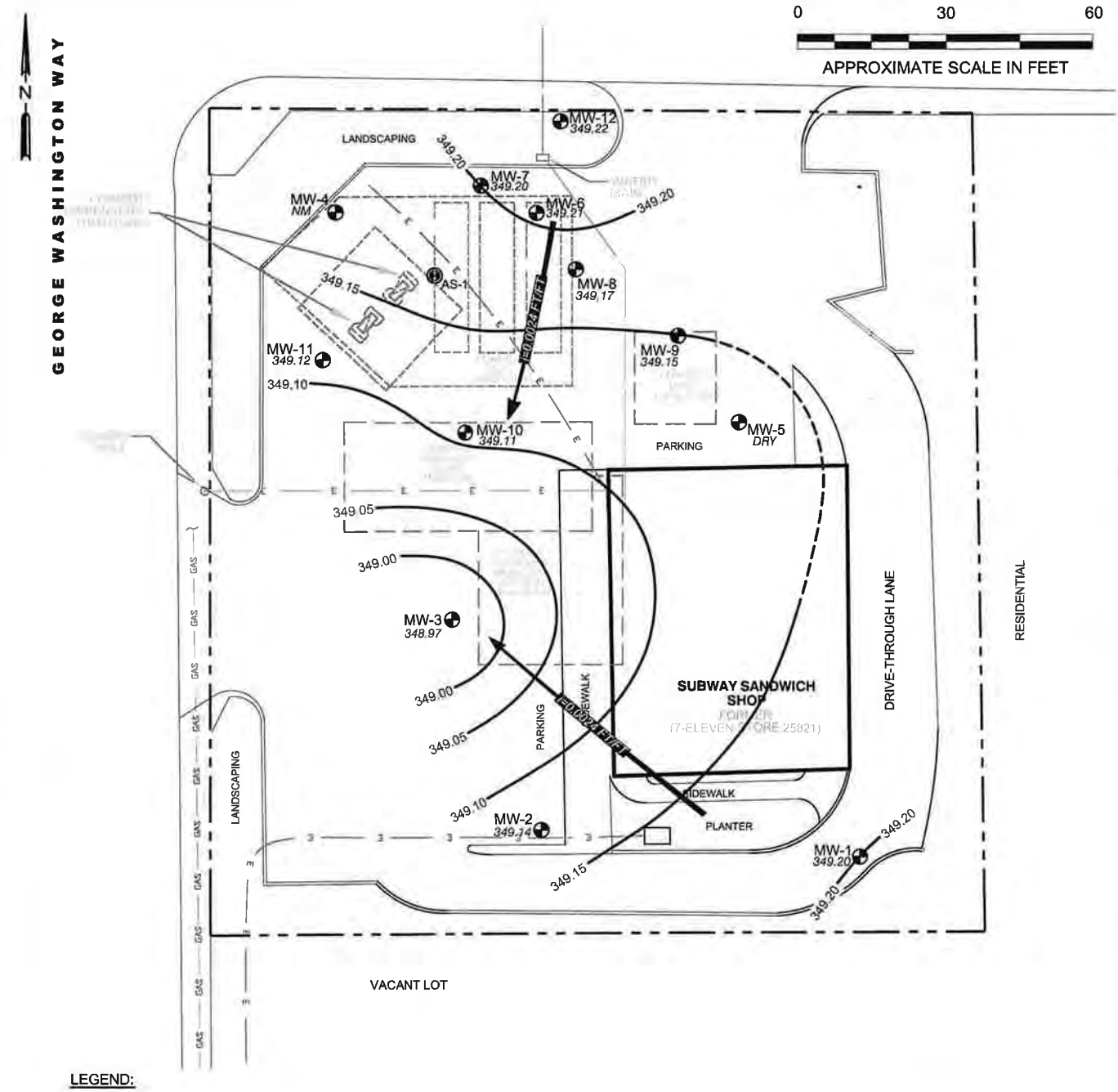
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP
JUNE 30, 2015

FIGURE: B-15 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	DH	PF	FEB 2016

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-7a-7d 25821_2015.dwg | Layout Tab: FIG-7b GW | Drafter: miramirez | Apr 27, 2017 at 13:41



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- 348.96 RELATIVE GROUNDWATER ELEVATION (FEET)
- NM NOT MEASURED
- **348.60** INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
- INFERRED GROUNDWATER FLOW DIRECTION

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

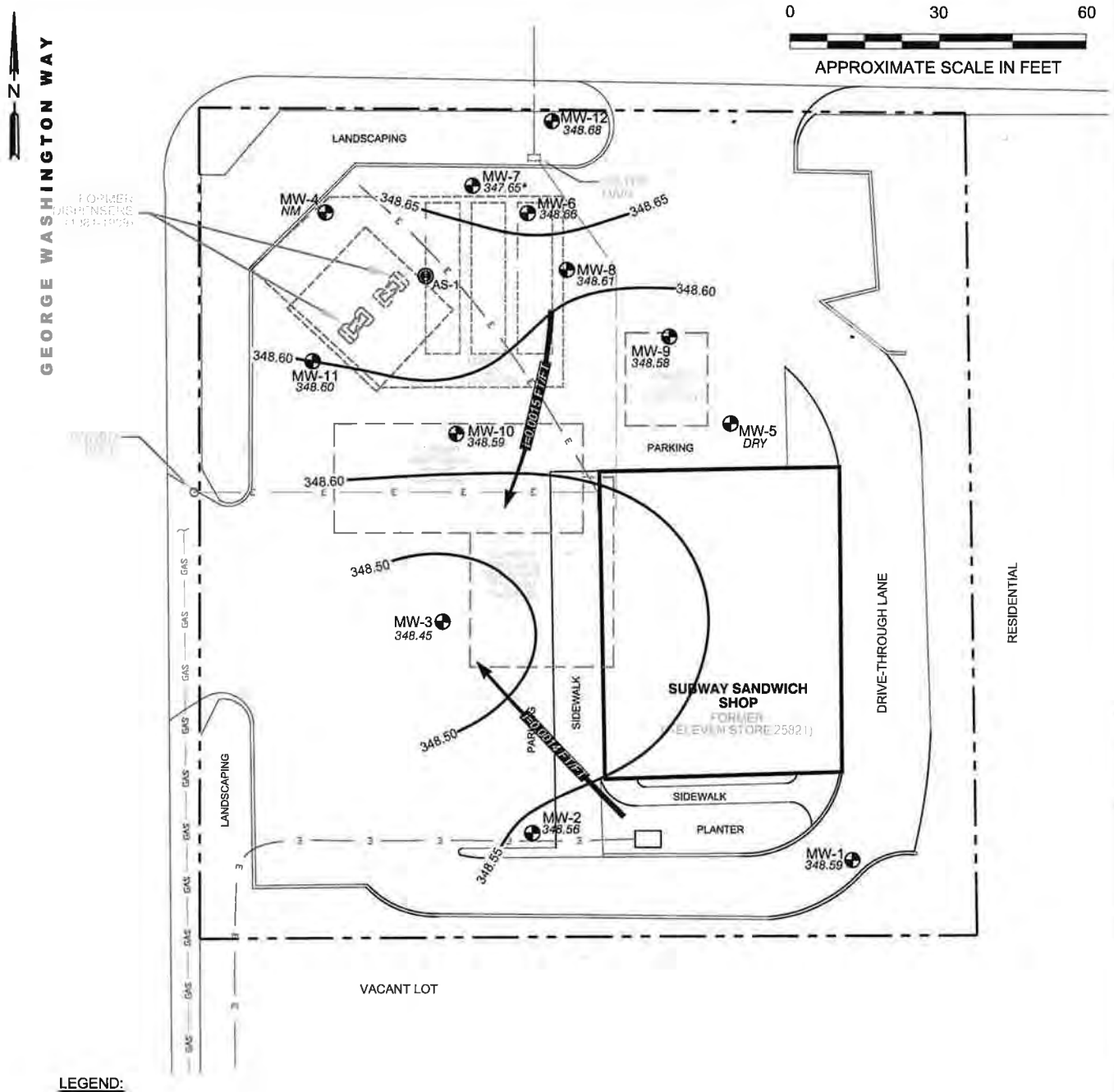
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 24, 2015

FIGURE: B-16 (10/2019)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	DH	PF	FEB 2016

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-7a-7d 25821_2015.dwg | Layout Tab: FIG-7c GW | Drafter: miramirez | Apr 27, 2017 at 13:42



LEGEND:

— — —	SUBJECT PROPERTY LINE BOUNDARY
MW-1 ⊕	MONITORING WELL LOCATION
AS-1 ⊕	AIR SPARGE WELL LOCATION
348 96	RELATIVE GROUNDWATER ELEVATION (FEET)
NM	NOT MEASURED
348.60	INFERRED GROUNDWATER ELEVATION CONTOUR (FEET)
◄—	INFERRED GROUNDWATER FLOW DIRECTION
*	NOT USED TO CALCULATE CONTOURS

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

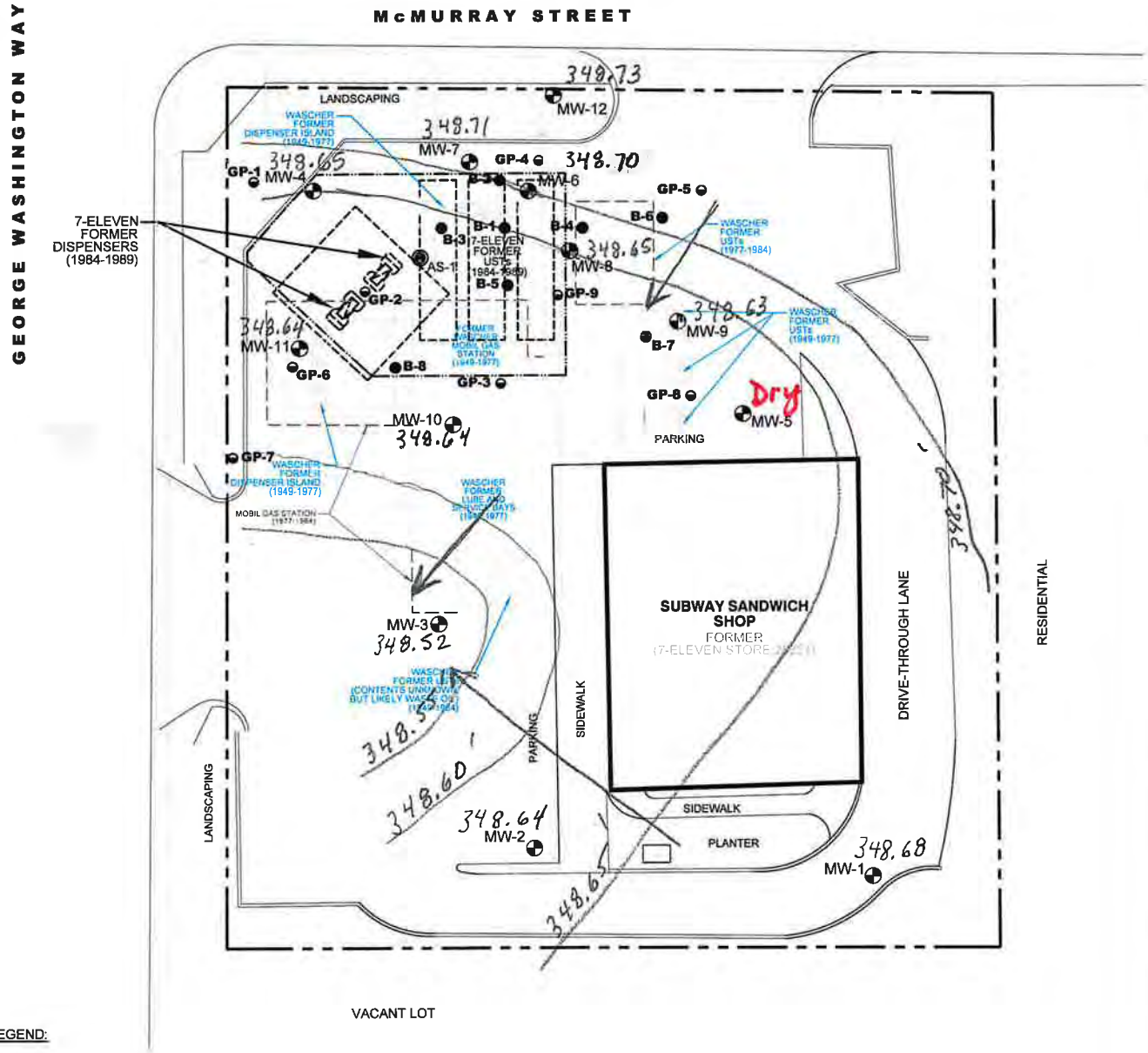
FOR: 7-ELEVEN
FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP FEBRUARY 9, 2016

FIGURE: B-17 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	DH	PF	FEB 2016

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\25821\2017\FIG-7a-7d 25821_2015.dwg | Layout Tab: FIG-7d GW | Drafter: miramirez | Apr 27, 2017 at 13:36



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- B-1 SOIL BORING (IT, DECEMBER 2000)
- GP-1 SOIL BORING SECOR, AUGUST 2004)
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- HISTORIC WASCHER MOBIL SERVICE STATION, DISPENSERS AND USTs (1949-1984)
- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- CURRENT SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

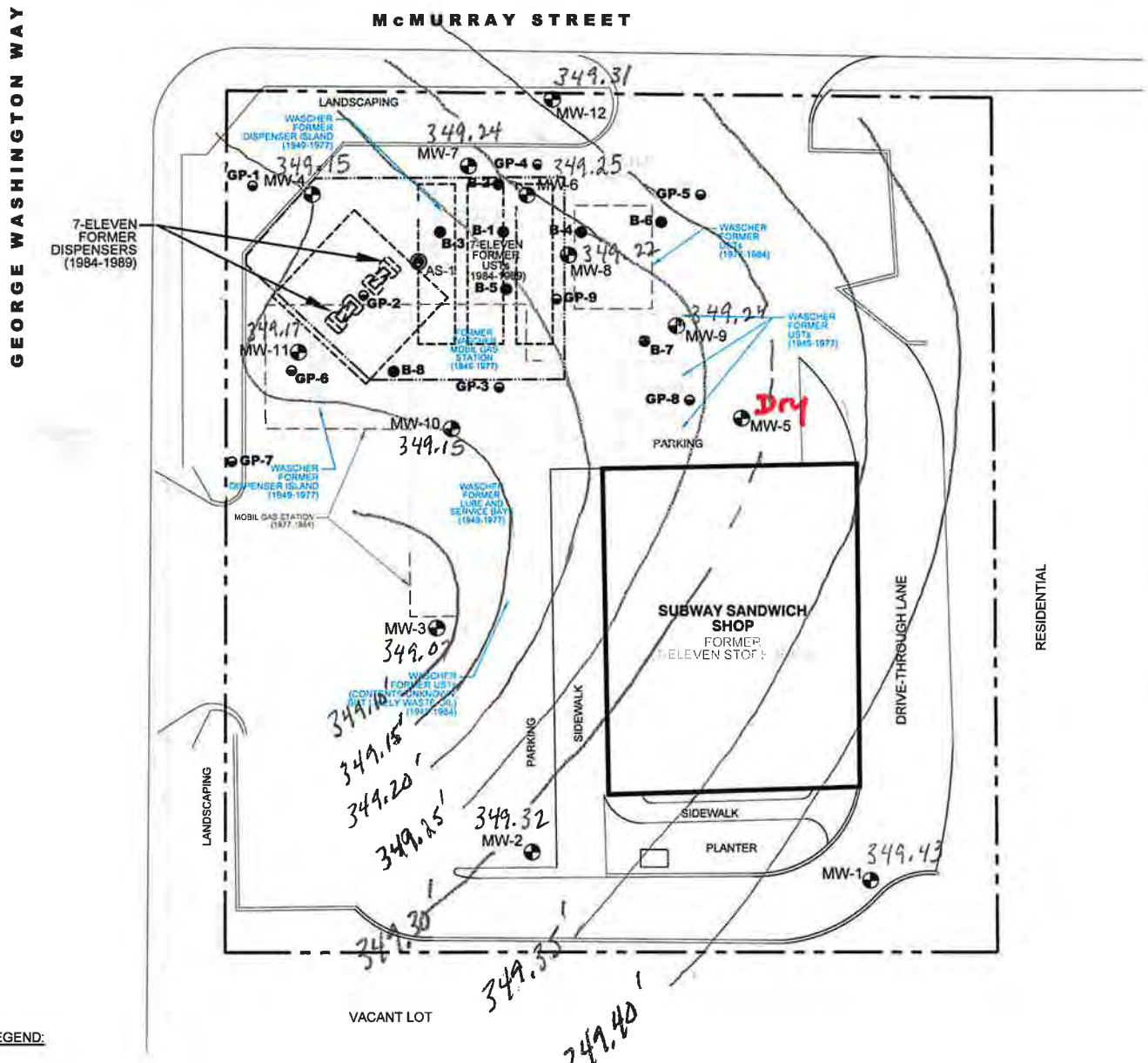
FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

Feb. 22, 2018
GW Elev. Contours

FIGURE: B-18 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- B-1 SOIL BORING (IT, DECEMBER 2000)
- GP-1 SOIL BORING SECOR, AUGUST 2004)
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- HISTORIC WASCHER MOBIL SERVICE STATION, DISPENSERS AND USTs (1949-1984)
- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- CURRENT SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

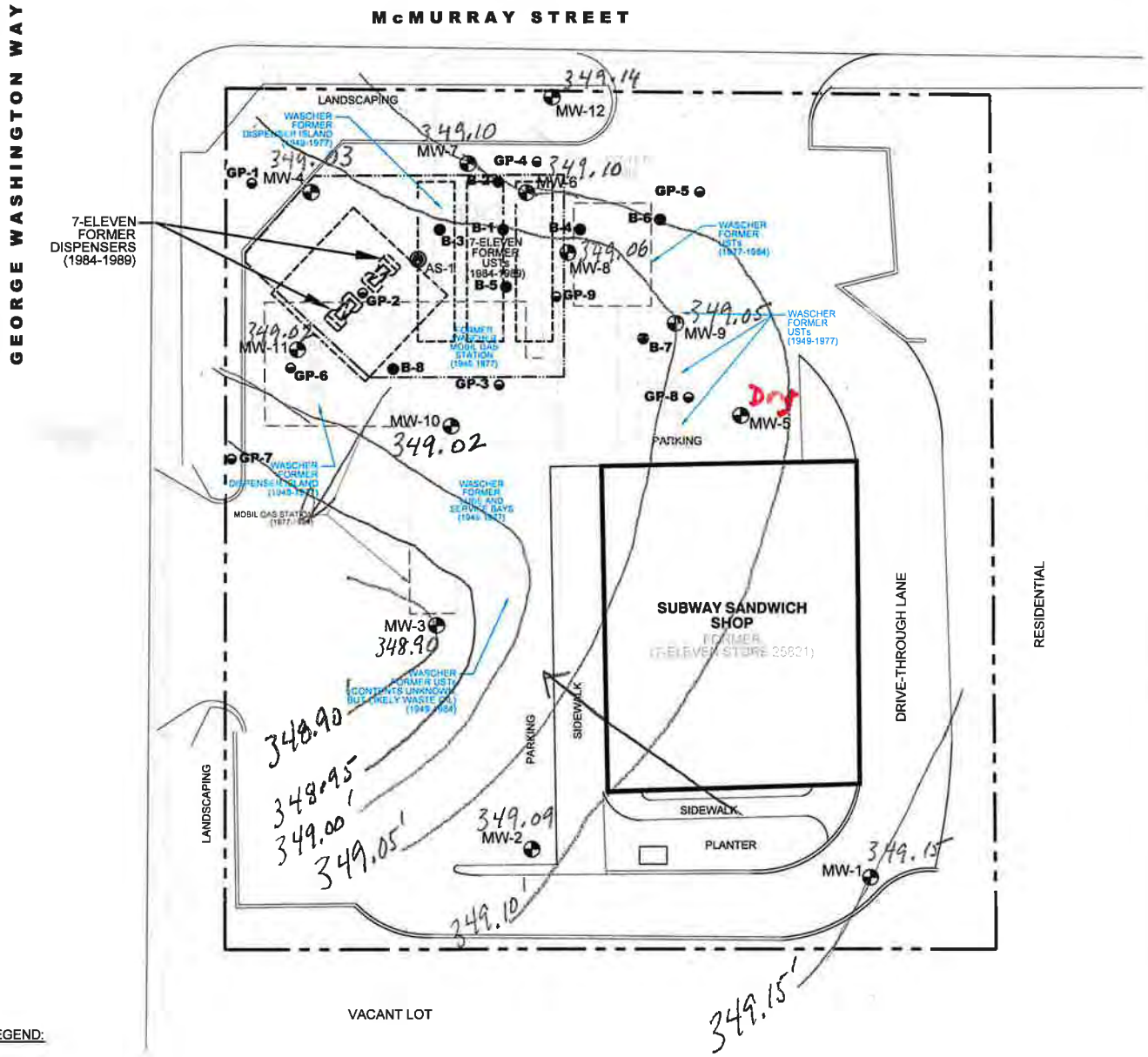
FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

June 6, 2018
GW Elev. Contours

FIGURE: B-19 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018



LEGEND:

- SUBJECT PROPERTY LINE BOUNDARY
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- B-1 SOIL BORING (IT, DECEMBER 2000)
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- HISTORIC 7-ELEVEN DISPENSER AND USTs (1984-1989)
- CURRENT SUBWAY SANDWICH SHOP

N

0 30 60

APPROXIMATE SCALE (FEET)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

FACILITY NO. 25821
1824 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON

Sept. 12, 2018
GW Elev. Contours

FIGURE: B-20 (10/2018)

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750037	MDR	CBS	PF	OCT 2018

Appendix C

Groundwater Laboratory Certificates – 1Q 2018, 2Q 2018, and 3Q 2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-147029-1
TestAmerica Sample Delivery Group: 25821 Richland
Client Project/Site: 1Q18 GWM 25821 - WA

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
3/7/2018 1:54:31 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
leah.klingensmith@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-147029-1	MW-1	Water	02/21/18 14:40	02/24/18 09:15
490-147029-2	MW-2	Water	02/22/18 08:30	02/24/18 09:15
490-147029-3	MW-3	Water	02/22/18 09:20	02/24/18 09:15
490-147029-4	MW-4	Water	02/22/18 10:10	02/24/18 09:15
490-147029-5	MW-6	Water	02/22/18 11:10	02/24/18 09:15
490-147029-6	MW-7	Water	02/22/18 12:00	02/24/18 09:15
490-147029-7	MW-8	Water	02/22/18 13:30	02/24/18 09:15
490-147029-8	MW-9	Water	02/22/18 14:15	02/24/18 09:15
490-147029-9	MW-10	Water	02/22/18 15:10	02/24/18 09:15
490-147029-10	MW-11	Water	02/22/18 16:00	02/24/18 09:15
490-147029-11	MW-12	Water	02/22/18 16:45	02/24/18 09:15

Job ID: 490-147029-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-147029-1

Comments
No additional comments.

Receipt
The samples were received on 2/24/2018 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.0º C, 1.8º C, 2.1º C, 4.4º C, 4.4º C and 4.7º C.

Receipt Exceptions

Method(s) 300.0: The following samples were received outside of holding time or with insufficient holding time remaining: MW-1 (490-147029-1), MW-2 (490-147029-2), MW-3 (490-147029-3), MW-4 (490-147029-4) and MW-6 (490-147029-5).

GC/MS VOA
Method(s) 8260C: Surrogate recovery for the following sample was outside the upper control limit: MW-10 (490-147029-9). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: Due to the high concentration of Nitrate as N, the matrix spike (MS) for analytical batch 490-497636 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method(s) 300.0: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-6 (490-147029-5).

Method(s) 300.0: The following sample was analyzed outside of analytical holding time due to sample received out of hold time: MW-1 (490-147029-1).

Method(s) 300.0: The following sample(s) was received with less than 5 hours remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-2 (490-147029-2), MW-3 (490-147029-3), MW-4 (490-147029-4).

Method(s) 300.0: Reanalysis of the following samples were performed outside of the analytical holding time due to sample results exceeding the calibration curve limits: MW-8 (490-147029-7), MW-9 (490-147029-8), MW-10 (490-147029-9), MW-11 (490-147029-10) and MW-12 (490-147029-11).

Method(s) 300.0: The method blank for analytical batch 490-498339 contained nitrate above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8011: Surrogate recovery for the following samples were outside control limits: MW-7 (490-147029-6) and MW-8 (490-147029-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Job ID: 490-147029-1 (Continued)

Laboratory: TestAmerica Nashville (Continued)

Method(s) NWTPH-Dx: The following sample contained a hydrocarbon pattern that most closely resembles a weathered Transformer oil product used by the laboratory for quantitative purposes: MW-3 (490-147029-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: MW-1

Date Collected: 02/21/18 14:40
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 18:29	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 18:29	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 18:29	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 18:29	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 18:29	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*02/24/18 18:29*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/24/18 18:29*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*02/24/18 18:29*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*02/24/18 18:29*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 16:23	1
2-Methylnaphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 16:23	1
1-Methylnaphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*10 - 120*	*02/26/18 15:41*	*03/06/18 16:23*	*1*
Nitrobenzene-d5	*39*		*27 - 120*	*02/26/18 15:41*	*03/06/18 16:23*	*1*
Terphenyl-d14	*80*		*13 - 120*	*02/26/18 15:41*	*03/06/18 16:23*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*02/26/18 19:50*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00603	ug/L		02/26/18 07:24	02/26/18 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*93*		*50 - 150*	*02/26/18 07:24*	*02/26/18 12:17*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		93.0	26.0	ug/L		02/26/18 13:34	02/26/18 19:52	1
Motor Oil Range Organics (C24-C40)	ND		93.0	46.5	ug/L		02/26/18 13:34	02/26/18 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*62*		*50 - 150*	*02/26/18 13:34*	*02/26/18 19:52*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**4.15**	**H**	0.200	0.100	mg/L			02/26/18 11:07	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-1
Date Collected: 02/21/18 14:40
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-1
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.175	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:05	1

Client Sample ID: MW-2

Date Collected: 02/22/18 08:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 18:55	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 18:55	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 18:55	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 18:55	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 18:55	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*02/24/18 18:55*	*1*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*		*02/24/18 18:55*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*02/24/18 18:55*	*1*
Toluene-d8 (Surr)	*110*		*70 - 130*		*02/24/18 18:55*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 16:44	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 16:44	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*10 - 120*	*02/26/18 15:41*	*03/06/18 16:44*	*1*
Nitrobenzene-d5	*53*		*27 - 120*	*02/26/18 15:41*	*03/06/18 16:44*	*1*
Terphenyl-d14	*70*		*13 - 120*	*02/26/18 15:41*	*03/06/18 16:44*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*02/26/18 19:14*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0210	0.00629	ug/L		02/26/18 07:24	02/26/18 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*93*		*50 - 150*	*02/26/18 07:24*	*02/26/18 12:32*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		101	28.3	ug/L		02/26/18 13:34	02/26/18 20:26	1
Motor Oil Range Organics (C24-C40)	ND		101	50.5	ug/L		02/26/18 13:34	02/26/18 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*64*		*50 - 150*	*02/26/18 13:34*	*02/26/18 20:26*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**3.20**	**H**	0.200	0.100	mg/L			02/26/18 11:22	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-2
Date Collected: 02/22/18 08:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-2
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.191	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:20	1

Client Sample ID: MW-3

Date Collected: 02/22/18 09:20
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 19:22	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 19:22	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 19:22	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 19:22	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 19:22	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*02/24/18 19:22*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*02/24/18 19:22*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*02/24/18 19:22*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*02/24/18 19:22*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/06/18 17:06	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/06/18 17:06	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/06/18 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*10 - 120*	*02/26/18 15:41*	*03/06/18 17:06*	*1*
Nitrobenzene-d5	*54*		*27 - 120*	*02/26/18 15:41*	*03/06/18 17:06*	*1*
Terphenyl-d14	*73*		*13 - 120*	*02/26/18 15:41*	*03/06/18 17:06*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*02/26/18 21:01*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0211	0.00634	ug/L		02/26/18 07:24	02/26/18 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*88*		*50 - 150*	*02/26/18 07:24*	*02/26/18 12:48*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1080**		105	29.5	ug/L		02/26/18 13:34	02/26/18 20:43	1
Motor Oil Range Organics (C24-C40)	**427**		105	52.6	ug/L		02/26/18 13:34	02/26/18 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*02/26/18 13:34*	*02/26/18 20:43*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**9.61**	**H**	0.500	0.250	mg/L			02/26/18 11:37	5

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-3
Date Collected: 02/22/18 09:20
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-3
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.190	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:29	1

Client Sample ID: MW-4

Date Collected: 02/22/18 10:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 19:48	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 19:48	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 19:48	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 19:48	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 19:48	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*02/24/18 19:48*	*1*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*02/24/18 19:48*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*02/24/18 19:48*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*02/24/18 19:48*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.114	0.0568	ug/L		02/26/18 15:41	03/06/18 17:27	1
2-Methylnaphthalene	ND		0.114	0.0568	ug/L		02/26/18 15:41	03/06/18 17:27	1
1-Methylnaphthalene	ND		0.114	0.0568	ug/L		02/26/18 15:41	03/06/18 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*10 - 120*	*02/26/18 15:41*	*03/06/18 17:27*	*1*
Nitrobenzene-d5	*71*		*27 - 120*	*02/26/18 15:41*	*03/06/18 17:27*	*1*
Terphenyl-d14	*81*		*13 - 120*	*02/26/18 15:41*	*03/06/18 17:27*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*02/26/18 21:36*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0208	0.00623	ug/L		02/26/18 07:24	02/26/18 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*91*		*50 - 150*	*02/26/18 07:24*	*02/26/18 13:03*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		103	28.9	ug/L		02/26/18 13:34	02/26/18 21:00	1
Motor Oil Range Organics (C24-C40)	ND		103	51.5	ug/L		02/26/18 13:34	02/26/18 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*66*		*50 - 150*	*02/26/18 13:34*	*02/26/18 21:00*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**5.41**	**H B**	0.500	0.250	mg/L			02/28/18 14:04	5

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-4
Date Collected: 02/22/18 10:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-4
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.179	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:38	1

Client Sample ID: MW-6

Date Collected: 02/22/18 11:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 20:15	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 20:15	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 20:15	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 20:15	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 20:15	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*02/24/18 20:15*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*02/24/18 20:15*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*02/24/18 20:15*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*02/24/18 20:15*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 17:48	1
2-Methylnaphthalene	**0.0885**	**J**	0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 17:48	1
1-Methylnaphthalene	**0.133**		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*10 - 120*	*02/26/18 15:41*	*03/06/18 17:48*	*1*
Nitrobenzene-d5	*53*		*27 - 120*	*02/26/18 15:41*	*03/06/18 17:48*	*1*
Terphenyl-d14	*76*		*13 - 120*	*02/26/18 15:41*	*03/06/18 17:48*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*02/26/18 22:12*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0206	0.00619	ug/L		02/26/18 07:24	02/26/18 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*83*		*50 - 150*	*02/26/18 07:24*	*02/26/18 13:19*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**61.0**	**J**	104	29.2	ug/L		02/26/18 13:34	02/26/18 21:17	1
Motor Oil Range Organics (C24-C40)	ND		104	52.1	ug/L		02/26/18 13:34	02/26/18 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*57*		*50 - 150*	*02/26/18 13:34*	*02/26/18 21:17*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**2.88**	**H**	0.100	0.0500	mg/L			02/24/18 14:15	1

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-6
Date Collected: 02/22/18 11:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-5
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.273	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:41	1

Client Sample ID: MW-7

Date Collected: 02/22/18 12:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 20:42	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 20:42	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 20:42	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 20:42	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 20:42	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/24/18 20:42*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*02/24/18 20:42*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*02/24/18 20:42*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*02/24/18 20:42*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0962	0.0481	ug/L		02/26/18 15:41	03/06/18 18:09	1
2-Methylnaphthalene	ND		0.0962	0.0481	ug/L		02/26/18 15:41	03/06/18 18:09	1
1-Methylnaphthalene	ND		0.0962	0.0481	ug/L		02/26/18 15:41	03/06/18 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*10 - 120*	*02/26/18 15:41*	*03/06/18 18:09*	*1*
Nitrobenzene-d5	*42*		*27 - 120*	*02/26/18 15:41*	*03/06/18 18:09*	*1*
Terphenyl-d14	*68*		*13 - 120*	*02/26/18 15:41*	*03/06/18 18:09*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*02/26/18 22:47*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0199	0.00598	ug/L		02/26/18 07:24	02/26/18 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*44*	*X*	*50 - 150*	*02/26/18 07:24*	*02/26/18 13:35*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**49.5**	**J**	105	29.5	ug/L		02/26/18 13:34	02/26/18 21:34	1
Motor Oil Range Organics (C24-C40)	ND		105	52.6	ug/L		02/26/18 13:34	02/26/18 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*56*		*50 - 150*	*02/26/18 13:34*	*02/26/18 21:34*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.35**		0.100	0.0500	mg/L			02/24/18 13:46	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-7
Date Collected: 02/22/18 12:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-6
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.946	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:44	1

Client Sample ID: MW-8

Date Collected: 02/22/18 13:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 21:08	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 21:08	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 21:08	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 21:08	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 21:08	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*02/24/18 21:08*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*02/24/18 21:08*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*02/24/18 21:08*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*02/24/18 21:08*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:30	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:30	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*10 - 120*	*02/26/18 15:41*	*03/06/18 18:30*	*1*
Nitrobenzene-d5	*46*		*27 - 120*	*02/26/18 15:41*	*03/06/18 18:30*	*1*
Terphenyl-d14	*73*		*13 - 120*	*02/26/18 15:41*	*03/06/18 18:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*02/26/18 23:22*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0205	0.00616	ug/L		02/26/18 07:24	02/26/18 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*13*	*X*	*50 - 150*	*02/26/18 07:24*	*02/26/18 14:06*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**39.9**	**J**	102	28.6	ug/L		02/26/18 13:34	02/26/18 21:51	1
Motor Oil Range Organics (C24-C40)	ND		102	51.0	ug/L		02/26/18 13:34	02/26/18 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*55*		*50 - 150*	*02/26/18 13:34*	*02/26/18 21:51*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**4.38**	**H**	0.200	0.100	mg/L			02/26/18 12:36	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-8
Date Collected: 02/22/18 13:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-7
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.76		2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:47	1

Client Sample ID: MW-9

Date Collected: 02/22/18 14:15
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 21:35	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 21:35	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 21:35	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 21:35	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 21:35	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*02/24/18 21:35*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*02/24/18 21:35*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*02/24/18 21:35*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*02/24/18 21:35*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:51	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:51	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*10 - 120*	*02/26/18 15:41*	*03/06/18 18:51*	*1*
Nitrobenzene-d5	*58*		*27 - 120*	*02/26/18 15:41*	*03/06/18 18:51*	*1*
Terphenyl-d14	*69*		*13 - 120*	*02/26/18 15:41*	*03/06/18 18:51*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*02/26/18 23:57*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0210	0.00629	ug/L		02/26/18 07:24	02/26/18 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*88*		*50 - 150*	*02/26/18 07:24*	*02/26/18 14:37*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		102	28.6	ug/L		02/26/18 13:34	02/26/18 22:42	1
Motor Oil Range Organics (C24-C40)	ND		102	51.0	ug/L		02/26/18 13:34	02/26/18 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*02/26/18 13:34*	*02/26/18 22:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**3.99**	**H**	0.200	0.100	mg/L			02/26/18 12:51	2

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-9
Date Collected: 02/22/18 14:15
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-8
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.179	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:50	1

Client Sample ID: MW-10

Date Collected: 02/22/18 15:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 22:01	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 22:01	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 22:01	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 22:01	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 22:01	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*02/24/18 22:01*	*1*
4-Bromofluorobenzene (Surr)	*134*	*X*	*70 - 130*		*02/24/18 22:01*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*02/24/18 22:01*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*02/24/18 22:01*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0943	0.0472	ug/L		02/26/18 15:41	03/06/18 19:12	1
2-Methylnaphthalene	ND		0.0943	0.0472	ug/L		02/26/18 15:41	03/06/18 19:12	1
1-Methylnaphthalene	ND		0.0943	0.0472	ug/L		02/26/18 15:41	03/06/18 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*10 - 120*	*02/26/18 15:41*	*03/06/18 19:12*	*1*
Nitrobenzene-d5	*50*		*27 - 120*	*02/26/18 15:41*	*03/06/18 19:12*	*1*
Terphenyl-d14	*76*		*13 - 120*	*02/26/18 15:41*	*03/06/18 19:12*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/27/18 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*02/27/18 00:32*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0210	0.00629	ug/L		02/26/18 07:24	02/26/18 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*97*		*50 - 150*	*02/26/18 07:24*	*02/26/18 15:09*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		104	29.2	ug/L		02/26/18 13:34	02/26/18 22:59	1
Motor Oil Range Organics (C24-C40)	ND		104	52.1	ug/L		02/26/18 13:34	02/26/18 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*02/26/18 13:34*	*02/26/18 22:59*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**3.79**	**H**	0.200	0.100	mg/L			02/26/18 13:06	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-10
Date Collected: 02/22/18 15:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-9
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.31		2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:53	1

Client Sample ID: MW-11

Date Collected: 02/22/18 16:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 22:28	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 22:28	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 22:28	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 22:28	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 22:28	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*02/24/18 22:28*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*02/24/18 22:28*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*02/24/18 22:28*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*02/24/18 22:28*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 19:33	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 19:33	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		02/26/18 15:41	03/06/18 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*10 - 120*	*02/26/18 15:41*	*03/06/18 19:33*	*1*
Nitrobenzene-d5	*42*		*27 - 120*	*02/26/18 15:41*	*03/06/18 19:33*	*1*
Terphenyl-d14	*70*		*13 - 120*	*02/26/18 15:41*	*03/06/18 19:33*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/27/18 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*02/27/18 01:07*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0230	0.00689	ug/L		02/26/18 07:24	02/26/18 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*81*		*50 - 150*	*02/26/18 07:24*	*02/26/18 15:40*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		102	28.6	ug/L		02/26/18 13:34	02/26/18 23:15	1
Motor Oil Range Organics (C24-C40)	ND		102	51.0	ug/L		02/26/18 13:34	02/26/18 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*02/26/18 13:34*	*02/26/18 23:15*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**5.46**	**H**	0.200	0.100	mg/L			02/26/18 13:21	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-11
Date Collected: 02/22/18 16:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-10
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.153	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:56	1

Client Sample ID: MW-12

Date Collected: 02/22/18 16:45
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 22:55	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 22:55	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 22:55	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 22:55	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 22:55	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*02/24/18 22:55*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/24/18 22:55*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*02/24/18 22:55*	*1*
Toluene-d8 (Surr)	*110*		*70 - 130*		*02/24/18 22:55*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 19:54	1
2-Methylnaphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 19:54	1
1-Methylnaphthalene	ND		0.111	0.0556	ug/L		02/26/18 15:41	03/06/18 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*10 - 120*	*02/26/18 15:41*	*03/06/18 19:54*	*1*
Nitrobenzene-d5	*39*		*27 - 120*	*02/26/18 15:41*	*03/06/18 19:54*	*1*
Terphenyl-d14	*83*		*13 - 120*	*02/26/18 15:41*	*03/06/18 19:54*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/27/18 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*02/27/18 01:42*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0204	0.00612	ug/L		02/26/18 07:24	02/26/18 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*99*		*50 - 150*	*02/26/18 07:24*	*02/26/18 16:27*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		105	29.5	ug/L		02/26/18 13:34	02/26/18 23:49	1
Motor Oil Range Organics (C24-C40)	ND		105	52.6	ug/L		02/26/18 13:34	02/26/18 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*56*		*50 - 150*	*02/26/18 13:34*	*02/26/18 23:49*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**4.33**	**H**	0.200	0.100	mg/L			02/26/18 13:36	2

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-12
Date Collected: 02/22/18 16:45
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-11
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.130	J	2.00	0.100	ug/L		02/27/18 10:45	03/01/18 15:59	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-497617/6
Matrix: Water
Analysis Batch: 497617

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			02/24/18 14:55	1
Toluene	ND		1.00	0.170	ug/L			02/24/18 14:55	1
Ethylbenzene	ND		1.00	0.190	ug/L			02/24/18 14:55	1
Xylenes, Total	ND		3.00	0.580	ug/L			02/24/18 14:55	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			02/24/18 14:55	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			02/24/18 14:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*02/24/18 14:55*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/24/18 14:55*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*02/24/18 14:55*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*02/24/18 14:55*	*1*

Lab Sample ID: LCS 490-497617/3
Matrix: Water
Analysis Batch: 497617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			20.0	19.84		ug/L		99	80 - 121		
Toluene			20.0	21.94		ug/L		110	80 - 126		
Ethylbenzene			20.0	20.48		ug/L		102	80 - 130		
Xylenes, Total			40.0	40.70		ug/L		102	80 - 132		
Methyl tert-butyl ether			20.0	20.10		ug/L		101	72 - 133		
1,2-Dichloroethane			20.0	19.78		ug/L		99	77 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 490-497617/4
Matrix: Water
Analysis Batch: 497617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.0	19.99		ug/L		100	80 - 121	1	12
Toluene			20.0	22.67		ug/L		113	80 - 126	3	13
Ethylbenzene			20.0	20.92		ug/L		105	80 - 130	2	12
Xylenes, Total			40.0	42.48		ug/L		106	80 - 132	4	11
Methyl tert-butyl ether			20.0	21.24		ug/L		106	72 - 133	6	16
1,2-Dichloroethane			20.0	19.72		ug/L		99	77 - 121	0	13

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-497617/4
Matrix: Water
Analysis Batch: 497617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*70 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 490-497922/1-A
Matrix: Water
Analysis Batch: 499205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 497922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/05/18 04:09	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/05/18 04:09	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		02/26/18 15:41	03/05/18 04:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*10 - 120*	*02/26/18 15:41*	*03/05/18 04:09*	*1*
Nitrobenzene-d5	*61*		*27 - 120*	*02/26/18 15:41*	*03/05/18 04:09*	*1*
Terphenyl-d14	*75*		*13 - 120*	*02/26/18 15:41*	*03/05/18 04:09*	*1*

Lab Sample ID: LCS 490-497922/2-A
Matrix: Water
Analysis Batch: 499205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			40.0	35.41		ug/L		89	37 - 120		
2-Methylnaphthalene			40.0	33.29		ug/L		83	31 - 120		
1-Methylnaphthalene			40.0	37.46		ug/L		94	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*62*		*10 - 120*
Nitrobenzene-d5	*253*	*X*	*27 - 120*
Terphenyl-d14	*81*		*13 - 120*

Lab Sample ID: LCSD 490-497922/3-A
Matrix: Water
Analysis Batch: 499205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 497922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			40.0	34.91		ug/L		87	37 - 120	1	37
2-Methylnaphthalene			40.0	32.08		ug/L		80	31 - 120	4	35
1-Methylnaphthalene			40.0	29.11		ug/L		73	36 - 120	25	36

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*81*		*10 - 120*
Nitrobenzene-d5	*62*		*27 - 120*
Terphenyl-d14	*86*		*13 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-497714/11
Matrix: Water
Analysis Batch: 497714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			02/26/18 12:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*96*		*50 - 150*		*02/26/18 12:40*	*1*

Lab Sample ID: LCS 490-497714/8
Matrix: Water
Analysis Batch: 497714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	1171		ug/L		117	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*92*		*50 - 150*

Lab Sample ID: LCSD 490-497714/9
Matrix: Water
Analysis Batch: 497714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	1162		ug/L		116	39 - 143	1	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*97*		*50 - 150*

Lab Sample ID: 490-147029-1 DU
Matrix: Water
Analysis Batch: 497714

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	ND			ND		ug/L				NC	18

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*97*		*50 - 150*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 490-497719/4-A
Matrix: Water
Analysis Batch: 497717

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 497719

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		02/26/18 07:24	02/26/18 11:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*108*		*50 - 150*	*02/26/18 07:24*	*02/26/18 11:15*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 490-497719/5-A
Matrix: Water
Analysis Batch: 497717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	0.286	0.3590		ug/L		126	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*111*		*50 - 150*

Lab Sample ID: LCSD 490-497719/6-A
Matrix: Water
Analysis Batch: 497717

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 497719

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide	0.286	0.3508		ug/L		123	70 - 130	2	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*100*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-497901/1-A
Matrix: Water
Analysis Batch: 497833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 497901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		100	28.0	ug/L		02/26/18 13:34	02/26/18 19:34	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		02/26/18 13:34	02/26/18 19:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*02/26/18 13:34*	*02/26/18 19:34*	*1*

Lab Sample ID: LCS 490-497901/2-A
Matrix: Water
Analysis Batch: 497833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	1000	896.9		ug/L		90	51 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*73*		*50 - 150*

Lab Sample ID: 490-147029-1 DU
Matrix: Water
Analysis Batch: 497833

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 497901

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
#2 Diesel (C10-C24)	ND		ND		ug/L		NC	41
Motor Oil Range Organics (C24-C40)	ND		ND		ug/L		NC	41

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 490-147029-1 DU
Matrix: Water
Analysis Batch: 497833

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 497901

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*65*		*50 - 150*

Lab Sample ID: 490-147029-10 DU
Matrix: Water
Analysis Batch: 497833

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 497901

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		ug/L				NC	41
Motor Oil Range Organics (C24-C40)	ND			ND		ug/L				NC	41

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*66*		*50 - 150*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-497636/3
Matrix: Water
Analysis Batch: 497636

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.100	0.0500	mg/L			02/24/18 13:16	1

Lab Sample ID: LCS 490-497636/4
Matrix: Water
Analysis Batch: 497636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.00	0.9313		mg/L		93	90 - 110		

Lab Sample ID: LCSD 490-497636/6
Matrix: Water
Analysis Batch: 497636

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			1.00	0.9440		mg/L		94	90 - 110	1	20

Lab Sample ID: 490-147029-11 MS
Matrix: Water
Analysis Batch: 497636

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	4.61	E	1.00	5.756	E 4	mg/L		115	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 490-497729/3
Matrix: Water
Analysis Batch: 497729

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.100	0.0500	mg/L			02/26/18 08:39	1

Lab Sample ID: LCS 490-497729/4
Matrix: Water
Analysis Batch: 497729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.00	0.9033		mg/L		90	90 - 110

Lab Sample ID: LCSD 490-497729/5
Matrix: Water
Analysis Batch: 497729

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.00	0.9049		mg/L		90	90 - 110	0	20

Lab Sample ID: MB 490-498339/3
Matrix: Water
Analysis Batch: 498339

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.05038	J	0.100	0.0500	mg/L			02/28/18 10:25	1

Lab Sample ID: LCS 490-498339/4
Matrix: Water
Analysis Batch: 498339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.00	0.9064		mg/L		91	90 - 110

Lab Sample ID: LCSD 490-498339/5
Matrix: Water
Analysis Batch: 498339

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.00	0.9109		mg/L		91	90 - 110	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 490-498044/1-A
Matrix: Water
Analysis Batch: 498844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		02/27/18 10:45	03/01/18 14:53	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 490-498044/2-A
Matrix: Water
Analysis Batch: 498844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	86.37		ug/L		86	85 - 115

Lab Sample ID: 490-147029-1 MS
Matrix: Water
Analysis Batch: 498844

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 498044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.175	J	100	94.45		ug/L		94	70 - 130

Lab Sample ID: 490-147029-1 MSD
Matrix: Water
Analysis Batch: 498844

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 498044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.175	J	100	93.01		ug/L		93	70 - 130	2	20

Lab Sample ID: 490-147029-2 MS
Matrix: Water
Analysis Batch: 498844

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 498044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.191	J	100	83.59		ug/L		83	70 - 130

Lab Sample ID: 490-147029-2 MSD
Matrix: Water
Analysis Batch: 498844

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 498044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.191	J	100	80.93		ug/L		81	70 - 130	3	20

GC/MS VOA

Analysis Batch: 497617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	8260C	
490-147029-2	MW-2	Total/NA	Water	8260C	
490-147029-3	MW-3	Total/NA	Water	8260C	
490-147029-4	MW-4	Total/NA	Water	8260C	
490-147029-5	MW-6	Total/NA	Water	8260C	
490-147029-6	MW-7	Total/NA	Water	8260C	
490-147029-7	MW-8	Total/NA	Water	8260C	
490-147029-8	MW-9	Total/NA	Water	8260C	
490-147029-9	MW-10	Total/NA	Water	8260C	
490-147029-10	MW-11	Total/NA	Water	8260C	
490-147029-11	MW-12	Total/NA	Water	8260C	
MB 490-497617/6	Method Blank	Total/NA	Water	8260C	
LCS 490-497617/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-497617/4	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 497922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	3510C	
490-147029-2	MW-2	Total/NA	Water	3510C	
490-147029-3	MW-3	Total/NA	Water	3510C	
490-147029-4	MW-4	Total/NA	Water	3510C	
490-147029-5	MW-6	Total/NA	Water	3510C	
490-147029-6	MW-7	Total/NA	Water	3510C	
490-147029-7	MW-8	Total/NA	Water	3510C	
490-147029-8	MW-9	Total/NA	Water	3510C	
490-147029-9	MW-10	Total/NA	Water	3510C	
490-147029-10	MW-11	Total/NA	Water	3510C	
490-147029-11	MW-12	Total/NA	Water	3510C	
MB 490-497922/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-497922/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-497922/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 499205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-497922/1-A	Method Blank	Total/NA	Water	8270D SIM	497922
LCS 490-497922/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	497922
LCSD 490-497922/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	497922

Analysis Batch: 499473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	8270D SIM	497922
490-147029-2	MW-2	Total/NA	Water	8270D SIM	497922
490-147029-3	MW-3	Total/NA	Water	8270D SIM	497922
490-147029-4	MW-4	Total/NA	Water	8270D SIM	497922
490-147029-5	MW-6	Total/NA	Water	8270D SIM	497922
490-147029-6	MW-7	Total/NA	Water	8270D SIM	497922
490-147029-7	MW-8	Total/NA	Water	8270D SIM	497922
490-147029-8	MW-9	Total/NA	Water	8270D SIM	497922

GC/MS Semi VOA (Continued)

Analysis Batch: 499473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-9	MW-10	Total/NA	Water	8270D SIM	497922
490-147029-10	MW-11	Total/NA	Water	8270D SIM	497922
490-147029-11	MW-12	Total/NA	Water	8270D SIM	497922

GC VOA

Analysis Batch: 497714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	NWTPH-Gx	
490-147029-2	MW-2	Total/NA	Water	NWTPH-Gx	
490-147029-3	MW-3	Total/NA	Water	NWTPH-Gx	
490-147029-4	MW-4	Total/NA	Water	NWTPH-Gx	
490-147029-5	MW-6	Total/NA	Water	NWTPH-Gx	
490-147029-6	MW-7	Total/NA	Water	NWTPH-Gx	
490-147029-7	MW-8	Total/NA	Water	NWTPH-Gx	
490-147029-8	MW-9	Total/NA	Water	NWTPH-Gx	
490-147029-9	MW-10	Total/NA	Water	NWTPH-Gx	
490-147029-10	MW-11	Total/NA	Water	NWTPH-Gx	
490-147029-11	MW-12	Total/NA	Water	NWTPH-Gx	
MB 490-497714/11	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 490-497714/8	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-497714/9	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
490-147029-1 DU	MW-1	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Analysis Batch: 497717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	8011	497719
490-147029-2	MW-2	Total/NA	Water	8011	497719
490-147029-3	MW-3	Total/NA	Water	8011	497719
490-147029-4	MW-4	Total/NA	Water	8011	497719
490-147029-5	MW-6	Total/NA	Water	8011	497719
490-147029-6	MW-7	Total/NA	Water	8011	497719
490-147029-7	MW-8	Total/NA	Water	8011	497719
490-147029-8	MW-9	Total/NA	Water	8011	497719
490-147029-9	MW-10	Total/NA	Water	8011	497719
490-147029-10	MW-11	Total/NA	Water	8011	497719
490-147029-11	MW-12	Total/NA	Water	8011	497719
MB 490-497719/4-A	Method Blank	Total/NA	Water	8011	497719
LCS 490-497719/5-A	Lab Control Sample	Total/NA	Water	8011	497719
LCSD 490-497719/6-A	Lab Control Sample Dup	Total/NA	Water	8011	497719

Prep Batch: 497719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	8011	
490-147029-2	MW-2	Total/NA	Water	8011	
490-147029-3	MW-3	Total/NA	Water	8011	
490-147029-4	MW-4	Total/NA	Water	8011	
490-147029-5	MW-6	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 497719 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-6	MW-7	Total/NA	Water	8011	
490-147029-7	MW-8	Total/NA	Water	8011	
490-147029-8	MW-9	Total/NA	Water	8011	
490-147029-9	MW-10	Total/NA	Water	8011	
490-147029-10	MW-11	Total/NA	Water	8011	
490-147029-11	MW-12	Total/NA	Water	8011	
MB 490-497719/4-A	Method Blank	Total/NA	Water	8011	
LCS 490-497719/5-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-497719/6-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 497833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	NWTPH-Dx	497901
490-147029-2	MW-2	Total/NA	Water	NWTPH-Dx	497901
490-147029-3	MW-3	Total/NA	Water	NWTPH-Dx	497901
490-147029-4	MW-4	Total/NA	Water	NWTPH-Dx	497901
490-147029-5	MW-6	Total/NA	Water	NWTPH-Dx	497901
490-147029-6	MW-7	Total/NA	Water	NWTPH-Dx	497901
490-147029-7	MW-8	Total/NA	Water	NWTPH-Dx	497901
490-147029-8	MW-9	Total/NA	Water	NWTPH-Dx	497901
490-147029-9	MW-10	Total/NA	Water	NWTPH-Dx	497901
490-147029-10	MW-11	Total/NA	Water	NWTPH-Dx	497901
490-147029-11	MW-12	Total/NA	Water	NWTPH-Dx	497901
MB 490-497901/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	497901
LCS 490-497901/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	497901
490-147029-1 DU	MW-1	Total/NA	Water	NWTPH-Dx	497901
490-147029-10 DU	MW-11	Total/NA	Water	NWTPH-Dx	497901

Prep Batch: 497901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	3510C	
490-147029-2	MW-2	Total/NA	Water	3510C	
490-147029-3	MW-3	Total/NA	Water	3510C	
490-147029-4	MW-4	Total/NA	Water	3510C	
490-147029-5	MW-6	Total/NA	Water	3510C	
490-147029-6	MW-7	Total/NA	Water	3510C	
490-147029-7	MW-8	Total/NA	Water	3510C	
490-147029-8	MW-9	Total/NA	Water	3510C	
490-147029-9	MW-10	Total/NA	Water	3510C	
490-147029-10	MW-11	Total/NA	Water	3510C	
490-147029-11	MW-12	Total/NA	Water	3510C	
MB 490-497901/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-497901/2-A	Lab Control Sample	Total/NA	Water	3510C	
490-147029-1 DU	MW-1	Total/NA	Water	3510C	
490-147029-10 DU	MW-11	Total/NA	Water	3510C	

HPLC/IC

Analysis Batch: 497636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-5	MW-6	Total/NA	Water	300.0	
490-147029-6	MW-7	Total/NA	Water	300.0	
MB 490-497636/3	Method Blank	Total/NA	Water	300.0	
LCS 490-497636/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-497636/6	Lab Control Sample Dup	Total/NA	Water	300.0	
490-147029-11 MS	MW-12	Total/NA	Water	300.0	

Analysis Batch: 497729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	300.0	
490-147029-2	MW-2	Total/NA	Water	300.0	
490-147029-3	MW-3	Total/NA	Water	300.0	
490-147029-7	MW-8	Total/NA	Water	300.0	
490-147029-8	MW-9	Total/NA	Water	300.0	
490-147029-9	MW-10	Total/NA	Water	300.0	
490-147029-10	MW-11	Total/NA	Water	300.0	
490-147029-11	MW-12	Total/NA	Water	300.0	
MB 490-497729/3	Method Blank	Total/NA	Water	300.0	
LCS 490-497729/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-497729/5	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 498339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-4	MW-4	Total/NA	Water	300.0	
MB 490-498339/3	Method Blank	Total/NA	Water	300.0	
LCS 490-498339/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-498339/5	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 498044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	200.8	
490-147029-2	MW-2	Total/NA	Water	200.8	
490-147029-3	MW-3	Total/NA	Water	200.8	
490-147029-4	MW-4	Total/NA	Water	200.8	
490-147029-5	MW-6	Total/NA	Water	200.8	
490-147029-6	MW-7	Total/NA	Water	200.8	
490-147029-7	MW-8	Total/NA	Water	200.8	
490-147029-8	MW-9	Total/NA	Water	200.8	
490-147029-9	MW-10	Total/NA	Water	200.8	
490-147029-10	MW-11	Total/NA	Water	200.8	
490-147029-11	MW-12	Total/NA	Water	200.8	
MB 490-498044/1-A	Method Blank	Total/NA	Water	200.8	
LCS 490-498044/2-A	Lab Control Sample	Total/NA	Water	200.8	
490-147029-1 MS	MW-1	Total/NA	Water	200.8	
490-147029-1 MSD	MW-1	Total/NA	Water	200.8	
490-147029-2 MS	MW-2	Total/NA	Water	200.8	
490-147029-2 MSD	MW-2	Total/NA	Water	200.8	

Metals (Continued)

Analysis Batch: 498844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-147029-1	MW-1	Total/NA	Water	200.8	498044
490-147029-2	MW-2	Total/NA	Water	200.8	498044
490-147029-3	MW-3	Total/NA	Water	200.8	498044
490-147029-4	MW-4	Total/NA	Water	200.8	498044
490-147029-5	MW-6	Total/NA	Water	200.8	498044
490-147029-6	MW-7	Total/NA	Water	200.8	498044
490-147029-7	MW-8	Total/NA	Water	200.8	498044
490-147029-8	MW-9	Total/NA	Water	200.8	498044
490-147029-9	MW-10	Total/NA	Water	200.8	498044
490-147029-10	MW-11	Total/NA	Water	200.8	498044
490-147029-11	MW-12	Total/NA	Water	200.8	498044
MB 490-498044/1-A	Method Blank	Total/NA	Water	200.8	498044
LCS 490-498044/2-A	Lab Control Sample	Total/NA	Water	200.8	498044
490-147029-1 MS	MW-1	Total/NA	Water	200.8	498044
490-147029-1 MSD	MW-1	Total/NA	Water	200.8	498044
490-147029-2 MS	MW-2	Total/NA	Water	200.8	498044
490-147029-2 MSD	MW-2	Total/NA	Water	200.8	498044

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-1

Date Collected: 02/21/18 14:40
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 18:29	S1S	TAL NSH
Total/NA	Prep	3510C			225 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 16:23	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 19:50	S1S	TAL NSH
Total/NA	Prep	8011			34.8 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 12:17	MH	TAL NSH
Total/NA	Prep	3510C			1075 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 19:52	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 11:07	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:05	BLG	TAL NSH

Client Sample ID: MW-2

Date Collected: 02/22/18 08:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 18:55	S1S	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 16:44	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 19:14	S1S	TAL NSH
Total/NA	Prep	8011			33.4 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 12:32	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 20:26	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 11:22	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:20	BLG	TAL NSH

Client Sample ID: MW-3

Date Collected: 02/22/18 09:20
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 19:22	S1S	TAL NSH
Total/NA	Prep	3510C			250 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 17:06	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 21:01	S1S	TAL NSH
Total/NA	Prep	8011			33.1 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 12:48	MH	TAL NSH
Total/NA	Prep	3510C			950 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 20:43	AK1	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-3

Date Collected: 02/22/18 09:20
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			497729	02/26/18 11:37	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:29	BLG	TAL NSH

Client Sample ID: MW-4

Date Collected: 02/22/18 10:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 19:48	S1S	TAL NSH
Total/NA	Prep	3510C			220 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 17:27	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 21:36	S1S	TAL NSH
Total/NA	Prep	8011			33.7 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 13:03	MH	TAL NSH
Total/NA	Prep	3510C			970 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 21:00	AK1	TAL NSH
Total/NA	Analysis	300.0		5			498339	02/28/18 14:04	JHS	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:38	BLG	TAL NSH

Client Sample ID: MW-6

Date Collected: 02/22/18 11:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 20:15	S1S	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 17:48	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 22:12	S1S	TAL NSH
Total/NA	Prep	8011			33.9 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 13:19	MH	TAL NSH
Total/NA	Prep	3510C			960 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 21:17	AK1	TAL NSH
Total/NA	Analysis	300.0		1			497636	02/24/18 14:15	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:41	BLG	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-7

Date Collected: 02/22/18 12:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 20:42	S1S	TAL NSH
Total/NA	Prep	3510C			260 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 18:09	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 22:47	S1S	TAL NSH
Total/NA	Prep	8011			35.1 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 13:35	MH	TAL NSH
Total/NA	Prep	3510C			950 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 21:34	AK1	TAL NSH
Total/NA	Analysis	300.0		1			497636	02/24/18 13:46	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:44	BLG	TAL NSH

Client Sample ID: MW-8

Date Collected: 02/22/18 13:30
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 21:08	S1S	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 18:30	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 23:22	S1S	TAL NSH
Total/NA	Prep	8011			34.1 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 14:06	MH	TAL NSH
Total/NA	Prep	3510C			980 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 21:51	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 12:36	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:47	BLG	TAL NSH

Client Sample ID: MW-9

Date Collected: 02/22/18 14:15
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 21:35	S1S	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 18:51	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/26/18 23:57	S1S	TAL NSH
Total/NA	Prep	8011			33.4 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 14:37	MH	TAL NSH
Total/NA	Prep	3510C			980 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 22:42	AK1	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-9

Date Collected: 02/22/18 14:15
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			497729	02/26/18 12:51	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:50	BLG	TAL NSH

Client Sample ID: MW-10

Date Collected: 02/22/18 15:10
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 22:01	S1S	TAL NSH
Total/NA	Prep	3510C			265 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 19:12	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/27/18 00:32	S1S	TAL NSH
Total/NA	Prep	8011			33.4 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 15:09	MH	TAL NSH
Total/NA	Prep	3510C			960 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 22:59	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 13:06	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:53	BLG	TAL NSH

Client Sample ID: MW-11

Date Collected: 02/22/18 16:00
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 22:28	S1S	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 19:33	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/27/18 01:07	S1S	TAL NSH
Total/NA	Prep	8011			30.5 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 15:40	MH	TAL NSH
Total/NA	Prep	3510C			980 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 23:15	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 13:21	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:56	BLG	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Client Sample ID: MW-12

Date Collected: 02/22/18 16:45
Date Received: 02/24/18 09:15

Lab Sample ID: 490-147029-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	497617	02/24/18 22:55	S1S	TAL NSH
Total/NA	Prep	3510C			225 mL	1 mL	497922	02/26/18 15:41	KB	TAL NSH
Total/NA	Analysis	8270D SIM		1			499473	03/06/18 19:54	KME	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	497714	02/27/18 01:42	S1S	TAL NSH
Total/NA	Prep	8011			34.3 mL	2 mL	497719	02/26/18 07:24	MH	TAL NSH
Total/NA	Analysis	8011		1			497717	02/26/18 16:27	MH	TAL NSH
Total/NA	Prep	3510C			950 mL	1 mL	497901	02/26/18 13:34	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			497833	02/26/18 23:49	AK1	TAL NSH
Total/NA	Analysis	300.0		2			497729	02/26/18 13:36	T1C	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	498044	02/27/18 10:45	RDF	TAL NSH
Total/NA	Analysis	200.8		1			498844	03/01/18 15:59	BLG	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL NSH
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH
200.8	Metals (ICP/MS)	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 1Q18 GWM 25821 - WA

TestAmerica Job ID: 490-147029-1
SDG: 25821 Richland

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C789	07-19-18

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-147029 Chain of Custody

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1050 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 7200 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 4.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES NO...NA cs 2-24-18

If yes, how many and where:

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) cs

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (intial) ON

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) ON

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) ON

I certify that I attached a label with the unique LIMS number to each container (intial) ON

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
147029
#1
F

COOLER RECEIPT FORM

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1650 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 6745 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 1c8 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: _____

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# _____

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End of Form

Revised 8/23/17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
147029

COOLER RECEIPT FORM

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1050 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 6723 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.0 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

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End of Form

Revised 8/23/17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
147029
#1
B

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1650 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 2110 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 4.7 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...(NA)

4. Were custody seals on outside of cooler? YES...(NO)..NA

If yes, how many and where:

5. Were the seals intact, signed, and dated correctly? YES...NO...(NA)

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ES

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) (Plastic bag) Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? (YES)...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...(NO)..NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (intial) DM

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) DM

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) DM

I certify that I attached a label with the unique LIMS number to each container (intial) DM

21. Were there Non-Conformance issues at login? (YES)..NO Was a NCM generated? (YES)...NO...#

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
147029
#1
C

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1050 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 7287 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 2.1 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...(NA)

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)..NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? (YES)..NO...NA

b. Was there any observable headspace present in any VOA vial? YES..(NO)..NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...(NO)..NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) Ow

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) Ow

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)..NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) Ow

I certify that I attached a label with the unique LIMS number to each container (intial) Ow

21. Were there Non-Conformance issues at login? (YES)...NO Was a NCM generated? (YES)...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

3/7/2018

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
147029
#1
E

Cooler Received/Opened On 2/24/2018 @0915

Time Samples Removed From Cooler 1050 Time Samples Placed In Storage 1108 (2 Hour Window)

1. Tracking # 7243 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 4.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO NA

If yes, how many and where:

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (intial) DM

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) DM

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) DM

I certify that I attached a label with the unique LIMS number to each container (intial) DM

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#

BIS = Broken in shipment

TestAmerica Nashville
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brian Schoenneman	Lab PM: Leah Klingensmith	Carrier Tracking No(s):
Client Contact: Paul Fairbairn	Phone: 916-213-3205	E-Mail: Leah.Klingensmith@testamericainc.com	
Company: Stantec Consulting Corp.			
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:		
City: Bellevue	TAT Requested (days): Standard		
State, Zip: WA, 98004-1465			
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested		
Email: paul.fairbairn@stantec.com	WO #:		
Project Name: 1Q18 GWM 25821	Project #: 185750037		
Site: 25821 Richland	SSOW#:		

COC No:
Page: Page 1 of 1
Job #: Store No. 25821

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	BTEX, EDC, MTBE (8260)	EDB (8011)	Total Lead (200.8)	NWTPH-Dx	Naphthalene, 1-Methyl Naphthalene, 2-Methyl Naphthalene (8270)	Nitrates	Total Number of Containers	Special Instructions/Note:
			Preservation Code:												
1 MW-1	2/21/18	1440	G	W			X	X	X	X	X	X	X		
2 MW-2	2/22/18	0830	G	W			X	X	X	X	X	X	X		
3 MW-3	2/22/18	0920	G	W			X	X	X	X	X	X	X		
4 MW-4	2/22/18	1010	G	W			X	X	X	X	X	X	X		
MW-5			G	W			X	X	X	X	X	X	X		Dry Well no Sample
5 6 MW-6	2/22/18	1110	G	W			X	X	X	X	X	X	X		
West MW-7	2/22/18	1200	G	W			X	X	X	X	X	X	X		Loc: 490 147029
7 8 MW-8	2/22/18	1330	G	W			X	X	X	X	X	X	X		
8 9 MW-9	2/22/18	1415	G	W			X	X	X	X	X	X	X		
9 10 MW-10	2/22/18	1510	G	W			X	X	X	X	X	X	X		
10 MW-11	2/22/18	1500	G	W			X	X	X	X	X	X	X		
11 MW-12	2/22/18	1645	G	W			X	X	X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Brian Schoenneman	Date/Time: 2/23/18 1000	Company Stantec	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 2-24-18 0915	Company TAN AS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.6, 11.7, 4.4, 2.1, 4.4, 1.8

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-153490-1
Client Project/Site: 2Q18 GWM 25821(WA)

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
6/15/2018 6:49:22 PM

Jimmy Huckaba, Project Manager I
(615)301-5746
jimmy.huckaba@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-153490-1	MW-1	Water	06/06/18 15:20	06/08/18 09:20
490-153490-2	MW-2	Water	06/06/18 14:25	06/08/18 09:20
490-153490-3	MW-3	Water	06/06/18 13:30	06/08/18 09:20
490-153490-4	MW-4	Water	06/05/18 14:00	06/08/18 09:20
490-153490-5	MW-6	Water	06/06/18 08:45	06/08/18 09:20
490-153490-6	MW-7	Water	06/06/18 07:55	06/08/18 09:20
490-153490-7	MW-8	Water	06/06/18 10:25	06/08/18 09:20
490-153490-8	MW-9	Water	06/06/18 11:10	06/08/18 09:20
490-153490-9	MW-10	Water	06/06/18 12:00	06/08/18 09:20
490-153490-10	MW-11	Water	06/05/18 14:55	06/08/18 09:20
490-153490-11	MW-12	Water	06/06/18 09:35	06/08/18 09:20

Job ID: 490-153490-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-153490-1

Comments
No additional comments.

Receipt
The samples were received on 6/8/2018 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.4º C, 2.6º C, 3.2º C, 3.6º C, 4.4º C and 5.9º C.

GC/MS VOA
Method(s) 8260C: The following volatile QC samples were analyzed with significant headspace in the sample container(s): (490-153452-B-1 MS) and (490-153452-B-1 MSD). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D SIM: Terphenyl-d14 surrogate low. Not needed for requested compounds. MW-6 (490-153490-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8011: The %RPD between the primary and confirmation column exceeded 40% for 1,3-Dichlorobenzene for the following samples: MW-2 (490-153490-2), MW-3 (490-153490-3), MW-4 (490-153490-4), MW-11 (490-153490-10) and MW-12 (490-153490-11). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8011: The continuing calibration verification (CCV) associated with batch 490-521105 recovered above the upper control limit for Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8011: Surrogate recovery for the following sample was outside control limits: MW-6 (490-153490-5). Evidence of matrix interference is present; re-extraction re-analysis was performed.

Method(s) NWTPH-Dx: The following sample contained a hydrocarbon pattern that most closely resembles a weathered Gasoline product used by the laboratory for quantitative purposes: MW-6 (490-153490-5).

Method(s) NWTPH-Dx: Silica gel treatment was not performed during sample preparation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 200.8: The method blank for preparation batch 490-520721 and analytical batch 490-521175 contained Lead above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: MW-1
Date Collected: 06/06/18 15:20
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 18:47	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 18:47	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 18:47	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 18:47	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 18:47	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/09/18 18:47*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*06/09/18 18:47*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/09/18 18:47*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*06/09/18 18:47*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 14:44	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 14:44	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*38*		*10 - 120*	*06/11/18 14:58*	*06/12/18 14:44*	*1*
Nitrobenzene-d5	*37*		*27 - 120*	*06/11/18 14:58*	*06/12/18 14:44*	*1*
Terphenyl-d14	*55*		*13 - 120*	*06/11/18 14:58*	*06/12/18 14:44*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*50 - 150*		*06/12/18 18:53*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0203	0.00609	ug/L		06/11/18 10:11	06/11/18 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*116*		*50 - 150*	*06/11/18 10:11*	*06/11/18 21:47*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		101	28.3	ug/L		06/12/18 07:42	06/12/18 17:44	1
Motor Oil Range Organics (C24-C40)	ND		101	50.5	ug/L		06/12/18 07:42	06/12/18 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*06/12/18 07:42*	*06/12/18 17:44*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 17:43	1

Client Sample ID: MW-2

Date Collected: 06/06/18 14:25
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 19:14	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 19:14	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 19:14	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 19:14	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 19:14	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/09/18 19:14*	*1*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*06/09/18 19:14*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*06/09/18 19:14*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*06/09/18 19:14*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:05	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:05	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*38*		*10 - 120*	*06/11/18 14:58*	*06/12/18 15:05*	*1*
Nitrobenzene-d5	*37*		*27 - 120*	*06/11/18 14:58*	*06/12/18 15:05*	*1*
Terphenyl-d14	*55*		*13 - 120*	*06/11/18 14:58*	*06/12/18 15:05*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*116*		*50 - 150*		*06/12/18 20:08*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00602	ug/L		06/11/18 10:11	06/11/18 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*70*	*p*	*50 - 150*	*06/11/18 10:11*	*06/11/18 22:03*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		100	28.0	ug/L		06/12/18 07:42	06/12/18 18:20	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		06/12/18 07:42	06/12/18 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*71*		*50 - 150*	*06/12/18 07:42*	*06/12/18 18:20*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 17:58	1

Client Sample ID: MW-3

Date Collected: 06/06/18 13:30
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 19:40	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 19:40	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 19:40	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 19:40	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 19:40	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*06/09/18 19:40*	*1*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*06/09/18 19:40*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*06/09/18 19:40*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*06/09/18 19:40*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:26	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:26	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*43*		*10 - 120*	*06/11/18 14:58*	*06/12/18 15:26*	*1*
Nitrobenzene-d5	*39*		*27 - 120*	*06/11/18 14:58*	*06/12/18 15:26*	*1*
Terphenyl-d14	*58*		*13 - 120*	*06/11/18 14:58*	*06/12/18 15:26*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*50 - 150*		*06/12/18 20:45*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00602	ug/L		06/11/18 10:11	06/11/18 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*67*	*p*	*50 - 150*	*06/11/18 10:11*	*06/11/18 22:18*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**33.2**	**J**	93.5	26.2	ug/L		06/12/18 07:42	06/12/18 18:38	1
Motor Oil Range Organics (C24-C40)	ND		93.5	46.7	ug/L		06/12/18 07:42	06/12/18 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/12/18 07:42*	*06/12/18 18:38*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:01	1

Client Sample ID: MW-4

Date Collected: 06/05/18 14:00
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 20:06	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 20:06	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 20:06	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 20:06	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 20:06	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/09/18 20:06*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*06/09/18 20:06*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/09/18 20:06*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*06/09/18 20:06*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:46	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:46	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*38*		*10 - 120*	*06/11/18 14:58*	*06/12/18 15:46*	*1*
Nitrobenzene-d5	*36*		*27 - 120*	*06/11/18 14:58*	*06/12/18 15:46*	*1*
Terphenyl-d14	*60*		*13 - 120*	*06/11/18 14:58*	*06/12/18 15:46*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*50 - 150*		*06/12/18 21:22*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		06/11/18 10:11	06/11/18 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*79*	*p*	*50 - 150*	*06/11/18 10:11*	*06/11/18 22:34*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**50.1**	**J**	101	28.3	ug/L		06/12/18 07:42	06/12/18 18:57	1
Motor Oil Range Organics (C24-C40)	**71.9**	**J**	101	50.5	ug/L		06/12/18 07:42	06/12/18 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*06/12/18 07:42*	*06/12/18 18:57*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:04	1

Client Sample ID: MW-6

Date Collected: 06/06/18 08:45
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 20:33	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 20:33	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 20:33	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 20:33	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 20:33	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/09/18 20:33*	*1*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*06/09/18 20:33*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*06/09/18 20:33*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/09/18 20:33*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.720**		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:07	1
2-Methylnaphthalene	**0.435**		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:07	1
1-Methylnaphthalene	**0.303**		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*22*		*10 - 120*	*06/11/18 14:58*	*06/12/18 16:07*	*1*
Nitrobenzene-d5	*36*		*27 - 120*	*06/11/18 14:58*	*06/12/18 16:07*	*1*
Terphenyl-d14	*7*	*X*	*13 - 120*	*06/11/18 14:58*	*06/12/18 16:07*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*50 - 150*		*06/12/18 21:58*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202	0.00607	ug/L		06/12/18 14:06	06/13/18 06:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*30*	*X*	*50 - 150*	*06/12/18 14:06*	*06/13/18 06:35*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**488**		100	28.0	ug/L		06/12/18 07:42	06/12/18 19:15	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		06/12/18 07:42	06/12/18 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*06/12/18 07:42*	*06/12/18 19:15*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**11.3**	**B**	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:08	1

Client Sample ID: MW-7

Date Collected: 06/06/18 07:55
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 20:59	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 20:59	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 20:59	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 20:59	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 20:59	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*06/09/18 20:59*	*1*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*06/09/18 20:59*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/09/18 20:59*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/09/18 20:59*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:28	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:28	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*31*		*10 - 120*	*06/11/18 14:58*	*06/12/18 16:28*	*1*
Nitrobenzene-d5	*39*		*27 - 120*	*06/11/18 14:58*	*06/12/18 16:28*	*1*
Terphenyl-d14	*46*		*13 - 120*	*06/11/18 14:58*	*06/12/18 16:28*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*115*		*50 - 150*		*06/12/18 22:34*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		06/11/18 10:11	06/12/18 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*95*		*50 - 150*	*06/11/18 10:11*	*06/12/18 01:26*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		101	28.3	ug/L		06/12/18 07:42	06/12/18 19:33	1
Motor Oil Range Organics (C24-C40)	ND		101	50.5	ug/L		06/12/18 07:42	06/12/18 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*06/12/18 07:42*	*06/12/18 19:33*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.225**	**J B**	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:11	1

Client Sample ID: MW-8

Date Collected: 06/06/18 10:25
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 21:25	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 21:25	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 21:25	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 21:25	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 21:25	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/09/18 21:25*	*1*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*06/09/18 21:25*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/09/18 21:25*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/09/18 21:25*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:49	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:49	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*52*		*10 - 120*	*06/11/18 14:58*	*06/12/18 16:49*	*1*
Nitrobenzene-d5	*54*		*27 - 120*	*06/11/18 14:58*	*06/12/18 16:49*	*1*
Terphenyl-d14	*63*		*13 - 120*	*06/11/18 14:58*	*06/12/18 16:49*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*		*06/12/18 23:10*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202	0.00607	ug/L		06/11/18 10:11	06/12/18 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*90*		*50 - 150*	*06/11/18 10:11*	*06/12/18 01:41*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**43.5**	**J**	102	28.6	ug/L		06/12/18 07:42	06/12/18 19:51	1
Motor Oil Range Organics (C24-C40)	ND		102	51.0	ug/L		06/12/18 07:42	06/12/18 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*64*		*50 - 150*	*06/12/18 07:42*	*06/12/18 19:51*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**16.5**	**B**	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:14	1

Client Sample ID: MW-9

Date Collected: 06/06/18 11:10
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 21:52	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 21:52	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 21:52	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 21:52	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 21:52	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*06/09/18 21:52*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*06/09/18 21:52*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/09/18 21:52*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*06/09/18 21:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:10	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:10	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*30*		*10 - 120*	*06/11/18 14:58*	*06/12/18 17:10*	*1*
Nitrobenzene-d5	*28*		*27 - 120*	*06/11/18 14:58*	*06/12/18 17:10*	*1*
Terphenyl-d14	*42*		*13 - 120*	*06/11/18 14:58*	*06/12/18 17:10*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*		*06/12/18 23:46*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00602	ug/L		06/11/18 10:11	06/12/18 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*125*		*50 - 150*	*06/11/18 10:11*	*06/12/18 02:27*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		101	28.3	ug/L		06/12/18 07:42	06/12/18 20:09	1
Motor Oil Range Organics (C24-C40)	ND		101	50.5	ug/L		06/12/18 07:42	06/12/18 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*06/12/18 07:42*	*06/12/18 20:09*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:17	1

Client Sample ID: MW-10

Date Collected: 06/06/18 12:00
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 22:18	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 22:18	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 22:18	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 22:18	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 22:18	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/09/18 22:18*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*06/09/18 22:18*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/09/18 22:18*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/09/18 22:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:31	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:31	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*52*		*10 - 120*	*06/11/18 14:58*	*06/12/18 17:31*	*1*
Nitrobenzene-d5	*48*		*27 - 120*	*06/11/18 14:58*	*06/12/18 17:31*	*1*
Terphenyl-d14	*62*		*13 - 120*	*06/11/18 14:58*	*06/12/18 17:31*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/13/18 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*		*06/13/18 00:22*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0203	0.00610	ug/L		06/11/18 10:11	06/12/18 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*121*		*50 - 150*	*06/11/18 10:11*	*06/12/18 02:43*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**31.1**	**J**	100	28.0	ug/L		06/12/18 07:42	06/12/18 20:26	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		06/12/18 07:42	06/12/18 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*06/12/18 07:42*	*06/12/18 20:26*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**11.5**	**B**	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:20	1

Client Sample ID: MW-11

Date Collected: 06/05/18 14:55
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 22:44	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 22:44	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 22:44	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 22:44	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 22:44	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/09/18 22:44*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*06/09/18 22:44*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/09/18 22:44*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/09/18 22:44*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:51	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:51	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*39*		*10 - 120*	*06/11/18 14:58*	*06/12/18 17:51*	*1*
Nitrobenzene-d5	*37*		*27 - 120*	*06/11/18 14:58*	*06/12/18 17:51*	*1*
Terphenyl-d14	*53*		*13 - 120*	*06/11/18 14:58*	*06/12/18 17:51*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/13/18 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*		*06/13/18 00:57*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202	0.00605	ug/L		06/11/18 10:11	06/12/18 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*78*	*p*	*50 - 150*	*06/11/18 10:11*	*06/12/18 02:58*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		101	28.3	ug/L		06/12/18 07:42	06/12/18 20:44	1
Motor Oil Range Organics (C24-C40)	ND		101	50.5	ug/L		06/12/18 07:42	06/12/18 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*06/12/18 07:42*	*06/12/18 20:44*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.310**	**J B**	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:23	1

Client Sample ID: MW-12
Date Collected: 06/06/18 09:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 23:11	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 23:11	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 23:11	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 23:11	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 23:11	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/09/18 23:11*	*1*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*06/09/18 23:11*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*06/09/18 23:11*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*06/09/18 23:11*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 18:12	1
2-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 18:12	1
1-Methylnaphthalene	ND		0.109	0.0543	ug/L		06/11/18 14:58	06/12/18 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*35*		*10 - 120*	*06/11/18 14:58*	*06/12/18 18:12*	*1*
Nitrobenzene-d5	*34*		*27 - 120*	*06/11/18 14:58*	*06/12/18 18:12*	*1*
Terphenyl-d14	*50*		*13 - 120*	*06/11/18 14:58*	*06/12/18 18:12*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/13/18 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*116*		*50 - 150*		*06/13/18 01:33*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0199	0.00597	ug/L		06/11/18 10:11	06/12/18 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*82*	*p*	*50 - 150*	*06/11/18 10:11*	*06/12/18 03:14*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		102	28.6	ug/L		06/12/18 07:42	06/12/18 21:02	1
Motor Oil Range Organics (C24-C40)	ND		102	51.0	ug/L		06/12/18 07:42	06/12/18 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*06/12/18 07:42*	*06/12/18 21:02*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		06/09/18 15:31	06/11/18 18:32	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-520715/5
Matrix: Water
Analysis Batch: 520715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			06/09/18 16:35	1
Toluene	ND		1.00	0.170	ug/L			06/09/18 16:35	1
Ethylbenzene	ND		1.00	0.190	ug/L			06/09/18 16:35	1
Xylenes, Total	ND		3.00	0.580	ug/L			06/09/18 16:35	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			06/09/18 16:35	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			06/09/18 16:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/09/18 16:35*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*06/09/18 16:35*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/09/18 16:35*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/09/18 16:35*	*1*

Lab Sample ID: LCS 490-520715/3
Matrix: Water
Analysis Batch: 520715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	21.51		ug/L		108	80 - 121
Toluene	20.0	22.53		ug/L		113	80 - 126
Ethylbenzene	20.0	20.72		ug/L		104	80 - 130
Xylenes, Total	40.0	40.43		ug/L		101	80 - 132
Methyl tert-butyl ether	20.0	22.70		ug/L		113	72 - 133
1,2-Dichloroethane	20.0	20.81		ug/L		104	77 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 490-521004/1-A
Matrix: Water
Analysis Batch: 521224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0500	ug/L		06/11/18 14:58	06/12/18 13:41	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		06/11/18 14:58	06/12/18 13:41	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		06/11/18 14:58	06/12/18 13:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*51*		*10 - 120*	*06/11/18 14:58*	*06/12/18 13:41*	*1*
Nitrobenzene-d5	*51*		*27 - 120*	*06/11/18 14:58*	*06/12/18 13:41*	*1*
Terphenyl-d14	*65*		*13 - 120*	*06/11/18 14:58*	*06/12/18 13:41*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 490-521004/2-A
Matrix: Water
Analysis Batch: 521551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	40.0	23.51		ug/L		59	37 - 120
2-Methylnaphthalene	40.0	23.68		ug/L		59	31 - 120
1-Methylnaphthalene	40.0	24.16		ug/L		60	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*66*		*10 - 120*
Nitrobenzene-d5	*61*		*27 - 120*
Terphenyl-d14	*81*		*13 - 120*

Lab Sample ID: LCSD 490-521004/3-A
Matrix: Water
Analysis Batch: 521551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 521004

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	40.0	23.45		ug/L		59	37 - 120	0	37
2-Methylnaphthalene	40.0	24.23		ug/L		61	31 - 120	2	35
1-Methylnaphthalene	40.0	24.76		ug/L		62	36 - 120	2	36

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*63*		*10 - 120*
Nitrobenzene-d5	*55*		*27 - 120*
Terphenyl-d14	*72*		*13 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-521061/10
Matrix: Water
Analysis Batch: 521061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			06/12/18 13:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*114*		*50 - 150*		*06/12/18 13:12*	*1*

Lab Sample ID: LCS 490-521061/4
Matrix: Water
Analysis Batch: 521061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	1000	1136		ug/L		114	39 - 143

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*50 - 150*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 490-521061/5
Matrix: Water
Analysis Batch: 521061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	1113		ug/L		111	39 - 143	2	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*101*		*50 - 150*

Lab Sample ID: 490-153490-1 DU
Matrix: Water
Analysis Batch: 521061

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	ND			ND		ug/L				NC	18

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*116*		*50 - 150*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 490-520878/4-A
Matrix: Water
Analysis Batch: 520822

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		06/11/18 10:11	06/11/18 17:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*123*		*50 - 150*	*06/11/18 10:11*	*06/11/18 17:22*	*1*

Lab Sample ID: LCS 490-520878/5-A
Matrix: Water
Analysis Batch: 520822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520878

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide			0.286	0.3234		ug/L		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*100*		*50 - 150*

Lab Sample ID: LCSD 490-520878/6-A
Matrix: Water
Analysis Batch: 520822

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 520878

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			0.286	0.3131		ug/L		110	70 - 130	3	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*94*		*50 - 150*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 490-521254/3-A
Matrix: Water
Analysis Batch: 521105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		06/12/18 14:06	06/13/18 02:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*83*		*50 - 150*	*06/12/18 14:06*	*06/13/18 02:59*	*1*

Lab Sample ID: LCS 490-521254/4-A
Matrix: Water
Analysis Batch: 521105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521254

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide			0.286	0.3207		ug/L		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*102*		*50 - 150*

Lab Sample ID: LCSD 490-521254/5-A
Matrix: Water
Analysis Batch: 521105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 521254

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			0.286	0.3442		ug/L		120	70 - 130	7	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*115*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-521072/1-A
Matrix: Water
Analysis Batch: 521250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521072

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		100	28.0	ug/L		06/12/18 07:42	06/12/18 17:08	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		06/12/18 07:42	06/12/18 17:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*06/12/18 07:42*	*06/12/18 17:08*	*1*

Lab Sample ID: LCS 490-521072/2-A
Matrix: Water
Analysis Batch: 521250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521072

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			1000	974.5		ug/L		97	51 - 132		

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 490-521072/2-A
Matrix: Water
Analysis Batch: 521250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521072

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*100*		*50 - 150*

Lab Sample ID: 490-153490-1 DU
Matrix: Water
Analysis Batch: 521250

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 521072

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		ug/L				NC	41
Motor Oil Range Organics (C24-C40)	ND			ND		ug/L				NC	41

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*77*		*50 - 150*

Lab Sample ID: 490-153490-11 DU
Matrix: Water
Analysis Batch: 521250

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 521072

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		ug/L				NC	41
Motor Oil Range Organics (C24-C40)	ND			ND		ug/L				NC	41

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*85*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 490-520721/1-A
Matrix: Water
Analysis Batch: 521175

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.1090	J	2.00	0.100	ug/L		06/09/18 15:31	06/11/18 17:18	1

Lab Sample ID: LCS 490-520721/2-A
Matrix: Water
Analysis Batch: 521175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520721

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			100	87.67		ug/L		88	85 - 115		

Lab Sample ID: 490-153490-1 MS
Matrix: Water
Analysis Batch: 521175

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 520721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		100	86.55		ug/L		87	70 - 130		

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 490-153490-1 MSD
Matrix: Water
Analysis Batch: 521175

Client Sample ID: MW-1
Prep Type: Total/NA
Prep Batch: 520721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		100	90.44		ug/L		90	70 - 130	4	20

GC/MS VOA

Analysis Batch: 520715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	8260C	
490-153490-2	MW-2	Total/NA	Water	8260C	
490-153490-3	MW-3	Total/NA	Water	8260C	
490-153490-4	MW-4	Total/NA	Water	8260C	
490-153490-5	MW-6	Total/NA	Water	8260C	
490-153490-6	MW-7	Total/NA	Water	8260C	
490-153490-7	MW-8	Total/NA	Water	8260C	
490-153490-8	MW-9	Total/NA	Water	8260C	
490-153490-9	MW-10	Total/NA	Water	8260C	
490-153490-10	MW-11	Total/NA	Water	8260C	
490-153490-11	MW-12	Total/NA	Water	8260C	
MB 490-520715/5	Method Blank	Total/NA	Water	8260C	
LCS 490-520715/3	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 521004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	3510C	
490-153490-2	MW-2	Total/NA	Water	3510C	
490-153490-3	MW-3	Total/NA	Water	3510C	
490-153490-4	MW-4	Total/NA	Water	3510C	
490-153490-5	MW-6	Total/NA	Water	3510C	
490-153490-6	MW-7	Total/NA	Water	3510C	
490-153490-7	MW-8	Total/NA	Water	3510C	
490-153490-8	MW-9	Total/NA	Water	3510C	
490-153490-9	MW-10	Total/NA	Water	3510C	
490-153490-10	MW-11	Total/NA	Water	3510C	
490-153490-11	MW-12	Total/NA	Water	3510C	
MB 490-521004/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-521004/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-521004/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 521224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	8270D SIM	521004
490-153490-2	MW-2	Total/NA	Water	8270D SIM	521004
490-153490-3	MW-3	Total/NA	Water	8270D SIM	521004
490-153490-4	MW-4	Total/NA	Water	8270D SIM	521004
490-153490-5	MW-6	Total/NA	Water	8270D SIM	521004
490-153490-6	MW-7	Total/NA	Water	8270D SIM	521004
490-153490-7	MW-8	Total/NA	Water	8270D SIM	521004
490-153490-8	MW-9	Total/NA	Water	8270D SIM	521004
490-153490-9	MW-10	Total/NA	Water	8270D SIM	521004
490-153490-10	MW-11	Total/NA	Water	8270D SIM	521004
490-153490-11	MW-12	Total/NA	Water	8270D SIM	521004
MB 490-521004/1-A	Method Blank	Total/NA	Water	8270D SIM	521004

GC/MS Semi VOA (Continued)

Analysis Batch: 521551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-521004/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	521004
LCSD 490-521004/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	521004

GC VOA

Analysis Batch: 521061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	NWTPH-Gx	
490-153490-2	MW-2	Total/NA	Water	NWTPH-Gx	
490-153490-3	MW-3	Total/NA	Water	NWTPH-Gx	
490-153490-4	MW-4	Total/NA	Water	NWTPH-Gx	
490-153490-5	MW-6	Total/NA	Water	NWTPH-Gx	
490-153490-6	MW-7	Total/NA	Water	NWTPH-Gx	
490-153490-7	MW-8	Total/NA	Water	NWTPH-Gx	
490-153490-8	MW-9	Total/NA	Water	NWTPH-Gx	
490-153490-9	MW-10	Total/NA	Water	NWTPH-Gx	
490-153490-10	MW-11	Total/NA	Water	NWTPH-Gx	
490-153490-11	MW-12	Total/NA	Water	NWTPH-Gx	
MB 490-521061/10	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 490-521061/4	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-521061/5	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
490-153490-1 DU	MW-1	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Analysis Batch: 520822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	8011	520878
490-153490-2	MW-2	Total/NA	Water	8011	520878
490-153490-3	MW-3	Total/NA	Water	8011	520878
490-153490-4	MW-4	Total/NA	Water	8011	520878
490-153490-6	MW-7	Total/NA	Water	8011	520878
490-153490-7	MW-8	Total/NA	Water	8011	520878
490-153490-8	MW-9	Total/NA	Water	8011	520878
490-153490-9	MW-10	Total/NA	Water	8011	520878
490-153490-10	MW-11	Total/NA	Water	8011	520878
490-153490-11	MW-12	Total/NA	Water	8011	520878
MB 490-520878/4-A	Method Blank	Total/NA	Water	8011	520878
LCS 490-520878/5-A	Lab Control Sample	Total/NA	Water	8011	520878
LCSD 490-520878/6-A	Lab Control Sample Dup	Total/NA	Water	8011	520878

Prep Batch: 520878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	8011	
490-153490-2	MW-2	Total/NA	Water	8011	
490-153490-3	MW-3	Total/NA	Water	8011	
490-153490-4	MW-4	Total/NA	Water	8011	
490-153490-6	MW-7	Total/NA	Water	8011	
490-153490-7	MW-8	Total/NA	Water	8011	
490-153490-8	MW-9	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 520878 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-9	MW-10	Total/NA	Water	8011	
490-153490-10	MW-11	Total/NA	Water	8011	
490-153490-11	MW-12	Total/NA	Water	8011	
MB 490-520878/4-A	Method Blank	Total/NA	Water	8011	
LCS 490-520878/5-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-520878/6-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 521072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	3510C	
490-153490-2	MW-2	Total/NA	Water	3510C	
490-153490-3	MW-3	Total/NA	Water	3510C	
490-153490-4	MW-4	Total/NA	Water	3510C	
490-153490-5	MW-6	Total/NA	Water	3510C	
490-153490-6	MW-7	Total/NA	Water	3510C	
490-153490-7	MW-8	Total/NA	Water	3510C	
490-153490-8	MW-9	Total/NA	Water	3510C	
490-153490-9	MW-10	Total/NA	Water	3510C	
490-153490-10	MW-11	Total/NA	Water	3510C	
490-153490-11	MW-12	Total/NA	Water	3510C	
MB 490-521072/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-521072/2-A	Lab Control Sample	Total/NA	Water	3510C	
490-153490-1 DU	MW-1	Total/NA	Water	3510C	
490-153490-11 DU	MW-12	Total/NA	Water	3510C	

Analysis Batch: 521105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-5	MW-6	Total/NA	Water	8011	521254
MB 490-521254/3-A	Method Blank	Total/NA	Water	8011	521254
LCS 490-521254/4-A	Lab Control Sample	Total/NA	Water	8011	521254
LCSD 490-521254/5-A	Lab Control Sample Dup	Total/NA	Water	8011	521254

Analysis Batch: 521250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	NWTPH-Dx	521072
490-153490-2	MW-2	Total/NA	Water	NWTPH-Dx	521072
490-153490-3	MW-3	Total/NA	Water	NWTPH-Dx	521072
490-153490-4	MW-4	Total/NA	Water	NWTPH-Dx	521072
490-153490-5	MW-6	Total/NA	Water	NWTPH-Dx	521072
490-153490-6	MW-7	Total/NA	Water	NWTPH-Dx	521072
490-153490-7	MW-8	Total/NA	Water	NWTPH-Dx	521072
490-153490-8	MW-9	Total/NA	Water	NWTPH-Dx	521072
490-153490-9	MW-10	Total/NA	Water	NWTPH-Dx	521072
490-153490-10	MW-11	Total/NA	Water	NWTPH-Dx	521072
490-153490-11	MW-12	Total/NA	Water	NWTPH-Dx	521072
MB 490-521072/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	521072
LCS 490-521072/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	521072
490-153490-1 DU	MW-1	Total/NA	Water	NWTPH-Dx	521072
490-153490-11 DU	MW-12	Total/NA	Water	NWTPH-Dx	521072

GC Semi VOA (Continued)

Prep Batch: 521254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-5	MW-6	Total/NA	Water	8011	
MB 490-521254/3-A	Method Blank	Total/NA	Water	8011	
LCS 490-521254/4-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-521254/5-A	Lab Control Sample Dup	Total/NA	Water	8011	

Metals

Prep Batch: 520721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	200.8	
490-153490-2	MW-2	Total/NA	Water	200.8	
490-153490-3	MW-3	Total/NA	Water	200.8	
490-153490-4	MW-4	Total/NA	Water	200.8	
490-153490-5	MW-6	Total/NA	Water	200.8	
490-153490-6	MW-7	Total/NA	Water	200.8	
490-153490-7	MW-8	Total/NA	Water	200.8	
490-153490-8	MW-9	Total/NA	Water	200.8	
490-153490-9	MW-10	Total/NA	Water	200.8	
490-153490-10	MW-11	Total/NA	Water	200.8	
490-153490-11	MW-12	Total/NA	Water	200.8	
MB 490-520721/1-A	Method Blank	Total/NA	Water	200.8	
LCS 490-520721/2-A	Lab Control Sample	Total/NA	Water	200.8	
490-153490-1 MS	MW-1	Total/NA	Water	200.8	
490-153490-1 MSD	MW-1	Total/NA	Water	200.8	

Analysis Batch: 521175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153490-1	MW-1	Total/NA	Water	200.8	520721
490-153490-2	MW-2	Total/NA	Water	200.8	520721
490-153490-3	MW-3	Total/NA	Water	200.8	520721
490-153490-4	MW-4	Total/NA	Water	200.8	520721
490-153490-5	MW-6	Total/NA	Water	200.8	520721
490-153490-6	MW-7	Total/NA	Water	200.8	520721
490-153490-7	MW-8	Total/NA	Water	200.8	520721
490-153490-8	MW-9	Total/NA	Water	200.8	520721
490-153490-9	MW-10	Total/NA	Water	200.8	520721
490-153490-10	MW-11	Total/NA	Water	200.8	520721
490-153490-11	MW-12	Total/NA	Water	200.8	520721
MB 490-520721/1-A	Method Blank	Total/NA	Water	200.8	520721
LCS 490-520721/2-A	Lab Control Sample	Total/NA	Water	200.8	520721
490-153490-1 MS	MW-1	Total/NA	Water	200.8	520721
490-153490-1 MSD	MW-1	Total/NA	Water	200.8	520721

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Client Sample ID: MW-1

Date Collected: 06/06/18 15:20
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 18:47	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 14:44	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 18:53	AK1	TAL NSH
Total/NA	Prep	8011			34.5 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/11/18 21:47	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 17:44	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 17:43	BLG	TAL NSH

Client Sample ID: MW-2

Date Collected: 06/06/18 14:25
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 19:14	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 15:05	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 20:08	AK1	TAL NSH
Total/NA	Prep	8011			34.9 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/11/18 22:03	MH	TAL NSH
Total/NA	Prep	3510C			1000 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 18:20	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 17:58	BLG	TAL NSH

Client Sample ID: MW-3

Date Collected: 06/06/18 13:30
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 19:40	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 15:26	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 20:45	AK1	TAL NSH
Total/NA	Prep	8011			34.9 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/11/18 22:18	MH	TAL NSH
Total/NA	Prep	3510C			1070 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 18:38	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:01	BLG	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Client Sample ID: MW-4

Date Collected: 06/05/18 14:00
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 20:06	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 15:46	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 21:22	AK1	TAL NSH
Total/NA	Prep	8011			35 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/11/18 22:34	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 18:57	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:04	BLG	TAL NSH

Client Sample ID: MW-6

Date Collected: 06/06/18 08:45
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 20:33	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 16:07	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 21:58	AK1	TAL NSH
Total/NA	Prep	8011			34.6 mL	2 mL	521254	06/12/18 14:06	MH	TAL NSH
Total/NA	Analysis	8011		1			521105	06/13/18 06:35	MH	TAL NSH
Total/NA	Prep	3510C			1000 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 19:15	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:08	BLG	TAL NSH

Client Sample ID: MW-7

Date Collected: 06/06/18 07:55
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 20:59	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 16:28	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 22:34	AK1	TAL NSH
Total/NA	Prep	8011			35 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 01:26	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 19:33	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:11	BLG	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Client Sample ID: MW-8

Date Collected: 06/06/18 10:25
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 21:25	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 16:49	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 23:10	AK1	TAL NSH
Total/NA	Prep	8011			34.6 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 01:41	MH	TAL NSH
Total/NA	Prep	3510C			980 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 19:51	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:14	BLG	TAL NSH

Client Sample ID: MW-9

Date Collected: 06/06/18 11:10
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 21:52	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 17:10	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/12/18 23:46	AK1	TAL NSH
Total/NA	Prep	8011			34.9 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 02:27	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 20:09	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:17	BLG	TAL NSH

Client Sample ID: MW-10

Date Collected: 06/06/18 12:00
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 22:18	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 17:31	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/13/18 00:22	AK1	TAL NSH
Total/NA	Prep	8011			34.4 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 02:43	MH	TAL NSH
Total/NA	Prep	3510C			1000 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 20:26	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:20	BLG	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Client Sample ID: MW-11

Date Collected: 06/05/18 14:55
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 22:44	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 17:51	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/13/18 00:57	AK1	TAL NSH
Total/NA	Prep	8011			34.7 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 02:58	MH	TAL NSH
Total/NA	Prep	3510C			990 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 20:44	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:23	BLG	TAL NSH

Client Sample ID: MW-12

Date Collected: 06/06/18 09:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153490-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	520715	06/09/18 23:11	SW1	TAL NSH
Total/NA	Prep	3510C			230 mL	1 mL	521004	06/11/18 14:58	MCO	TAL NSH
Total/NA	Analysis	8270D SIM		1			521224	06/12/18 18:12	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	521061	06/13/18 01:33	AK1	TAL NSH
Total/NA	Prep	8011			35.2 mL	2 mL	520878	06/11/18 10:11	MH	TAL NSH
Total/NA	Analysis	8011		1			520822	06/12/18 03:14	MH	TAL NSH
Total/NA	Prep	3510C			980 mL	1 mL	521072	06/12/18 07:42	KB	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			521250	06/12/18 21:02	AK1	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	520721	06/09/18 15:31	RDF	TAL NSH
Total/NA	Analysis	200.8		1			521175	06/11/18 18:32	BLG	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL NSH
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL NSH
200.8	Metals (ICP/MS)	EPA	TAL NSH
200.8	Preparation, Total Metals	EPA	TAL NSH
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL NSH
8011	Microextraction	SW846	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency
NWTPH = Northwest Total Petroleum Hydrocarbon
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 2Q18 GWM 25821(WA)

TestAmerica Job ID: 490-153490-1

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C789	07-19-18

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-153490 Chain of Custody

Cooler Received/Opened On 6/8/2018 @ 0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2049 (2 Hour Window)

1. Tracking # 8887 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 5.9 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? 1 Front YES...NO...NA

If yes, how many and where: _____

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) GH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

Loc: 490
153490

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2048 (2 Hour Window)

1. Tracking # 8826 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

Loc: 490
153490
#1
E

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2049 (2 Hour Window)

1. Tracking # 8951 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 2

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

Loc: 490
153490
#1
F

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @ 0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2049 (2 Hour Window)

1. Tracking # 8898 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17610176 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.2 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: NONE

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ZL

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial)

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial)

I certify that I attached a label with the unique LIMS number to each container (intial)

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8 23 17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
153490
#1
H

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2018 (2 Hour Window)

1. Tracking # 8865 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.0 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) OL

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were *correct containers* used for the *analysis requested*? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

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End of Form

Revised 8/23/17

6/15/2018

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Loc: 490
153490
#1
I

Cooler Received/Opened On 6/8/2018 @0920

Time Samples Removed From Cooler 2005 Time Samples Placed In Storage 2048 (2 hour Window)

1. Tracking # 8943 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 2.6 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic Bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● ← Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

TestAmerica Nashville
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brian Schoenneman	Lab PM: Leah Klingensmith	Carrier Tracking No(s):	COC No:
Client Contact: Paul Fairbairn	Phone: 916-213-3205	E-Mail: Leah.Klingensmith@testamericainc.com		Page: Page 1 of 1
Company: Stantec Consulting Corp.				Job #: Store No. 25821
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:			
City: Bellevue	TAT Requested (days): Standard			
State, Zip: WA, 98004-1465				
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested			
Email: paul.fairbairn@stantec.com	WO #:			
Project Name: 2Q18 GWM 25821	Project #: 185703911			
Site: 25821 Richland	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	BTEX, EDC, MTBE (8260)	EDB (8011)	Total Lead (200.8)	NWTPH-Dx	Naphthalene, 1-Methyl Naphthalene, 2-Methyl Naphthalene (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
MW-1	6/6/18	1520	G	W			X	X	X	X	X	X		
MW-2	6/6/18	1425	G	W			X	X	X	X	X	X		
MW-3	6/6/18	1330	G	W			X	X	X	X	X	X		
MW-4	6/5/18	1400	G	W			X	X	X	X	X	X		
~~MW-5~~ BS5			G	W			~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		NO Sample Drilled
MW-6	6/6/18	0845	G	W			X	X	X	X	X	X		
MW-7	6/6/18	0755	G	W			X	X	X	X	X	X		
MW-8	6/6/18	1025	G	W			X	X	X	X	X	X		
MW-9	6/6/18	1110	G	W			X	X	X	X	X	X		
MW-10	6/6/18	1200	G	W			X	X	X	X	X	X		
MW-11	6/5/18	1455	G	W			X	X	X	X	X	X		
MW-12	6/6/18	0935	G	W			X	X	X	X	X	X		

Loc: 490
153490

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Brian Schoenneman	Date/Time: 6/7/18 1200	Company: Stantec	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6-8-18 0920	Company TA NAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6-8-18	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6, 5.9, 1.7 4.4 3.2, 2.6,

6/15/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-159231-1
Client Project/Site: 3Q18 GWM 25821(WA)

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
9/24/2018 3:54:06 PM

Jimmy Huckaba, Project Manager I
(615)301-5746
jimmy.huckaba@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-159231-1	MW-1	Water	09/12/18 13:10	09/14/18 10:20
490-159231-2	MW-2	Water	09/12/18 13:50	09/14/18 10:20
490-159231-3	MW-3	Water	09/12/18 15:20	09/14/18 10:20
490-159231-4	MW-4	Water	09/12/18 10:40	09/14/18 10:20
490-159231-5	MW-6	Water	09/13/18 09:00	09/14/18 10:20
490-159231-6	MW-7	Water	09/12/18 12:15	09/14/18 10:20
490-159231-7	MW-8	Water	09/13/18 08:15	09/14/18 10:20
490-159231-8	MW-9	Water	09/13/18 07:25	09/14/18 10:20
490-159231-9	MW-10	Water	09/12/18 14:35	09/14/18 10:20
490-159231-10	MW-11	Water	09/12/18 11:20	09/14/18 10:20
490-159231-11	MW-12	Water	09/13/18 09:50	09/14/18 10:20

Job ID: 490-159231-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-159231-1

Comments
No additional comments.

Receipt
The samples were received on 9/14/2018 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.2º C, 2.1º C, 2.4º C and 5.6º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D SIM: The method blank for preparation batch 490-543414 contained Naphthalene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8011: The %RPD between the primary and confirmation column exceeded 40% for 1,3-Dichlorobenzene for the following sample: MW-6 (490-159231-5). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) NWTPH-Dx: The following sample contained a hydrocarbon pattern that most closely resembles a Gasoline product used by the laboratory for quantitative purposes: MW-6 (490-159231-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: The following samples formed emulsions during the extraction procedure: MW-1 (490-159231-1), MW-2 (490-159231-2), MW-3 (490-159231-3), MW-4 (490-159231-4), MW-6 (490-159231-5), MW-7 (490-159231-6), MW-8 (490-159231-7), MW-9 (490-159231-8), MW-10 (490-159231-9) and MW-11 (490-159231-10). The emulsions were broken up using centrifugation

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: MW-1

Date Collected: 09/12/18 13:10
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 17:52	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 17:52	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 17:52	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 17:52	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 17:52	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*09/15/18 17:52*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*09/15/18 17:52*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/15/18 17:52*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/15/18 17:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0960	0.0480	ug/L		09/15/18 18:25	09/18/18 20:27	1
2-Methylnaphthalene	ND		0.0960	0.0480	ug/L		09/15/18 18:25	09/18/18 20:27	1
1-Methylnaphthalene	ND		0.0960	0.0480	ug/L		09/15/18 18:25	09/18/18 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*54*		*10 - 120*	*09/15/18 18:25*	*09/18/18 20:27*	*1*
Nitrobenzene-d5	*47*		*27 - 120*	*09/15/18 18:25*	*09/18/18 20:27*	*1*
Terphenyl-d14	*71*		*13 - 120*	*09/15/18 18:25*	*09/18/18 20:27*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*09/17/18 17:04*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202	0.00605	ug/L		09/17/18 09:15	09/17/18 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*107*		*50 - 150*	*09/17/18 09:15*	*09/17/18 18:33*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		95.4	26.7	ug/L		09/17/18 10:34	09/17/18 21:14	1
Motor Oil Range Organics (C24-C40)	ND		95.4	47.7	ug/L		09/17/18 10:34	09/17/18 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*09/17/18 10:34*	*09/17/18 21:14*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:28	1

Client Sample ID: MW-2

Date Collected: 09/12/18 13:50
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 18:18	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 18:18	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 18:18	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 18:18	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 18:18	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*09/15/18 18:18*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/15/18 18:18*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*09/15/18 18:18*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*09/15/18 18:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 20:48	1
2-Methylnaphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 20:48	1
1-Methylnaphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*10 - 120*	*09/15/18 18:25*	*09/18/18 20:48*	*1*
Nitrobenzene-d5	*50*		*27 - 120*	*09/15/18 18:25*	*09/18/18 20:48*	*1*
Terphenyl-d14	*74*		*13 - 120*	*09/15/18 18:25*	*09/18/18 20:48*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*09/17/18 17:40*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		09/17/18 09:15	09/17/18 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*114*		*50 - 150*	*09/17/18 09:15*	*09/17/18 18:49*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		97.8	27.4	ug/L		09/17/18 10:34	09/18/18 00:10	1
Motor Oil Range Organics (C24-C40)	ND		97.8	48.9	ug/L		09/17/18 10:34	09/18/18 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*09/17/18 10:34*	*09/18/18 00:10*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:25	1

Client Sample ID: MW-3

Date Collected: 09/12/18 15:20
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 18:45	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 18:45	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 18:45	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 18:45	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 18:45	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*09/15/18 18:45*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*09/15/18 18:45*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*09/15/18 18:45*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*09/15/18 18:45*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 21:09	1
2-Methylnaphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 21:09	1
1-Methylnaphthalene	ND		0.0965	0.0482	ug/L		09/15/18 18:25	09/18/18 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*10 - 120*	*09/15/18 18:25*	*09/18/18 21:09*	*1*
Nitrobenzene-d5	*46*		*27 - 120*	*09/15/18 18:25*	*09/18/18 21:09*	*1*
Terphenyl-d14	*69*		*13 - 120*	*09/15/18 18:25*	*09/18/18 21:09*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*		*09/17/18 18:52*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0199	0.00597	ug/L		09/17/18 09:15	09/17/18 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*110*		*50 - 150*	*09/17/18 09:15*	*09/17/18 19:20*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		98.5	27.6	ug/L		09/17/18 10:34	09/17/18 20:57	1
Motor Oil Range Organics (C24-C40)	ND		98.5	49.2	ug/L		09/17/18 10:34	09/17/18 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*09/17/18 10:34*	*09/17/18 20:57*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:47	1

Client Sample ID: MW-4

Date Collected: 09/12/18 10:40
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 19:11	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 19:11	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 19:11	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 19:11	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 19:11	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*09/15/18 19:11*	*1*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*		*09/15/18 19:11*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*09/15/18 19:11*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/15/18 19:11*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0959	0.0479	ug/L		09/15/18 18:25	09/18/18 21:30	1
2-Methylnaphthalene	ND		0.0959	0.0479	ug/L		09/15/18 18:25	09/18/18 21:30	1
1-Methylnaphthalene	ND		0.0959	0.0479	ug/L		09/15/18 18:25	09/18/18 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*10 - 120*	*09/15/18 18:25*	*09/18/18 21:30*	*1*
Nitrobenzene-d5	*54*		*27 - 120*	*09/15/18 18:25*	*09/18/18 21:30*	*1*
Terphenyl-d14	*72*		*13 - 120*	*09/15/18 18:25*	*09/18/18 21:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*09/17/18 19:28*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0205	0.00616	ug/L		09/17/18 09:19	09/17/18 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*116*		*50 - 150*	*09/17/18 09:19*	*09/17/18 21:24*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		96.9	27.1	ug/L		09/17/18 10:34	09/18/18 00:27	1
Motor Oil Range Organics (C24-C40)	ND		96.9	48.5	ug/L		09/17/18 10:34	09/18/18 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*09/17/18 10:34*	*09/18/18 00:27*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:44	1

Client Sample ID: MW-6

Date Collected: 09/13/18 09:00
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 19:38	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 19:38	1
Ethylbenzene	**2.83**		1.00	0.190	ug/L			09/15/18 19:38	1
Xylenes, Total	**2.83**	**J**	3.00	0.580	ug/L			09/15/18 19:38	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 19:38	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/15/18 19:38*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*09/15/18 19:38*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*09/15/18 19:38*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/15/18 19:38*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**11.2**		0.0961	0.0480	ug/L		09/15/18 18:25	09/18/18 21:51	1
2-Methylnaphthalene	**5.99**		0.0961	0.0480	ug/L		09/15/18 18:25	09/18/18 21:51	1
1-Methylnaphthalene	**4.06**		0.0961	0.0480	ug/L		09/15/18 18:25	09/18/18 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*10 - 120*	*09/15/18 18:25*	*09/18/18 21:51*	*1*
Nitrobenzene-d5	*53*		*27 - 120*	*09/15/18 18:25*	*09/18/18 21:51*	*1*
Terphenyl-d14	*75*		*13 - 120*	*09/15/18 18:25*	*09/18/18 21:51*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**732**		100	55.0	ug/L			09/17/18 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*50 - 150*		*09/17/18 20:04*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0203	0.00610	ug/L		09/17/18 09:19	09/17/18 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*95*	*p*	*50 - 150*	*09/17/18 09:19*	*09/17/18 21:40*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**270**		97.0	27.2	ug/L		09/17/18 10:34	09/17/18 22:42	1
Motor Oil Range Organics (C24-C40)	ND		97.0	48.5	ug/L		09/17/18 10:34	09/17/18 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*64*		*50 - 150*	*09/17/18 10:34*	*09/17/18 22:42*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.425**	**J**	2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:50	1

Client Sample ID: MW-7

Date Collected: 09/12/18 12:15
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 20:04	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 20:04	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 20:04	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 20:04	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 20:04	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*09/15/18 20:04*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*09/15/18 20:04*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*09/15/18 20:04*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*09/15/18 20:04*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0962	0.0481	ug/L		09/15/18 18:25	09/18/18 22:12	1
2-Methylnaphthalene	ND		0.0962	0.0481	ug/L		09/15/18 18:25	09/18/18 22:12	1
1-Methylnaphthalene	ND		0.0962	0.0481	ug/L		09/15/18 18:25	09/18/18 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*10 - 120*	*09/15/18 18:25*	*09/18/18 22:12*	*1*
Nitrobenzene-d5	*48*		*27 - 120*	*09/15/18 18:25*	*09/18/18 22:12*	*1*
Terphenyl-d14	*70*		*13 - 120*	*09/15/18 18:25*	*09/18/18 22:12*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*09/17/18 20:40*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0203	0.00609	ug/L		09/17/18 09:19	09/17/18 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*117*		*50 - 150*	*09/17/18 09:19*	*09/17/18 21:55*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		96.2	26.9	ug/L		09/17/18 10:34	09/17/18 23:00	1
Motor Oil Range Organics (C24-C40)	ND		96.2	48.1	ug/L		09/17/18 10:34	09/17/18 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*09/17/18 10:34*	*09/17/18 23:00*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:40	1

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-8

Date Collected: 09/13/18 08:15
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 20:30	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 20:30	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 20:30	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 20:30	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 20:30	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*09/15/18 20:30*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*09/15/18 20:30*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*09/15/18 20:30*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*09/15/18 20:30*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0970	0.0485	ug/L		09/16/18 06:49	09/17/18 20:27	1
2-Methylnaphthalene	ND		0.0970	0.0485	ug/L		09/16/18 06:49	09/17/18 20:27	1
1-Methylnaphthalene	ND		0.0970	0.0485	ug/L		09/16/18 06:49	09/17/18 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*54*		*10 - 120*	*09/16/18 06:49*	*09/17/18 20:27*	*1*
Nitrobenzene-d5	*45*		*27 - 120*	*09/16/18 06:49*	*09/17/18 20:27*	*1*
Terphenyl-d14	*72*		*13 - 120*	*09/16/18 06:49*	*09/17/18 20:27*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*50 - 150*		*09/17/18 21:16*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00603	ug/L		09/17/18 09:19	09/17/18 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*115*		*50 - 150*	*09/17/18 09:19*	*09/17/18 22:11*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		102	28.7	ug/L		09/17/18 10:34	09/17/18 23:17	1
Motor Oil Range Organics (C24-C40)	ND		102	51.2	ug/L		09/17/18 10:34	09/17/18 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*09/17/18 10:34*	*09/17/18 23:17*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:31	1

Client Sample ID: MW-9

Date Collected: 09/13/18 07:25
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 20:57	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 20:57	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 20:57	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 20:57	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 20:57	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*09/15/18 20:57*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*09/15/18 20:57*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*09/15/18 20:57*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*09/15/18 20:57*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0963	0.0481	ug/L		09/16/18 06:49	09/17/18 20:48	1
2-Methylnaphthalene	ND		0.0963	0.0481	ug/L		09/16/18 06:49	09/17/18 20:48	1
1-Methylnaphthalene	ND		0.0963	0.0481	ug/L		09/16/18 06:49	09/17/18 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*54*		*10 - 120*	*09/16/18 06:49*	*09/17/18 20:48*	*1*
Nitrobenzene-d5	*45*		*27 - 120*	*09/16/18 06:49*	*09/17/18 20:48*	*1*
Terphenyl-d14	*69*		*13 - 120*	*09/16/18 06:49*	*09/17/18 20:48*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*09/17/18 21:52*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0198	0.00595	ug/L		09/17/18 09:19	09/17/18 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*113*		*50 - 150*	*09/17/18 09:19*	*09/17/18 22:26*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		98.7	27.6	ug/L		09/17/18 10:34	09/17/18 20:39	1
Motor Oil Range Organics (C24-C40)	ND		98.7	49.4	ug/L		09/17/18 10:34	09/17/18 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*09/17/18 10:34*	*09/17/18 20:39*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 14:02	1

Client Sample ID: MW-10

Date Collected: 09/12/18 14:35
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 21:23	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 21:23	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 21:23	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 21:23	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 21:23	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*09/15/18 21:23*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*09/15/18 21:23*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*09/15/18 21:23*	*1*
Toluene-d8 (Surr)	*125*		*70 - 130*		*09/15/18 21:23*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0963	0.0482	ug/L		09/16/18 06:49	09/17/18 21:09	1
2-Methylnaphthalene	ND		0.0963	0.0482	ug/L		09/16/18 06:49	09/17/18 21:09	1
1-Methylnaphthalene	ND		0.0963	0.0482	ug/L		09/16/18 06:49	09/17/18 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*51*		*10 - 120*	*09/16/18 06:49*	*09/17/18 21:09*	*1*
Nitrobenzene-d5	*42*		*27 - 120*	*09/16/18 06:49*	*09/17/18 21:09*	*1*
Terphenyl-d14	*71*		*13 - 120*	*09/16/18 06:49*	*09/17/18 21:09*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*09/17/18 22:28*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00602	ug/L		09/17/18 09:19	09/17/18 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*120*		*50 - 150*	*09/17/18 09:19*	*09/17/18 22:42*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		98.3	27.5	ug/L		09/17/18 10:34	09/17/18 23:35	1
Motor Oil Range Organics (C24-C40)	ND		98.3	49.1	ug/L		09/17/18 10:34	09/17/18 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*09/17/18 10:34*	*09/17/18 23:35*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.591**	**J**	2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:59	1

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-11

Date Collected: 09/12/18 11:20
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 21:49	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 21:49	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 21:49	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 21:49	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 21:49	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/15/18 21:49*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*09/15/18 21:49*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*09/15/18 21:49*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*09/15/18 21:49*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0960	0.0480	ug/L		09/16/18 06:49	09/17/18 21:30	1
2-Methylnaphthalene	ND		0.0960	0.0480	ug/L		09/16/18 06:49	09/17/18 21:30	1
1-Methylnaphthalene	ND		0.0960	0.0480	ug/L		09/16/18 06:49	09/17/18 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*52*		*10 - 120*	*09/16/18 06:49*	*09/17/18 21:30*	*1*
Nitrobenzene-d5	*44*		*27 - 120*	*09/16/18 06:49*	*09/17/18 21:30*	*1*
Terphenyl-d14	*72*		*13 - 120*	*09/16/18 06:49*	*09/17/18 21:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*50 - 150*		*09/17/18 23:04*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0202	0.00607	ug/L		09/17/18 09:19	09/17/18 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*120*		*50 - 150*	*09/17/18 09:19*	*09/17/18 22:57*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		98.5	27.6	ug/L		09/17/18 10:34	09/17/18 23:52	1
Motor Oil Range Organics (C24-C40)	ND		98.5	49.2	ug/L		09/17/18 10:34	09/17/18 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*09/17/18 10:34*	*09/17/18 23:52*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.441**	**J**	2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:56	1

Client Sample ID: MW-12

Date Collected: 09/13/18 09:50
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 22:16	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 22:16	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 22:16	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 22:16	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 22:16	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*09/15/18 22:16*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*09/15/18 22:16*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*09/15/18 22:16*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*09/15/18 22:16*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0996	0.0498	ug/L		09/18/18 06:20	09/19/18 19:15	1
2-Methylnaphthalene	ND		0.0996	0.0498	ug/L		09/18/18 06:20	09/19/18 19:15	1
1-Methylnaphthalene	ND		0.0996	0.0498	ug/L		09/18/18 06:20	09/19/18 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*51*		*10 - 120*	*09/18/18 06:20*	*09/19/18 19:15*	*1*
Nitrobenzene-d5	*44*		*27 - 120*	*09/18/18 06:20*	*09/19/18 19:15*	*1*
Terphenyl-d14	*69*		*13 - 120*	*09/18/18 06:20*	*09/19/18 19:15*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*50 - 150*		*09/17/18 23:39*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0201	0.00602	ug/L		09/17/18 09:19	09/17/18 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*108*		*50 - 150*	*09/17/18 09:19*	*09/17/18 23:28*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		95.9	26.9	ug/L		09/17/18 10:34	09/17/18 21:32	1
Motor Oil Range Organics (C24-C40)	ND		95.9	48.0	ug/L		09/17/18 10:34	09/17/18 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*72*		*50 - 150*	*09/17/18 10:34*	*09/17/18 21:32*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 13:53	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-542984/8
Matrix: Water
Analysis Batch: 542984

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.200	ug/L			09/15/18 14:47	1
Toluene	ND		1.00	0.170	ug/L			09/15/18 14:47	1
Ethylbenzene	ND		1.00	0.190	ug/L			09/15/18 14:47	1
Xylenes, Total	ND		3.00	0.580	ug/L			09/15/18 14:47	1
Methyl tert-butyl ether	ND		1.00	0.170	ug/L			09/15/18 14:47	1
1,2-Dichloroethane	ND		1.00	0.200	ug/L			09/15/18 14:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*09/15/18 14:47*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*09/15/18 14:47*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*09/15/18 14:47*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/15/18 14:47*	*1*

Lab Sample ID: LCS 490-542984/4
Matrix: Water
Analysis Batch: 542984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	44.44		ug/L		89	80 - 121		
Toluene			50.0	45.81		ug/L		92	80 - 126		
Ethylbenzene			50.0	44.12		ug/L		88	80 - 130		
Xylenes, Total			150	122.4		ug/L		82	80 - 132		
Methyl tert-butyl ether			50.0	48.13		ug/L		96	72 - 133		
1,2-Dichloroethane			50.0	40.36		ug/L		81	77 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-542984/5
Matrix: Water
Analysis Batch: 542984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	43.64		ug/L		87	80 - 121	2	12
Toluene			50.0	45.27		ug/L		91	80 - 126	1	13
Ethylbenzene			50.0	45.65		ug/L		91	80 - 130	3	12
Xylenes, Total			150	127.3		ug/L		85	80 - 132	4	11
Methyl tert-butyl ether			50.0	55.40		ug/L		111	72 - 133	14	16
1,2-Dichloroethane			50.0	39.55		ug/L		79	77 - 121	2	13

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-542984/5
Matrix: Water
Analysis Batch: 542984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*70 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 490-543074/1-A
Matrix: Water
Analysis Batch: 543539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0500	ug/L		09/15/18 18:25	09/18/18 19:24	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/15/18 18:25	09/18/18 19:24	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/15/18 18:25	09/18/18 19:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*60*		*10 - 120*	*09/15/18 18:25*	*09/18/18 19:24*	*1*
Nitrobenzene-d5	*54*		*27 - 120*	*09/15/18 18:25*	*09/18/18 19:24*	*1*
Terphenyl-d14	*63*		*13 - 120*	*09/15/18 18:25*	*09/18/18 19:24*	*1*

Lab Sample ID: LCS 490-543074/2-A
Matrix: Water
Analysis Batch: 543539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 543074

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			40.0	34.76		ug/L		87	37 - 120		
2-Methylnaphthalene			40.0	36.85		ug/L		92	31 - 120		
1-Methylnaphthalene			40.0	36.90		ug/L		92	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*69*		*10 - 120*
Nitrobenzene-d5	*59*		*27 - 120*
Terphenyl-d14	*76*		*13 - 120*

Lab Sample ID: LCSD 490-543074/3-A
Matrix: Water
Analysis Batch: 543539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 543074

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			40.0	38.90		ug/L		97	37 - 120	11	37
2-Methylnaphthalene			40.0	40.76		ug/L		102	31 - 120	10	35
1-Methylnaphthalene			40.0	42.09		ug/L		105	36 - 120	13	36

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*80*		*10 - 120*
Nitrobenzene-d5	*70*		*27 - 120*
Terphenyl-d14	*88*		*13 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 490-543100/1-A
Matrix: Water
Analysis Batch: 543292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100	0.0500	ug/L		09/16/18 06:49	09/17/18 19:25	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/16/18 06:49	09/17/18 19:25	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/16/18 06:49	09/17/18 19:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*10 - 120*	*09/16/18 06:49*	*09/17/18 19:25*	*1*
Nitrobenzene-d5	*63*		*27 - 120*	*09/16/18 06:49*	*09/17/18 19:25*	*1*
Terphenyl-d14	*84*		*13 - 120*	*09/16/18 06:49*	*09/17/18 19:25*	*1*

Lab Sample ID: LCS 490-543100/2-A
Matrix: Water
Analysis Batch: 543292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 543100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	40.0	36.00		ug/L		90	37 - 120
2-Methylnaphthalene	40.0	38.41		ug/L		96	31 - 120
1-Methylnaphthalene	40.0	38.60		ug/L		97	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*80*		*10 - 120*
Nitrobenzene-d5	*71*		*27 - 120*
Terphenyl-d14	*96*		*13 - 120*

Lab Sample ID: LCSD 490-543100/3-A
Matrix: Water
Analysis Batch: 543292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 543100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	40.0	39.05		ug/L		98	37 - 120	8	37
2-Methylnaphthalene	40.0	42.11		ug/L		105	31 - 120	9	35
1-Methylnaphthalene	40.0	41.40		ug/L		103	36 - 120	7	36

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*10 - 120*
Nitrobenzene-d5	*64*		*27 - 120*
Terphenyl-d14	*97*		*13 - 120*

Lab Sample ID: MB 490-543414/1-A
Matrix: Water
Analysis Batch: 543939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.1756		0.100	0.0500	ug/L		09/18/18 06:20	09/19/18 18:12	1
2-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/18/18 06:20	09/19/18 18:12	1
1-Methylnaphthalene	ND		0.100	0.0500	ug/L		09/18/18 06:20	09/19/18 18:12	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 490-543414/1-A
Matrix: Water
Analysis Batch: 543939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543414

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		10 - 120	09/18/18 06:20	09/19/18 18:12	1
Nitrobenzene-d5	54		27 - 120	09/18/18 06:20	09/19/18 18:12	1
Terphenyl-d14	74		13 - 120	09/18/18 06:20	09/19/18 18:12	1

Lab Sample ID: LCS 490-543414/2-A
Matrix: Water
Analysis Batch: 543939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 543414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			8.00	5.451		ug/L		68	37 - 120		
2-Methylnaphthalene			8.00	5.434		ug/L		68	31 - 120		
1-Methylnaphthalene			8.00	5.546		ug/L		69	36 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	61		10 - 120
Nitrobenzene-d5	56		27 - 120
Terphenyl-d14	78		13 - 120

Lab Sample ID: LCSD 490-543414/3-A
Matrix: Water
Analysis Batch: 543939

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 543414

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			8.00	5.248		ug/L		66	37 - 120	4	37
2-Methylnaphthalene			8.00	5.582		ug/L		70	31 - 120	3	35
1-Methylnaphthalene			8.00	5.782		ug/L		72	36 - 120	4	36

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		10 - 120
Nitrobenzene-d5	57		27 - 120
Terphenyl-d14	74		13 - 120

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-543153/7
Matrix: Water
Analysis Batch: 543153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100	55.0	ug/L			09/17/18 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		50 - 150		09/17/18 10:35	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 490-543153/5
Matrix: Water
Analysis Batch: 543153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	1144		ug/L		114	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*87*		*50 - 150*

Lab Sample ID: LCSD 490-543153/6
Matrix: Water
Analysis Batch: 543153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	1116		ug/L		112	39 - 143	2	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*86*		*50 - 150*

Lab Sample ID: 490-159231-2 DU
Matrix: Water
Analysis Batch: 543153

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	ND			ND		ug/L				NC	18

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*99*		*50 - 150*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 490-543183/4-A
Matrix: Water
Analysis Batch: 543226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		09/17/18 09:15	09/17/18 12:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*117*		*50 - 150*	*09/17/18 09:15*	*09/17/18 12:37*	*1*

Lab Sample ID: LCS 490-543183/5-A
Matrix: Water
Analysis Batch: 543226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 543183

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide			0.286	0.2999		ug/L		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*115*		*50 - 150*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 490-543183/6-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 543226 — **Prep Batch: 543183**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			0.286	0.3283		ug/L		115	70 - 130	9	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*117*		*50 - 150*

Lab Sample ID: MB 490-543185/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 543226 — **Prep Batch: 543185**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200	0.00600	ug/L		09/17/18 09:18	09/17/18 20:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*120*		*50 - 150*	*09/17/18 09:18*	*09/17/18 20:07*	*1*

Lab Sample ID: LCS 490-543185/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 543226 — **Prep Batch: 543185**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide			0.286	0.3226		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*116*		*50 - 150*

Lab Sample ID: LCSD 490-543185/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 543226 — **Prep Batch: 543185**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			0.286	0.3420		ug/L		120	70 - 130	6	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*117*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-543242/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 543276 — **Prep Batch: 543242**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		100	28.0	ug/L		09/17/18 10:33	09/17/18 19:47	1
Motor Oil Range Organics (C24-C40)	ND		100	50.0	ug/L		09/17/18 10:33	09/17/18 19:47	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 490-543242/1-A
Matrix: Water
Analysis Batch: 543276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 543242

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*66*		*50 - 150*	*09/17/18 10:33*	*09/17/18 19:47*	*1*

Lab Sample ID: LCS 490-543242/2-A
Matrix: Water
Analysis Batch: 543276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 543242

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			1000	1005		ug/L		101	51 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*96*		*50 - 150*

Lab Sample ID: 490-159231-10 DU
Matrix: Water
Analysis Batch: 543276

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 543242

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			ND		ug/L				NC	41
Motor Oil Range Organics (C24-C40)	ND			ND		ug/L				NC	41

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 490-544148/1-A
Matrix: Water
Analysis Batch: 544599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 544148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00	0.100	ug/L		09/20/18 10:54	09/21/18 12:26	1

Lab Sample ID: LCS 490-544148/2-A
Matrix: Water
Analysis Batch: 544599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 544148

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			100	107.4		ug/L		107	85 - 115		

GC/MS VOA

Analysis Batch: 542984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	8260C	
490-159231-2	MW-2	Total/NA	Water	8260C	
490-159231-3	MW-3	Total/NA	Water	8260C	
490-159231-4	MW-4	Total/NA	Water	8260C	
490-159231-5	MW-6	Total/NA	Water	8260C	
490-159231-6	MW-7	Total/NA	Water	8260C	
490-159231-7	MW-8	Total/NA	Water	8260C	
490-159231-8	MW-9	Total/NA	Water	8260C	
490-159231-9	MW-10	Total/NA	Water	8260C	
490-159231-10	MW-11	Total/NA	Water	8260C	
490-159231-11	MW-12	Total/NA	Water	8260C	
MB 490-542984/8	Method Blank	Total/NA	Water	8260C	
LCS 490-542984/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-542984/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 543074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	3510C	
490-159231-2	MW-2	Total/NA	Water	3510C	
490-159231-3	MW-3	Total/NA	Water	3510C	
490-159231-4	MW-4	Total/NA	Water	3510C	
490-159231-5	MW-6	Total/NA	Water	3510C	
490-159231-6	MW-7	Total/NA	Water	3510C	
MB 490-543074/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-543074/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-543074/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 543100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-7	MW-8	Total/NA	Water	3510C	
490-159231-8	MW-9	Total/NA	Water	3510C	
490-159231-9	MW-10	Total/NA	Water	3510C	
490-159231-10	MW-11	Total/NA	Water	3510C	
MB 490-543100/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-543100/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-543100/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 543292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-7	MW-8	Total/NA	Water	8270D SIM	543100
490-159231-8	MW-9	Total/NA	Water	8270D SIM	543100
490-159231-9	MW-10	Total/NA	Water	8270D SIM	543100
490-159231-10	MW-11	Total/NA	Water	8270D SIM	543100
MB 490-543100/1-A	Method Blank	Total/NA	Water	8270D SIM	543100
LCS 490-543100/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	543100
LCSD 490-543100/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	543100

GC/MS Semi VOA (Continued)

Prep Batch: 543414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-11	MW-12	Total/NA	Water	3510C	
MB 490-543414/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-543414/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-543414/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 543539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	8270D SIM	543074
490-159231-2	MW-2	Total/NA	Water	8270D SIM	543074
490-159231-3	MW-3	Total/NA	Water	8270D SIM	543074
490-159231-4	MW-4	Total/NA	Water	8270D SIM	543074
490-159231-5	MW-6	Total/NA	Water	8270D SIM	543074
490-159231-6	MW-7	Total/NA	Water	8270D SIM	543074
MB 490-543074/1-A	Method Blank	Total/NA	Water	8270D SIM	543074
LCS 490-543074/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	543074
LCSD 490-543074/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	543074

Analysis Batch: 543939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-11	MW-12	Total/NA	Water	8270D SIM	543414
MB 490-543414/1-A	Method Blank	Total/NA	Water	8270D SIM	543414
LCS 490-543414/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	543414
LCSD 490-543414/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	543414

GC VOA

Analysis Batch: 543153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	NWTPH-Gx	
490-159231-2	MW-2	Total/NA	Water	NWTPH-Gx	
490-159231-3	MW-3	Total/NA	Water	NWTPH-Gx	
490-159231-4	MW-4	Total/NA	Water	NWTPH-Gx	
490-159231-5	MW-6	Total/NA	Water	NWTPH-Gx	
490-159231-6	MW-7	Total/NA	Water	NWTPH-Gx	
490-159231-7	MW-8	Total/NA	Water	NWTPH-Gx	
490-159231-8	MW-9	Total/NA	Water	NWTPH-Gx	
490-159231-9	MW-10	Total/NA	Water	NWTPH-Gx	
490-159231-10	MW-11	Total/NA	Water	NWTPH-Gx	
490-159231-11	MW-12	Total/NA	Water	NWTPH-Gx	
MB 490-543153/7	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 490-543153/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-543153/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
490-159231-2 DU	MW-2	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 543183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	8011	
490-159231-2	MW-2	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 543183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-3	MW-3	Total/NA	Water	8011	
MB 490-543183/4-A	Method Blank	Total/NA	Water	8011	
LCS 490-543183/5-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-543183/6-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 543185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-4	MW-4	Total/NA	Water	8011	
490-159231-5	MW-6	Total/NA	Water	8011	
490-159231-6	MW-7	Total/NA	Water	8011	
490-159231-7	MW-8	Total/NA	Water	8011	
490-159231-8	MW-9	Total/NA	Water	8011	
490-159231-9	MW-10	Total/NA	Water	8011	
490-159231-10	MW-11	Total/NA	Water	8011	
490-159231-11	MW-12	Total/NA	Water	8011	
MB 490-543185/3-A	Method Blank	Total/NA	Water	8011	
LCS 490-543185/4-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-543185/5-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 543226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	8011	543183
490-159231-2	MW-2	Total/NA	Water	8011	543183
490-159231-3	MW-3	Total/NA	Water	8011	543183
490-159231-4	MW-4	Total/NA	Water	8011	543185
490-159231-5	MW-6	Total/NA	Water	8011	543185
490-159231-6	MW-7	Total/NA	Water	8011	543185
490-159231-7	MW-8	Total/NA	Water	8011	543185
490-159231-8	MW-9	Total/NA	Water	8011	543185
490-159231-9	MW-10	Total/NA	Water	8011	543185
490-159231-10	MW-11	Total/NA	Water	8011	543185
490-159231-11	MW-12	Total/NA	Water	8011	543185
MB 490-543183/4-A	Method Blank	Total/NA	Water	8011	543183
MB 490-543185/3-A	Method Blank	Total/NA	Water	8011	543185
LCS 490-543183/5-A	Lab Control Sample	Total/NA	Water	8011	543183
LCS 490-543185/4-A	Lab Control Sample	Total/NA	Water	8011	543185
LCSD 490-543183/6-A	Lab Control Sample Dup	Total/NA	Water	8011	543183
LCSD 490-543185/5-A	Lab Control Sample Dup	Total/NA	Water	8011	543185

Prep Batch: 543242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	3510C	
490-159231-2	MW-2	Total/NA	Water	3510C	
490-159231-3	MW-3	Total/NA	Water	3510C	
490-159231-4	MW-4	Total/NA	Water	3510C	
490-159231-5	MW-6	Total/NA	Water	3510C	
490-159231-6	MW-7	Total/NA	Water	3510C	
490-159231-7	MW-8	Total/NA	Water	3510C	
490-159231-8	MW-9	Total/NA	Water	3510C	
490-159231-9	MW-10	Total/NA	Water	3510C	
490-159231-10	MW-11	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 543242 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-11	MW-12	Total/NA	Water	3510C	
MB 490-543242/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-543242/2-A	Lab Control Sample	Total/NA	Water	3510C	
490-159231-10 DU	MW-11	Total/NA	Water	3510C	

Analysis Batch: 543276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	NWTPH-Dx	543242
490-159231-2	MW-2	Total/NA	Water	NWTPH-Dx	543242
490-159231-3	MW-3	Total/NA	Water	NWTPH-Dx	543242
490-159231-4	MW-4	Total/NA	Water	NWTPH-Dx	543242
490-159231-5	MW-6	Total/NA	Water	NWTPH-Dx	543242
490-159231-6	MW-7	Total/NA	Water	NWTPH-Dx	543242
490-159231-7	MW-8	Total/NA	Water	NWTPH-Dx	543242
490-159231-8	MW-9	Total/NA	Water	NWTPH-Dx	543242
490-159231-9	MW-10	Total/NA	Water	NWTPH-Dx	543242
490-159231-10	MW-11	Total/NA	Water	NWTPH-Dx	543242
490-159231-11	MW-12	Total/NA	Water	NWTPH-Dx	543242
MB 490-543242/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	543242
LCS 490-543242/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	543242
490-159231-10 DU	MW-11	Total/NA	Water	NWTPH-Dx	543242

Metals

Prep Batch: 544148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	200.8	
490-159231-2	MW-2	Total/NA	Water	200.8	
490-159231-3	MW-3	Total/NA	Water	200.8	
490-159231-4	MW-4	Total/NA	Water	200.8	
490-159231-5	MW-6	Total/NA	Water	200.8	
490-159231-6	MW-7	Total/NA	Water	200.8	
490-159231-7	MW-8	Total/NA	Water	200.8	
490-159231-8	MW-9	Total/NA	Water	200.8	
490-159231-9	MW-10	Total/NA	Water	200.8	
490-159231-10	MW-11	Total/NA	Water	200.8	
490-159231-11	MW-12	Total/NA	Water	200.8	
MB 490-544148/1-A	Method Blank	Total/NA	Water	200.8	
LCS 490-544148/2-A	Lab Control Sample	Total/NA	Water	200.8	

Analysis Batch: 544599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-1	MW-1	Total/NA	Water	200.8	544148
490-159231-2	MW-2	Total/NA	Water	200.8	544148
490-159231-3	MW-3	Total/NA	Water	200.8	544148
490-159231-4	MW-4	Total/NA	Water	200.8	544148
490-159231-5	MW-6	Total/NA	Water	200.8	544148
490-159231-6	MW-7	Total/NA	Water	200.8	544148
490-159231-7	MW-8	Total/NA	Water	200.8	544148
490-159231-8	MW-9	Total/NA	Water	200.8	544148

Metals (Continued)

Analysis Batch: 544599 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-159231-9	MW-10	Total/NA	Water	200.8	544148
490-159231-10	MW-11	Total/NA	Water	200.8	544148
490-159231-11	MW-12	Total/NA	Water	200.8	544148
MB 490-544148/1-A	Method Blank	Total/NA	Water	200.8	544148
LCS 490-544148/2-A	Lab Control Sample	Total/NA	Water	200.8	544148

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-1

Date Collected: 09/12/18 13:10
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 17:52	AK1	TAL NSH
Total/NA	Prep	3510C			260.4 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 20:27	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 17:04	GWM	TAL NSH
Total/NA	Prep	8011			34.7 mL	2 mL	543183	09/17/18 09:15	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 18:33	ZXS	TAL NSH
Total/NA	Prep	3510C			1047.8 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 21:14	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:28	LDC	TAL NSH

Client Sample ID: MW-2

Date Collected: 09/12/18 13:50
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 18:18	AK1	TAL NSH
Total/NA	Prep	3510C			259.2 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 20:48	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 17:40	GWM	TAL NSH
Total/NA	Prep	8011			35 mL	2 mL	543183	09/17/18 09:15	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 18:49	ZXS	TAL NSH
Total/NA	Prep	3510C			1022.5 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/18/18 00:10	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:25	LDC	TAL NSH

Client Sample ID: MW-3

Date Collected: 09/12/18 15:20
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 18:45	AK1	TAL NSH
Total/NA	Prep	3510C			259.2 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 21:09	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 18:52	GWM	TAL NSH
Total/NA	Prep	8011			35.2 mL	2 mL	543183	09/17/18 09:15	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 19:20	ZXS	TAL NSH
Total/NA	Prep	3510C			1015.7 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 20:57	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:47	LDC	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-4

Date Collected: 09/12/18 10:40
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 19:11	AK1	TAL NSH
Total/NA	Prep	3510C			260.8 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 21:30	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 19:28	GWM	TAL NSH
Total/NA	Prep	8011			34.1 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 21:24	ZXS	TAL NSH
Total/NA	Prep	3510C			1031.8 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/18/18 00:27	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:44	LDC	TAL NSH

Client Sample ID: MW-6

Date Collected: 09/13/18 09:00
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 19:38	AK1	TAL NSH
Total/NA	Prep	3510C			260.2 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 21:51	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 20:04	GWM	TAL NSH
Total/NA	Prep	8011			34.4 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 21:40	ZXS	TAL NSH
Total/NA	Prep	3510C			1031.1 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 22:42	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:50	LDC	TAL NSH

Client Sample ID: MW-7

Date Collected: 09/12/18 12:15
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 20:04	AK1	TAL NSH
Total/NA	Prep	3510C			259.8 mL	1 mL	543074	09/15/18 18:25	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543539	09/18/18 22:12	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 20:40	GWM	TAL NSH
Total/NA	Prep	8011			34.5 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 21:55	ZXS	TAL NSH
Total/NA	Prep	3510C			1039.2 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 23:00	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:40	LDC	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-8

Date Collected: 09/13/18 08:15
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 20:30	AK1	TAL NSH
Total/NA	Prep	3510C			257.8 mL	1 mL	543100	09/16/18 06:49	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543292	09/17/18 20:27	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 21:16	GWM	TAL NSH
Total/NA	Prep	8011			34.8 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 22:11	ZXS	TAL NSH
Total/NA	Prep	3510C			976.7 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 23:17	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:31	LDC	TAL NSH

Client Sample ID: MW-9

Date Collected: 09/13/18 07:25
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 20:57	AK1	TAL NSH
Total/NA	Prep	3510C			259.7 mL	1 mL	543100	09/16/18 06:49	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543292	09/17/18 20:48	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 21:52	GWM	TAL NSH
Total/NA	Prep	8011			35.3 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 22:26	ZXS	TAL NSH
Total/NA	Prep	3510C			1013.1 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 20:39	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 14:02	LDC	TAL NSH

Client Sample ID: MW-10

Date Collected: 09/12/18 14:35
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 21:23	AK1	TAL NSH
Total/NA	Prep	3510C			259.6 mL	1 mL	543100	09/16/18 06:49	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543292	09/17/18 21:09	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 22:28	GWM	TAL NSH
Total/NA	Prep	8011			34.9 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 22:42	ZXS	TAL NSH
Total/NA	Prep	3510C			1017.5 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 23:35	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:59	LDC	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Client Sample ID: MW-11

Date Collected: 09/12/18 11:20
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 21:49	AK1	TAL NSH
Total/NA	Prep	3510C			260.3 mL	1 mL	543100	09/16/18 06:49	JKG	TAL NSH
Total/NA	Analysis	8270D SIM		1			543292	09/17/18 21:30	MJH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 23:04	GWM	TAL NSH
Total/NA	Prep	8011			34.6 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 22:57	ZXS	TAL NSH
Total/NA	Prep	3510C			1015.5 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 23:52	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:56	LDC	TAL NSH

Client Sample ID: MW-12

Date Collected: 09/13/18 09:50
Date Received: 09/14/18 10:20

Lab Sample ID: 490-159231-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	542984	09/15/18 22:16	AK1	TAL NSH
Total/NA	Prep	3510C			250.9 mL	1 mL	543414	09/18/18 06:20	CC	TAL NSH
Total/NA	Analysis	8270D SIM		1			543939	09/19/18 19:15	T1C	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	543153	09/17/18 23:39	GWM	TAL NSH
Total/NA	Prep	8011			34.9 mL	2 mL	543185	09/17/18 09:19	ZXS	TAL NSH
Total/NA	Analysis	8011		1			543226	09/17/18 23:28	ZXS	TAL NSH
Total/NA	Prep	3510C			1042.4 mL	1 mL	543242	09/17/18 10:34	MCO	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1			543276	09/17/18 21:32	LOJ	TAL NSH
Total/NA	Prep	200.8			50 mL	50 mL	544148	09/20/18 10:54	MNC	TAL NSH
Total/NA	Analysis	200.8		1			544599	09/21/18 13:53	LDC	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL NSH
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL NSH
200.8	Metals (ICP/MS)	EPA	TAL NSH
200.8	Preparation, Total Metals	EPA	TAL NSH
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL NSH
8011	Microextraction	SW846	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency
NWTPH = Northwest Total Petroleum Hydrocarbon
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 3Q18 GWM 25821(WA)

TestAmerica Job ID: 490-159231-1

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C789	07-19-19

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-159231 Chain of Custody

Cooler Received/Opened On 9/14/2018 @ 10:20

Time Samples Removed From Cooler 1634 Time Samples Placed In Storage 1647 (2 Hour Window)

1. Tracking # 9364 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960358 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.2 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) A.J.

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) TR

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) TR

I certify that I attached a label with the unique LIMS number to each container (intial) TR

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 09-14-2018 @ 10:20

Time Samples Removed From Cooler 1634 Time Samples Placed In Storage 1647 (2 Hour Window)

1. Tracking # 9342 (last 4 digits, FedEx) Courier: _FedEx_

IR Gun ID 14740456 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 5.6 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) KD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) TR

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) TR

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) TR

I certify that I attached a label with the unique LIMS number to each container (intial) TR

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 9/14/2018 @ 1020 ACE 9/14/2018

Time Samples Removed From Cooler ~~1353~~ 1634 Time Samples Placed In Storage 1647 (2 Hour Window)

1. Tracking # 9353 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 2.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA X Rubber cuff

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ACE

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) TR

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) TR

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) TR

I certify that I attached a label with the unique LIMS number to each container (intial) TR

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 9/14/2018 @ 1020

Time Samples Removed From Cooler 1634 Time Samples Placed In Storage 1647 (2 Hour Window)

1. Tracking # 9320 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17610176 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 2.1 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...(NA)

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2.2

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? (YES)...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...(NO)...NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) TR

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) TR

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) TR

I certify that I attached a label with the unique LIMS number to each container (intial) TR

21. Were there Non-Conformance issues at login? YES...(NO) Was a NCM generated? YES...(NO)...#_____

BIS = Broken in shipment

TestAmerica Nashville
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brian Schoenneman	Lab PM: Leah Klingensmith	Carrier Tracking No(s):	COC No:
Client Contact: Paul Fairbairn	Phone: 916-213-3205	E-Mail: Leah.Klingensmith@testamericainc.com		Page: Page 1 of 1
Company: Stantec Consulting Corp.				Job #: Store No. 25821

Address: 11130 NE 33rd Place Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Bellevue	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: WA, 98004-1465			
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested		
Email: paul.fairbairn@stantec.com	WO #:		
Project Name: 3Q18 GWM 25821	Project #: 185703911		
Site: 25821 Richland	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	BTEX, EDC, MTBE (8260)	EDB (8011)	Total Lead (200.8)	NWTPH-Dx	Naphthalene, 1-Methyl Naphthalene, 2-Methyl Naphthalene (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
MW-1	9/12/18	1310	G	W			X	X	X	X	X	X		
MW-2	9/12/18	1350	G	W			X	X	X	X	X	X		
MW-3	9/12/18	1520	G	W			X	X	X	X	X	X		Loc: 490 159231
MW-4	9/12/18	1040	G	W			X	X	X	X	X	X		
~~MW-5~~ BJS			~~G~~	~~W~~			~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		
MW-6	9/13/18	0900	G	W			X	X	X	X	X	X		
MW-7	9/12/18	1215	G	W			X	X	X	X	X	X		
MW-8	9/13/18	0815	G	W			X	X	X	X	X	X		
MW-9	9/13/18	0725	G	W			X	X	X	X	X	X		
MW-10	9/12/18	1435	G	W			X	X	X	X	X	X		
MW-11	9/12/18	1120	G	W			X	X	X	X	X	X		
MW-12	9/13/18	0950	G	W			X	X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Brian Schoenneman	Date/Time: 9/13/18 1500	Company STANTEC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/14/18 1020	Company TA-NAS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: (2.1)

Stantec

Work Request Form

Project Name: Former 7-Eleven Store No. 25821 **Date:** 2/21/16
Site Address: 1824 George Washington Way, Richland, Washington
Activity: Sampling of Monitoring Wells MW-1 through MW-12
Project No.: 185730037 **Task:** ~~600.0700~~ 600.0700
Project Manager: Paul Fairbairn
Business Unit Leader/Regional Manager: John Wainwright
Prepared by: Andrea Schweiter **Reviewed by:** **Submitted to:**

WORK DESCRIPTION:

1. Arrive onsite and check in with Subway Restaurant manager and contact Paul Fairbairn.
2. Review HASP, conduct Health and Safety briefing and perform Site Walk to determine any traffic flow.
3. Open wells shown on attached table and let groundwater levels equilibrate.
4. Inspect well conditions note if any well needs repair.
5. Gauge all site wells following gauging order on Sampling Request Form.
6. Low-flow purge and sample wells following the sampling order provided.
7. Take a drum for purge water. Store purge water in drums onsite, make sure they are labeled properly and secured.
8. Take inventory of all waste drums generated by Stantec at the site, and mark locations on site plan.
9. Fill Out Equipment Billing Sheet for all equipment used on the job and attach with field notes
10. Call or text Paul Fairbairn in the office prior to leaving the site.
11. Turn in field notes to Andrea Schweiter ASAP

ANALYTICAL REQUIREMENTS:	BOTTLES:	EQUIPMENT NEEDED:
• NWTPH-Gx	• 3-HCl VOAs	H&S plan
• BTEX, EDC, MTBE(8260)	• 3-HCl VOAs	Safety Equipment
• EDB (8011)	• 3-HCl VOAs	Delineators
• Total Lead (200.8)	• 1-250mL poly w/HNO3	Test America Cooler with bottles
• NWTPH-Dx	• 2-1L Ambers unpreserved or preserved	Low-Flow Purging/Sampling Equipment
• Total Naphthalenes (8270)	• 2-250mL Ambers Unpreserved	Oil/Water Interface Probe
• Nitrate	• 1-250mL unp. Poly	Disposable bailers/ Rope
		Peristaltic Pump & Tubing
		Drum and labels

ESTIMATED HOURS TO COMPLETE:

Billing Title	Billing Category	Authorized Hours to Complete	Task No.
Field Tech	Regular - Direct Labor	14 hours + 7 hours Travel	600.0700
Equipment Form	Regular - Direct Labor		600.0700
Bottle Order	Regular - Direct Labor	0.5	600.0115
	Total Hours	**21.5**	

AUTHORIZATION: **COMPLETED:**

TestAmerica Nashville

Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brian Schoenneman	Lab PM: Leah Klingensmith	Carrier Tracking No(s):
Client Contact: Paul Fairbairn	Phone: 916-213-3205	E-Mail: Leah.Klingensmith@testamericainc.com	
Company: Stantec Consulting Corp.			
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:		
City: Bellevue	TAT Requested (days): Standard		
State, Zip: WA, 98004-1465			
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested		
Email: paul.fairbairn@stantec.com	WO #:		
Project Name: 1Q18 GWM 25821	Project #: 185750037		
Site: 25821 Richland	SSOW#:		

COC No:

Page: Page 1 of 1

Job #: Store No. 25821

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)
Other:	

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	BTEX, EDC, MTBE (8260)	EDB (8011)	Total Lead (200.8)	NWTPH-Dx	Naphthalene, 1-Methyl Naphthalene, 2-Methyl Naphthalene (8270)	Nitrates	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-1	2/21/18	1440	G	W			X	X	X	X	X	X	X		
MW-2	2/22/18	0830	G	W			X	X	X	X	X	X	X		
MW-3	2/22/18	0920	G	W			X	X	X	X	X	X	X		
MW-4	2/22/18	1010	G	W			X	X	X	X	X	X	X		
MW-5			G	W			X	X	X	X	X	X	X		Dry Well no Sample
MW-6	2/22/18	1110	G	W			X	X	X	X	X	X	X		
MW-7	2/22/18	1200	G	W			X	X	X	X	X	X	X		
MW-8	2/22/18	1530	G	W			X	X	X	X	X	X	X		
MW-9	2/22/18	1415	G	W			X	X	X	X	X	X	X		
MW-10	2/22/18	1510	G	W			X	X	X	X	X	X	X		
MW-11	2/22/18	1500	G	W			X	X	X	X	X	X	X		
MW-12	2/22/18	1645	G	W			X	X	X	X	X	X	X		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Brian Schoenneman	2/23/18 1000	Stantec			

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		

Appendix D

Groundwater Field Sampling Sheets – 1Q 2018, 2Q 2018, and 3Q 2018

Site Visitation Report

Project Name: Former 7-Eleven Store No. 25821

Name(s): Brian Schoenneman Date: 2/21-2/22/18 Time of Arrival Call-In: _____

Arrival Time: 1148/0645 Departure Time: 1500/1730 Time of Departure Call-In: _____

Weather Conditions: (SUN) CLOUDY RAIN SNOW Temperature: 24-31 F

DRUM INVENTORY:

1	WATER		CARBON	TOTAL OPEN TOP	
	SOIL		EMPTY	TOTAL BUNG TOP	1

Please take a picture of anything not clearly labeled

HEALTH AND SAFETY ASSESSMENT:

Traffic and delineation	HASP and hospital directions
PPE	First aid kit
Weather/Cold stress	Fire extinguisher
Slips, trips, falls	Proper lifting of heavy items
Proper tools for each task	Bottle handling/glassware

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES:

2/21/18 11:48 Arrive Did H&S Assessment, Iniated RMS-2 Today. Gauged 12 wells on site. Sampled MW-1. Kept Samples in Room Overnight.

12/22/18 0645 Arrive Did H&S Assessment Annotated RMS-2 Purged & Collected Samples from 10 Remaining Wells onsite. MW-5 is Dry.
1730 Depart

Purge Water Drum is in Trash Compound. 2/3 Full

Kept Samples inside hotel Room on ice To Prevent them from Freezing. Shipped Samples on 2/23/17 from FedEx at SeaTac International.

Groundwater Gauging Form

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185750037 **Task:** 600.0700
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman

Well Number	Gauge Order	Sample Order	Analyses	Time	DTW (ft.)	DTB (ft.)	Sample? (Y/N)	Comments (Please Note Condition of Well)
MW-1	1	1	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1219	17.43	19.75		
MW-2	2	2	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1225	17.41	18.02		
MW-3	3	3	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1228	17.29	19.44		
MW-4	4	4	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1235	16.89	18.47		
MW-5	5	5	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1240	DRY	16.50		
MW-6	6	6	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1244	16.45	19.23		
MW-7	7	7	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1250	16.24	18.10		
MW-8	8	8	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1259	16.38	20.75		
MW-9	9	9	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1304	16.69	21.94		
MW-10	10	10	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1308	17.13	23.05		
MW-11	11	11	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1312	16.93	22.59		
MW-12	12	12	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270) & Nitrate	1316	15.67	21.70		

Estimated Gallons Purged:

NOTES:

2/2/18 YSI (a) Conductivity 1413 µs buffer 1310/1413
ORP @ 0.16°C @ 237 mV buffer 256.0/257.0
pH 7.00 buffer 6.96/7.00 pH 4.00 buffer 3.98/4.00
D.O. @ 10:26.08 HP x.75 = 769.56 mm Hg 15.50 mg/L / 15.50 mg/L
2/22/18 YSI (a) Conductivity 1413 µs buffer 1253/1413 µs
ORP @ 0°C @ 237 mV buffer 247/257 mV
pH 7.00 buffer 5.72/7.00 pH 4.00 buffer 5.02/4.00
D.O @ 10:26.08 HP x.75 = 769.56 mm Hg 10.26/12.91 mg/L

DTP: Depth to Free Product (FP or NAPH) Below TOC
DTW: Depth to Groundwater Below TOC
DTB: Depth to Bottom of Well Casing Below TOC

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-1

Date Purged: 2/21/18 Start (2400hr): 1410 End (2400hr): _____
Date Sampled: 2/21/18 Sample Time (2400hr): 1440
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 19.75
Depth to Water (ft): 17.43
Water Column Height (ft): 2.32 Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	D.O. mg/L
2/21/18	1415	0.0	8.46	895	6.49	Clear	110.7	
	1420	0.3	13.60	1052	6.68	Clear	97.8	
	1423	0.5	13.95	1059	6.32	Clear	50.6	
	1426	0.7	14.07	1059	2.85	Clear	13.0	2.10
	1429	0.9	14.58	1065	3.33	Clear	-3.5	2.26
	1432	1.1	14.14	1058	3.69	Clear	-11.8	2.38
	1435	1.3	13.90	1052	3.96	Clear	-17.0	2.45

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.50 **Sample DTW:** 17.44

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: N
Well Integrity: OK Well Tag: X

Signature: B. Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-2

Date Purged: 2/22/18 | Start (2400hr): ~~0750~~ 0820 | End (2400hr): _____
Date Sampled: 2/22/18 | Sample Time (2400hr): 0830
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 18.02
Depth to Water (ft): 17.46
Water Column Height (ft): .56
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µs	pH	Color	O.R.P.	D.O. mg/L
2/22/18	~~0750~~ 0800	0.0	10.46	822	6.81	Clear	70.7	8.89
	0813	0.3	12.77	935	6.96	Clear	64.6	3.72
	0816	0.5	13.26	971	6.97	Clear	62.0	3.19
	0819	0.7	13.30	993	6.95	Clear	57.3	2.90
	0822	0.9	13.25	1001	7.01	Clear	55.1	2.80
	0825	1.1	13.08	1009	7.02	Clear	53.1	2.67
	0828	1.3	13.58	1017	7.04	Clear	52.4	2.69

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 17.80 **Sample DTW:** 17.50

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-3

Date Purged: 2/22/18 | Start (2400hr): 0855 | End (2400hr): _____
Date Sampled: _____ | Sample Time (2400hr): ~~0855~~ 0920
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 19.44
Depth to Water (ft): 17.29
Water Column Height (ft): 2.15
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	0856	0.0	13.21	1479	7.07	Clear	59.3	10.55
	0901	0.3	14.46	1550	7.33	Clear	55.1	6.34
	0904	0.5	14.49	1541	7.24	Clear	54.3	5.74
	0907	0.7	14.46	1518	7.19	Clear	53.9	5.53
	0910	0.9	14.46	1510	7.18	Clear	53.7	5.56
	0913	1.1	14.50	1501	7.17	Clear	53.3	5.57
	0916	1.3	14.42	1484	7.16	Clear	52.9	5.23

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.00 **Sample DTW:** 17.32

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: OK Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-4

Date Purged: 2/22/18 Start (2400hr): 0947 End (2400hr): _____
Date Sampled: _____ Sample Time (2400hr): 1010
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.47
Depth to Water (ft): 16.89
Water Column Height (ft): 1.58 Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µs	pH	Color	O.R.P.	DO mg/L
2/22/18	0948	0.10	12.21	1135	7.15	Clear	57.5	
	0953	0.3	13.57	1211	7.39	Clear	50.8	6.32
	0956	0.5	13.42	1219	7.29	Clear	48.6	6.12
	0959	0.7	13.63	1244	7.26	Clear	47.4	5.92
	1002	0.9	13.75	1260	7.24	Clear	46.9	5.86
	1005	1.1	13.74	1280	7.22	Clear	46.3	5.78
	1008	1.3	13.93	1305	7.21	Clear	46.2	5.71

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 18.40 **Sample DTW:** 16.94

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: BS Schoenneman Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185750037
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-5

Date Purged: _____ Start (2400hr): _____ End (2400hr): _____
Date Sampled: _____ Sample Time (2400hr): _____
Sample Type: Groundwater Low-Flow Used? _____

Casing Diameter: 2" _____ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): _____
Depth to Water (ft): Dry
Water Column Height (ft): _____ Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp	Conductivity	pH	Color	O.R.P.

NO SAMPLE

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____
Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: _____ **Sample DTW:** _____

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes _____ **No** _____
Well Pad Condition: _____ Well Casing Condition: _____
Well Vault Condition: _____ Seal Present?: _____ Bolts Present?: _____
Well Integrity: _____ Well Tag: _____

Signature:

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-6

Date Purged: 2/22/18 | Start (2400hr): 1043 | End (2400hr): _____
Date Sampled: 2/22/18 | Sample Time (2400hr): 1110
Sample Type: Groundwater | Low-Flow Used? X

Casing Diameter: 2" V | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 19.23
Depth to Water (ft): 16.45
Water Column Height (ft): 2.78 | Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	1044	0.0	13.30	2026	5.35	clear	-27.6	2.41
	1049	0.3	14.41	1921	5.42	clear	-27.5	1.52
	1052	0.5	14.92	1793	5.52	clear	-24.2	1.25
	1055	0.7	14.89	1703	5.68	clear	-19.8	1.02
	1058	0.9	14.89	1682	5.71	clear	-16.9	0.98
	1101	1.1	14.93	1674	5.85	clear	-14.7	0.91
	1104	1.3	14.77	1679	5.89	clear	-14.0	0.88

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.00 | **Sample DTW:** 17.51

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: X
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman | Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-7

Date Purged: 2/22/18 | Start (2400hr): 1153 | End (2400hr): _____
Date Sampled: 2/22/18 | Sample Time (2400hr): 1200
Sample Type: Groundwater | Low-Flow Used? _____

Casing Diameter: 2" _____ 3" _____ 4" ✓
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.10
Depth to Water (ft): 16.24
Water Column Height (ft): 1.86 | Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	1134	0.0	13.84	4370	6.19	Grey	-0.5	
	1139	0.3	14.34	2924	6.57	Clear	-11.1	3.19
	1142	0.5	14.67	3001	6.64	Clear	-13.8	2.59
	1145	0.7	14.51	2237	6.69	Clear	-15.5	3.82
	1148	0.9	14.58	2014	6.69	Clear	-16.1	3.70
	1151	1.1	14.49	1942	6.69	Clear	-15.4	3.14
	1154	1.3	14.72	1927	6.72	Clear	-15.5	2.86

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 18.00 **Sample DTW:** 16.40

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes _____ No _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: Bad | Seal Present?: NO | Bolts Present?: No
Well Integrity: OK | Well Tag: NO

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-8

Date Purged: 2/22/18 | Start (2400hr): 1305 | End (2400hr): _____
Date Sampled: 2/22/18 | Sample Time (2400hr): 1330
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 26.75
Depth to Water (ft): 16.58
Water Column Height (ft): 10.17
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	D.O. mg/L
2/22/18	1306	0.0	13.63	1302	7.18	Grey	-174.8	8.31
	1311	0.3	15.85	1731	7.04	clear	-150.7	1.67
	1314	0.5	16.12	1740	6.94	Clear	-141.0	1.53
	1317	0.7	16.13	1740	6.92	Clear	-139.3	1.48
	1320	0.9	16.25	1742	6.91	Clear	-137.3	1.43
	1323	1.1	16.28	1728	6.92	Clear	-136.5	1.37
	1326	1.3	16.10	1707	6.90	Clear	-136.2	1.35

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 26.00 **Sample DTW:** 16.40

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter
	✓

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185750037
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-9

Date Purged: 2/22/18 Start (2400hr): 1352 End (2400hr): _____
Date Sampled: 2/22/18 Sample Time (2400hr): 1415
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 21.94
Depth to Water (ft): 16.69
Water Column Height (ft): 5.25
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	1355	0.0	13.84	1437	7.38	clear	-139.3	4.37
	1358	1.3	15.26	1545	7.42	clear	-136.9	1.35
	1401	1.5	15.07	1541	7.30	clear	-133.0	1.16
	1404	1.7	15.03	1538	7.23	clear	-130.7	0.99
	1407	1.9	15.13	1539	7.20	clear	-129.2	0.93
	1410	2.1	15.29	1544	7.19	clear	-128.1	0.87
	1413	2.3	15.11	1538	7.17	clear	-127.5	0.85

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 21.40 **Sample DTW:** 16.70

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman Page _____ of _____

Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185750037
Lab: TestAmerica
Well ID: MW-10

Date Purged: 2/22/18 Start (2400hr): 1444 End (2400hr): _____
Date Sampled: 2/22/18 Sample Time (2400hr): 1510
Sample Type: Groundwater Low-Flow Used? _____

Casing Diameter: 2" _____ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 23.05
Depth to Water (ft): 17.15
Water Column Height (ft): 5.92
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	1445	0.0	14.30	1685	7.52	Grey	-125.5	6.56
	1450	0.3	15.70	1794	7.30	Clear	-113.4	1.98
	1453	0.5	15.84	1807	7.20	Clear	-108.7	1.74
	1456	0.7	16.22	1826	7.14	Clear	-105.2	1.54
	1459	0.9	15.82	1807	7.10	Clear	-102.8	1.42
	1502	1.1	15.97	1815	7.09	Clear	-101.6	1.31
	1505	1.3	15.92	1813	7.08	Clear	-100.6	1.26

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 23.00 **Sample DTW:** 17.07

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: _____
Well Integrity: OK Well Tag: X

Signature: B Schoenneman

Page _____ of _____

Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185750037
Lab: TestAmerica
Well ID: MW-11

Date Purged: 2/22/18 Start (2400hr): 1533 End (2400hr): _____
Date Sampled: 2/22/18 Sample Time (2400hr): 1600
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 22.59
Depth to Water (ft): 16.93
Water Column Height (ft): 5.66
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	D.O. mg/L
2/22/18	1534	0.0	13.97	1207	7.66	Clear	-136.5	
	1539	0.3	15.00	1230	7.53	Clear	-127.2	4.90
	1542	0.5	14.94	1239	7.36	Clear	-118.2	4.46
	1545	0.7	14.87	1257	7.31	Clear	-113.2	4.29
	1548	0.9	14.82	1259	7.26	Clear	-108.9	4.14
	1551	1.1	14.87	1261	7.24	Clear	-106.1	4.11
	1554	1.3	14.75	1255	7.22	Clear	-104.1	4.04

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 22.00 **Sample DTW:** 16.97

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: _____
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185750037
Lab: TestAmerica
Well ID: MW-12

Date Purged: 2/22/18 Start (2400hr): 1621 End (2400hr): _____
Date Sampled: 2/22/18 Sample Time (2400hr): 1645
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 21.70
Depth to Water (ft): 15.67
Water Column Height (ft): 6.03
Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
2/22/18	1622	0.0	11.27	1233	7.59	Clear	-131.7	
	1627	0.3	13.39	1388	7.47	Clear	-125.4	5.15
	1630	0.5	13.00	1389	7.36	Clear	-117.4	4.77
	1633	0.7	13.05	1392	7.55	Clear	-115.9	4.74
	1636	0.9	13.36	1404	7.33	Clear	-112.7	4.61
	1639	1.1	13.31	1405	7.31	Clear	-109.3	4.51
	1642	1.3	13.35	1411	7.30	Clear	-107.0	4.47

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 21.20 **Sample DTW:** 15.69

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)	Nitrate	
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: _____
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

Stantec

Work Request Form

Project Name: Former 7-Eleven Store No. 25821 **Date:** 6/5/18
Site Address: 1824 George Washington Way, Richland, Washington
Activity: Sampling of Monitoring Wells MW-1 through MW-12
Project No.: 185703911 **Task:** 700.0700
Project Manager: Paul Fairbairn
Business Unit Leader/Regional Manager: John Wainwright
Prepared by: Andrea Schweiter **Reviewed by:** **Submitted to:** B Schoenman

WORK DESCRIPTION:
1. Arrive onsite and check in with Subway Restaurant manager and contact Paul Fairbairn.
2. Review HASP, conduct Health and Safety briefing and perform Site Walk to determine any traffic flow.
3. Open wells shown on attached table and let groundwater levels equilibrate.
4. Inspect well conditions note if any well needs repair.
5. Gauge all site wells following gauging order on Sampling Request Form.
6. Low-flow purge and sample wells following the sampling order provided.
7. Take a drum for purge water. Store purge water in drums onsite, make sure they are labeled properly and secured.
8. Take inventory of all waste drums generated by Stantec at the site, and mark locations on site plan.
9. Fill Out Equipment Billing Sheet for all equipment used on the job and attach with field notes
10. Call or text Paul Fairbairn in the office prior to leaving the site.
11. Turn in field notes to Andrea Schweiter ASAP

ANALYTICAL REQUIREMENTS:	BOTTLES:	EQUIPMENT NEEDED:
• NWTPH-Gx	• 3-HCl VOAs	H&S plan
• BTEX, EDC, MTBE(8260)	• 3-HCl VOAs	Safety Equipment
• EDB (8011)	• 3-HCl VOAs	Delineators
• Total Lead (200.8)	• 1-250mL poly w/HNO3	Test America Cooler with bottles
• NWTPH-Dx	• 2-1L Ambers unpreserved or preserved	Low-Flow Purging/Sampling Equipment
• Total Naphthalenes (8270)	• 2-250mL Ambers Unpreserved	Oil/Water Interface Probe
		Disposable bailers/ Rope
		Peristaltic Pump & Tubing
		Drum and labels

ESTIMATED HOURS TO COMPLETE:

Billing Title	Billing Category	Authorized Hours to Complete	Task No.
Field Tech	Regular - Direct Labor	14 hours + 7 hours Travel	700.0700
Equipment Form	Regular - Direct Labor		700.0700
Bottle Order	Regular - Direct Labor	0.5	700.0115
	Total Hours	**21.5**	

AUTHORIZATION: **COMPLETED:** 6/7/18

Stantec

Site Visitation Report

Project Name: Former 7-Eleven Store No. 25821

Name(s): Brian Schoenneman Date: 6/5/18 Time of Arrival Call-In: 1112

Arrival Time: 1110 Departure Time: 1510 Time of Departure Call-In:

Weather Conditions: (SUN) CLOUDY RAIN SNOW Temperature: 70 F

DRUM INVENTORY:

1	WATER		CARBON	TOTAL OPEN TOP	
	SOIL		EMPTY	TOTAL BUNG TOP	1

Please take a picture of anything not clearly labeled

HEALTH AND SAFETY ASSESSMENT:

Traffic and delineation	HASP and hospital directions
PPE	First aid kit
Weather/Cold stress	Fire extinguisher
Slips, trips, falls	Proper lifting of heavy items
Proper tools for each task	Bottle handling/glassware

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES:

Did Site health + Safety assessment. Initiated on RPS-2 5day Permit to Work. Gauged DTW/DTB of all 12 Wells onsite MW-5 is DRY.

Calibrated YSI 556

Purged + Collected samples from MW-4 + MW-11

Site Visitation Report

Project Name: Former 7-Eleven Store No. 25821

Name(s): Brian Schoenneman Date: 6/6/18 Time of Arrival Call-In: 0700

Arrival Time: 0646 Departure Time: 1548 Time of Departure Call-In: 1548

Weather Conditions: (SUN) CLOUDY RAIN SNOW Temperature: 87 F high

DRUM INVENTORY:

1	WATER		CARBON	TOTAL OPEN TOP	
	SOIL		EMPTY	TOTAL BUNG TOP	1

Please take a picture of anything not clearly labeled

HEALTH AND SAFETY ASSESSMENT:

Traffic and delineation	HASP and hospital directions
PPE	First aid kit
Weather/Cold stress	Fire extinguisher
Slips, trips, falls	Proper lifting of heavy items
Proper tools for each task	Bottle handling/glassware

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES:

Did site health + Safety assessment. Annotated RMS-2 Calibrated YSI 556.
Purged + Collected samples for the Remaining 9 Wells on site. All Wells have Good recharge.

Was able to add all Purge Water to the drum left onsite in February.

6/7/18 Packed all 6 Coolers in fresh ice. Drove to FedEx at SeaTac Airport and Shipped them to T.A. Nashville.

Stantec

Groundwater Gauging Form

6/5/18

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911 **Task:** 700.0700
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman

Well Number	Gauge Order	Sample Order	Analyses	Time	DTW (ft.)	DTB (ft.)	Sample? (Y/N)	Comments (Please Note Condition of Well)
MW-1	1	1	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	1152	16,68	19,73		
MW-2	2	2	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1155	16,78	18,30		
MW-3	3	3	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1201	16,74	19,50		
MW-4	4	4	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1310	16,39	18,47	X	
MW-5	5	5	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1204	—	16,47		DRY
MW-6	6	6	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1207	15,90	19,26		
MW-7	7	7	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1210	15,71	18,108		
MW-8	8	8	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1213	15,81	26,83		
MW-9	9	9	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1216	16,08	21,91		
MW-10	10	10	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1220	16,62	23,14		
MW-11	11	11	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1226	16,40	22,61	Y	
MW-12	12	12	~~NWTPH-Gx,BTEX, EDC, MTBE(8260),~~ EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes ~~(8270)~~	1230	15,09	21,72		

Estimated Gallons Purged:

NOTES:

6/5/18 YSI 556 Calibration pH 4.00 buffer 3.71/4.00 pH 7.00 buffer 7.47/7.00
Conductivity 1413 µS buffer 1639/1413 µS ORP @ 20°C/223 mV 215.7/223
D.O. @ 1012.53 HPa x .75 = 759.5775 10.90/10.31 mg/L

6/6/18 YSI 556 Calibration pH 4.00 buffer 4.53/4.00 pH 7.00 buffer 6.64/7.00
Conductivity 1413 µS buffer 1305/1413 ORP @ 18°C/225 mV 227.2/225
D.O. @ 1015.92 HPa x .75 = 761.94 mm Hg 10.69/10.03 mg/L

DTP: Depth to Free Product (FP or NAPH) Below TOC
DTW: Depth to Groundwater Below TOC
DTB: Depth to Bottom of Well Casing Below TOC

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-5

Date Purged: NO Purge | Start (2400hr): _____ | End (2400hr): _____
Date Sampled: NO Sample | Sample Time (2400hr): _____
Sample Type: Groundwater | Low-Flow Used? _____

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 16.49
Depth to Water (ft): 16.49
Water Column Height (ft): Dry | Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp	Conductivity	pH	Color	O.R.P.

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____
Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: _____ **Sample DTW:** _____

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		
Purging Equipment:		**Sampling Equipment:**
Geotech Peristaltic Pump		YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes _____ **No** _____
Well Pad Condition: _____ | Well Casing Condition: _____
Well Vault Condition: _____ | Seal Present?: _____ | Bolts Present?: _____
Well Integrity: _____ | Well Tag: _____

Signature:

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-4

Date Purged: 6/5/18 | Start (2400hr): 1329 | End (2400hr): _____
Date Sampled: 6/5/18 | Sample Time (2400hr): 1400
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 18.49
Depth to Water (ft): 16.39
Water Column Height (ft): 2.10
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity @25	pH	Color	O.R.P.	DO mg/L
6/5/18	1330	0.0	18.19	914	8.65	Clear	150.6	6.52
	1335	0.3	16.87	909	9.26	Clear	131.8	5.40
	1338	0.5	16.74	915	9.17	Clear	126.1	5.22
	1341	0.7	16.60	919	9.79	Clear	113.3	5.14
	1344	1.0	16.64	919	9.82	Clear	109.1	5.02
	1347	1.3	16.73	920	9.84	Clear	106.5	5.06
	1350	1.5	16.86	919	9.84	Clear	104.3	5.00

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 18.4 **Sample DTW:** 16.44

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter
	✓

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: X

Signature: B. Schoenneman

Page _____ of _____

Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185703911
Lab: TestAmerica
Well ID: MW-11

Date Purged: 6/5/18 Start (2400hr): 1424 End (2400hr): 1445
Date Sampled: 6/5/18 Sample Time (2400hr): 1455
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" ____ 4" ____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 22.61
Depth to Water (ft): 16.40
Water Column Height (ft): 6.21
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity NS	pH	Color	O.R.P.	DO mg/L
6/5/18	1425	0.0	19.49	910	9.46	Clear	115.0	2.40
	1430	0.3	18.86	888	9.59	Clear	113.7	1.27
	1435	0.5	18.73	885	9.71	Clear	110.4	1.22
	1436	0.7	18.61	882	9.67	Clear	108.7	1.21
	1439	1.0	18.73	886	9.71	Clear	107.1	1.15
	1442	1.3	18.61	883	9.71	Clear	105.3	1.17
	1445	1.5	18.83	888	9.74	Clear	103.1	1.16

Calculated Variance of Final Three Samples:
Temp: ____ **Conductivity:** ____ **pH:** ____ **Color:** ____ **O.R.P.:** ____

Acceptable Variance Limits:
Temp: ____ **Conductivity:** ____ **pH:** ____ **Color:** ____ **O.R.P.:** ____

Depth to Purge Intake During Purge: 16.00 **Sample DTW:** 16.47

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** ____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

Page ____ of ____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-7

Date Purged: 6/6/18 | Start (2400hr): 0723 | End (2400hr): 0744
Date Sampled: 6/6/18 | Sample Time (2400hr): 0755
Sample Type: Groundwater | Low-Flow Used? ____

Casing Diameter: 2" ____ 3" ____ 4" ✓
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.08
Depth to Water (ft): 15.71
Water Column Height (ft): 2.37 | Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	0724	0.0	17.74	2021	7.41	Clear	143.1	4.59
	0729	0.3	16.48	1480	7.80	Clear	131.2	1.59
	0732	0.5	16.50	1310	8.02	Clear	131.1	1.54
	0735	0.7	16.51	1261	8.08	Clear	122.3	1.65
	0738	1.0	16.51	1193	8.16	Clear	99.0	1.77
	0741	1.3	16.49	1155	8.29	Clear	78.2	1.77
	0744	1.5	16.53	1142	8.37	Clear	65.1	1.78

Calculated Variance of Final Three Samples:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____
Acceptable Variance Limits:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____

Depth to Purge Intake During Purge: 18.00 | **Sample DTW:** 15.84

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No ____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: NOT OK | Seal Present?: N | Bolts Present?: N
Well Integrity: OK | Well Tag: ✓

Signature: B Schoenneman

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-6

Date Purged: 6/6/18 | Start (2400hr): 0815 | End (2400hr): 0836
Date Sampled: 6/6/18 | Sample Time (2400hr): 0845
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 19.26
Depth to Water (ft): 15.90
Water Column Height (ft): 3.36
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	0816	0.0	18.07	3036	8.39	Grey	109.8	2.10
	0821	0.3	17.13	1890	8.65	Clear	108.5	0.37
	0824	0.5	17.12	1655	8.67	Clear	106.7	0.38
	0827	0.7	17.08	1786	8.82	Clear	83.1	0.38
	0830	1.0	17.07	1343	9.00	Clear	55.6	0.39
	0833	1.3	17.05	1376	9.28	Clear	29.7	0.41
	0836	1.5	17.07	1247	9.46	Clear	13.3	0.43

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.00 **Sample DTW:** 16.39

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-12

Date Purged: 6/6/18 | Start (2400hr): 0906 | End (2400hr): 0927
Date Sampled: 6/6/18 | Sample Time (2400hr): 0935
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 21.72
Depth to Water (ft): 15.09
Water Column Height (ft): 6.63
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	0907	0.0	17.17	1089	9.42	Clear	73.1	5.55
	0912	0.3	16.91	1094	9.55	Clear	74.3	5.28
	0915	0.5	16.78	1103	9.57	Clear	75.2	5.35
	0918	0.7	16.90	1103	9.64	Clear	75.7	5.26
	0921	1.0	16.85	1093	9.68	Clear	76.2	5.18
	0924	1.3	16.82	10.87	9.70	Clear	76.8	5.18
	0927	1.5	16.89	10.84	9.69	Clear	77.6	5.09

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 21.00 **Sample DTW:** 15.11

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-8

Date Purged: 6/6/18 | Start (2400hr): 0957 | End (2400hr): 1018
Date Sampled: 6/6/18 | Sample Time (2400hr): 1025
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 26.83
Depth to Water (ft): 15.81
Water Column Height (ft): 11.02
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	0958	0.0	19.25	1104	9.27	Grey	110.1	4.23
	1003	0.3	18.00	990	9.57	Clear	104.2	1.03
	1006	0.5	17.87	987	9.53	Clear	101.6	1.02
	1009	0.7	17.77	983	9.56	Clear	99.6	1.12
	1012	1.0	17.86	986	9.61	Clear	97.8	1.14
	1015	1.3	17.78	986	9.57	Clear	96.8	1.10
	1018	1.5	17.72	987	9.55	Clear	96.5	1.08

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 26.80 **Sample DTW:** 15.83

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter
	✓

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-9

Date Purged: 6/6/18 Start (2400hr): 1043 End (2400hr): 1109
Date Sampled: 6/6/18 Sample Time (2400hr): 1110
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 21.91
Depth to Water (ft): 16.08
Water Column Height (ft): 5.83 Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity MS	pH	Color	O.R.P.	DO mg/L
6/6/18	1044	0.0	18.39	1020	9.23	Clear	134.9	3.79
	1049	0.3	18.17	1007	9.51	Clear	121.5	2.79
	1052	0.5	18.10	1000	9.53	Clear	116.2	2.81
	1055	0.7	18.02	987	9.73	Clear	109.8	2.88
	1058	1.0	18.10	973	9.85	Clear	103.6	2.75
	1101	1.3	17.94	961	9.90	Clear	101.4	2.78
	1104	1.5	17.98	958	9.97	Clear	98.7	2.82

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____
Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: 21.50 **Sample DTW:** 16.09

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

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Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185703911
Lab: TestAmerica
Well ID: MW-10

Date Purged: 6/6/18 Start (2400hr): 1132 End (2400hr): 1153
Date Sampled: 6/6/18 Sample Time (2400hr): 1200
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" ____ 4" ____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 23.14
Depth to Water (ft): 16.62
Water Column Height (ft): 6.52
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity NS	pH	Color	O.R.P.	DO mg/L
6/6/18	1133	0.0	20.57	1182	9.70	Clear	103.0	5.12
	1138	0.3	18.44	1107	9.94	clear	99.7	0.71
	1141	0.5	18.48	1108	10.05	Clear	95.6	0.58
	1144	0.7	18.40	1108	10.09	clear	93.6	0.53
	1147	1.0	18.45	1111	10.15	Clear	90.2	0.55
	1150	1.3	18.38	1109	10.19	Clear	88.4	0.64
	1153	1.5	18.47	1112	10.19	Clear	86.7	0.56

Calculated Variance of Final Three Samples:
Temp: ____ **Conductivity:** ____ **pH:** ____ **Color:** ____ **O.R.P.:** ____

Acceptable Variance Limits:
Temp: ____ **Conductivity:** ____ **pH:** ____ **Color:** ____ **O.R.P.:** ____

Depth to Purge Intake During Purge: 23.10 **Sample DTW:** 16.63

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** ____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

Page ____ of ____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-3

Date Purged: 6/6/18 | Start (2400hr): 1305 | End (2400hr): 1321
Date Sampled: 6/6/18 | Sample Time (2400hr): 1330
Sample Type: Groundwater | Low-Flow Used? ✓

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 19.50
Depth to Water (ft): 16.74
Water Column Height (ft): 2.76
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	1306	0.0	18.19	657	10.01	Clear	65.3	5.70
	1311	0.3	17.65	540	10.05	clear	68.9	4.23
	1314	0.5	17.59	527	10.09	clear	73.1	4.51
	1317	0.7	17.64	528	10.10	Clear	76.3	4.50
	1320	1.0	17.68	533	10.08	Clear	78.6	4.50
	1323	1.3	17.63	532	10.07	clear	80.4	4.60
	1326	1.5	17.67	539	10.06	clear	82.2	4.50

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____
Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: 19.00 **Sample DTW:** 16.75

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: _____
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-2

Date Purged: 6/6/18 Start (2400hr): 1354 End (2400hr): 1415
Date Sampled: 6/6/18 Sample Time (2400hr): 1425
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ____ 3" ____ 4" ____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.30
Depth to Water (ft): 16.78
Water Column Height (ft): 1.52 Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity NS	pH	Color	O.R.P.	D.O. mg/L
6/6/18	1355	0.0	17.87	762	9.86	Clear	114.4	3.16
	1400	0.3	17.69	752	9.83	Clear	108.9	1.14
	1403	0.5	17.50	737	9.81	Clear	105.9	1.17
	1406	0.7	17.43	727	9.78	Clear	104.9	1.36
	1409	1.0	17.50	725	9.78	Clear	104.4	1.41
	1412	1.3	17.66	721	9.77	Clear	103.7	1.62
	1415	1.5	17.52	723	9.77	Clear	105.3	1.92

Calculated Variance of Final Three Samples:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____

Acceptable Variance Limits:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____

Depth to Purge Intake During Purge: 18.00 **Sample DTW:** 16.78

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No ____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: ~~Y~~ Bolts Present?: Y
Well Integrity: OK Well Tag: ~~Y~~

Signature: B Schoenneman

Page ____ of ____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-1

Date Purged: 6/6/18 | Start (2400hr): 1452 | End (2400hr): 1513
Date Sampled: 6/6/18 | Sample Time (2400hr): 1520
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 19.73
Depth to Water (ft): 16.68
Water Column Height (ft): 3.05 | Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
6/6/18	1453	0.0	22.39	773	9.88	Clear	116.2	3.39
	1458	0.3	21.62	773	9.82	Clear	116.1	1.87
	1501	0.5	20.91	754	9.74	Clear	116.7	1.94
	1504	0.7	20.81	742	9.74	Clear	116.2	2.26
	1507	1.0	20.96	737	9.74	Clear	115.5	2.44
	1510	1.3	20.75	726	9.72	Clear	114.9	2.71
	1513	1.5	20.84	724	9.72	Clear	114.1	2.85

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.00 | **Sample DTW:** 16.68

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

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TestAmerica Nashville

Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brian Schoenneman	Lab PM: Leah Klingensmith	Carrier Tracking No(s):
Client Contact: Paul Fairbairn	Phone: 916-213-3205	E-Mail: Leah.Klingensmith@testamericainc.com	
Company: Stantec Consulting Corp.			
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:		
City: Bellevue	TAT Requested (days): Standard		
State, Zip: WA, 98004-1465			
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested		
Email: paul.fairbairn@stantec.com	WO #:		
Project Name: 2Q18 GWM 25821	Project #: 185703911		
Site: 25821 Richland	SSOW#:		

COC No:

Page: Page 1 of 1

Job #: Store No. 25821

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)
Other:	

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	BTEX, EDC, MTBE (8260)	EDB (8011)	Total Lead (200.8)	NWTPH-Dx	Naphthalene, 1-Methyl Naphthalene, 2-Methyl Naphthalene (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
MW-1	6/6/18	1520	G	W			X	X	X	X	X	X		
MW-2	6/6/18	1425	G	W			X	X	X	X	X	X		
MW-3	6/6/18	1330	G	W			X	X	X	X	X	X		
MW-4	6/5/18	1400	G	W			X	X	X	X	X	X		
~~MW-5~~ DUP			G	W			~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		NO Sample Drilled
MW-6	6/6/18	0845	G	W			X	X	X	X	X	X		
MW-7	6/6/18	0755	G	W			X	X	X	X	X	X		
MW-8	6/6/18	1025	G	W			X	X	X	X	X	X		
MW-9	6/6/18	1110	G	W			X	X	X	X	X	X		
MW-10	6/6/18	1200	G	W			X	X	X	X	X	X		
MW-11	6/5/18	1455	G	W			X	X	X	X	X	X		
MW-12	6/6/18	0935	G	W			X	X	X	X	X	X		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Brian Schoenneman	Date/Time: 6/7/18 1200	Company Stantec	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Stantec

Work Request Form

Project Name: Former 7-Eleven Store No. 25821 **Date:** 9/12/18
Site Address: 1824 George Washington Way, Richland, Washington
Activity: Sampling of Monitoring Wells MW-1 through MW-12
Project No.: 185703911 **Task:** 700.0700
Project Manager: Paul Fairbairn
Business Unit Leader/Regional Manager: John Wainwright
Prepared by: Andrea Schweiter **Reviewed by:** **Submitted to:** BSchoenemann

WORK DESCRIPTION:

1. Arrive onsite and check in with Subway Restaurant manager and contact Paul Fairbairn.
2. Review HASP, conduct Health and Safety briefing and perform Site Walk to determine any traffic flow.
3. Open wells shown on attached table and let groundwater levels equilibrate.
4. Inspect well conditions note if any well needs repair.
5. Gauge all site wells following gauging order on Sampling Request Form.
6. Low-flow purge and sample wells following the sampling order provided.
7. Take a drum for purge water. Store purge water in drums onsite, make sure they are labeled properly and secured.
8. Take inventory of all waste drums generated by Stantec at the site, and mark locations on site plan.
9. Fill Out Equipment Billing Sheet for all equipment used on the job and attach with field notes
10. Call or text Paul Fairbairn in the office prior to leaving the site.
11. Turn in field notes to Andrea Schweiter ASAP

ANALYTICAL REQUIREMENTS:	BOTTLES:	EQUIPMENT NEEDED:
• NWTPH-Gx	• 3-HCl VOAs	H&S plan
• BTEX, EDC, MTBE(8260)	• 3-HCl VOAs	Safety Equipment
• EDB (8011)	• 3-HCl VOAs	Delineators
• Total Lead (200.8)	• 1-250mL poly w/HNO3	Test America Cooler with bottles
• NWTPH-Dx	• 2-1L Ambers unpreserved or preserved	Low-Flow Purging/Sampling Equipment
• Total Naphthalenes (8270)	• 2-250mL Ambers Unpreserved	Oil/Water Interface Probe
		Disposable bailers/ Rope
		Peristaltic Pump & Tubing
		Drum and labels

ESTIMATED HOURS TO COMPLETE:

Billing Title	Billing Category	Authorized Hours to Complete	Task No.
Field Tech	Regular - Direct Labor	14 hours + 7 hours Travel	700.0700
Equipment Form	Regular - Direct Labor		700.0700
Bottle Order	Regular - Direct Labor	0.5	700.0115
	Total Hours	**21.5**	

AUTHORIZATION: **COMPLETED:** 9/13/18

Project Name: Former 7-Eleven Store No. 25821

Name(s): Brian Schoenneman   Date: 9/12 + 9/13/18   Time of Arrival Call-In: 9/12 - 0809 9/13 - 0625

Arrival Time: 0809 / 0625   Departure Time: 1536 / 1008   Time of Departure Call-In: 9/12 1536 9/13 - 1008

Weather Conditions: (SUN) CLOUDY RAIN SNOW   Temperature: 50°-70° F

DRUM INVENTORY:

/	WATER		CARBON	TOTAL OPEN TOP	
	SOIL		EMPTY	TOTAL BUNG TOP	1

Please take a picture of anything not clearly labeled

HEALTH AND SAFETY ASSESSMENT:

Traffic and delineation	HASP and hospital directions
PPE	First aid kit
Weather/Cold stress	Fire extinguisher
Slips, trips, falls	Proper lifting of heavy items
Proper tools for each task	Bottle handling/glassware

DESCRIPTION OF ACTIVITIES ONSITE AND NOTES:

9/12 Did site H&S evaluation initiated RMS-2 Checked in w/ Sandwich shop. Opened gauged 11 wells onsite. Purged + collected samples 7 wells onsite, MW-5 Dry. Purge H2O in drum in trash compound.

9/13 Finished purging + collecting samples in remaining 4 wells. Purge H2O in drum inside trash compound.

Packed samples drove them to Fed Ex Sea Tac + shipped them

Groundwater Gauging Form

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911 **Task:** 700.0700
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman

9/12/18

Well Number	Gauge Order	Sample Order	Analyses	Time	DTW (ft.)	DTB (ft.)	Sample? (Y/N)	Comments (Please Note Condition of Well)
MW-1	1	1	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0858	16.96	19.97		
MW-2	2	2	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0901	17.01	18.32		
MW-3	3	3	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0904	16.91	19.51		
MW-4	4	4	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0907	16.51	18.45		
MW-5	5	5	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0910	05.4	16.50		
MW-6	6	6	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0913	16.05	19.21		
MW-7	7	7	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0916	15.85	18.16		
MW-8	8	8	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0919	15.97	26.85		
MW-9	9	9	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0922	16.27	21.94		
MW-10	10	10	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0925	16.75	23.17		
MW-11	11	11	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0928	16.55	22.64		
MW-12	12	12	NWTPH-Gx,BTEX, EDC, MTBE(8260), EDB (8011), Total Lead (200.8), NWTPH-Dx, Total Naphthalenes (8270)	0931	15.26	21.65		

Estimated Gallons Purged:

NOTES:

9/12/18
YSI 556 Calibration PH 4.00 buffer 4.07/4.00 PH 7.00 buffer 6.91/7.00
Conductivity 1413 MS buffer 1412/1413 MS
ORP @ 17.39°C / 225 mv buffer 223.5/225 mV
D.O. @ 1012.53 hPa x .75 = 759.3975 mm Hg 9.57 / 9.99 mg/L

9/13/18
YSI 556 Calibration PH 4.00 buffer 4.50/4.00 PH 7.00 buffer 6.98/7.00
Conductivity 1413 MS buffer 1359/1413 MS
ORP @ 15.7°C / 226 mv buffer 225.7/226.0
DO @ 1012.53 hPa x .75 = 759.3975 mm Hg 9.05 / 10.07 mg/L

DTP: Depth to Free Product (FP or NAPH) Below TOC
DTW: Depth to Groundwater Below TOC
DTB: Depth to Bottom of Well Casing Below TOC

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-12

Date Purged: 9/13/18 | Start (2400hr): 0918 | End (2400hr): 0939
Date Sampled: 9/13/18 | Sample Time (2400hr): 0950
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 21.65
Depth to Water (ft): 15.26
Water Column Height (ft): 5.39
Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp C	Conductivity mS	pH	Color	O.R.P.	DO mg/L
9/13/18	0919	0.0	19.88	1108	7.42	clear	-56.9	3.53
	0924	0.3	19.73	1157	7.48	clear	9.4	2.84
	0927	0.5	20.04	1149	7.47	clear	37.1	2.81
	0930	0.7	20.08	1143	7.48	clear	46.0	2.79
	0933	0.9	20.19	1142	7.48	clear	52.8	2.77
	0936	1.1	20.20	1145	7.48	clear	56.0	2.79
	0939	1.3	20.21	1148	7.49	clear	61.1	2.78

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 21.00 **Sample DTW:** 15.29

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: X
Well Integrity: OK | Well Tag: Y

Signature: B. Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-6

Date Purged: 9/13/18 Start (2400hr): 0828 End (2400hr): 0849
Date Sampled: 9/13/18 Sample Time (2400hr): 0900
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 19.26
Depth to Water (ft): 16.05
Water Column Height (ft): 3.21 Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp °C	Conductivity MS	pH	Color	O.R.P.	DO mg/L
9/13/18	0829	0.0	20.21	1237	7.15	Clear	2.9	2.61
	0834	0.3	20.15	860	7.11	Clear	-53.6	0.57
	0837	0.5	20.18	800	7.15	Clear	-73.0	0.49
	0840	0.7	20.16	787	7.15	Clear	-79.9	0.45
	0843	0.9	20.14	792	7.16	Clear	-81.7	0.44
	0846	1.1	20.16	803	7.15	Clear	-83.0	0.44
	0849	1.3	20.12	819	7.15	Clear	-84.2	0.41

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____
Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: 19.00 **Sample DTW:** 16.39

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		
Purging Equipment:		**Sampling Equipment:**
Geotech Peristaltic Pump		YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____
Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: N Bolts Present?: N
Well Integrity: OK Well Tag: N

Signature: B Schoenneman Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-8

Date Purged: 9/13/18 | Start (2400hr): 0741 | End (2400hr): 0802
Date Sampled: 9/13/18 | Sample Time (2400hr): 0815
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 26.85
Depth to Water (ft): 15.97
Water Column Height (ft): 10.88 | Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp ℃	Conductivity MS	pH	Color	O.R.P.	
9/13/18	0742	0.0	19.90	1274	7.30	Clear	153.6	DO mg/L 2.27
	0744	0.3	19.42	1287	7.30	Clear	151.1	1.51
	0750	0.5	19.39	1291	7.30	Clear	150.8	1.33
	0753	0.7	19.40	1288	7.30	Clear	150.4	1.28
	0756	0.9	19.38	1285	7.31	Clear	150.2	1.27
	0759	1.1	19.48	1282	7.31	Clear	150.4	1.27
	0802	1.3	19.57	1276	7.32	Clear	150.6	1.28

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 26.00 | **Sample DTW:** 16.00

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: N | Bolts Present?: N
Well Integrity: OK | Well Tag: N

Signature: B. Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-9

Date Purged: 9/13/18 Start (2400hr): 0655 End (2400hr): 0716
Date Sampled: 9/13/18 Sample Time (2400hr): 0725
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" _____ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 21.94
Depth to Water (ft): 16.27
Water Column Height (ft): 5.67 Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp C	Conductivity mS	pH	Color	O.R.P.	DO mg/L
9/13/18	0656	0.0	19.44	939	7.35	Clear	158.0	1.90
	0701	0.3	19.65	942	7.33	Clear	154.5	2.19
	0704	0.5	19.78	938	7.34	Clear	153.1	2.24
	0707	0.7	19.83	933	7.35	Clear	152.5	2.31
	0710	0.9	19.87	927	7.37	Clear	152.1	2.57
	0713	1.1	19.79	924	7.38	Clear	152.0	2.72
	0716	1.3	19.68	920	7.38	Clear	152.0	2.82

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 21.00 **Sample DTW:** 16.27

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ **No** _____
Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: Y
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-3

Date Purged: 9/12/18 | Start (2400hr): 1449 | End (2400hr): 1510
Date Sampled: 9/12/18 | Sample Time (2400hr): 1520
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 19.51
Depth to Water (ft): 16.91
Water Column Height (ft): 2.60 | Actual Purge (gal): 13

Field Measurements

Date	Time	Volume	Temp °C	Conductivity mS	pH	Color	O.R.P.	DUPLE
9/12/18	1450	0.0	21.56	682	7.85	Clear	152.8	4.29
	1455	0.3	21.09	593	7.77	Clear	158.0	3.53
	1458	0.5	21.17	590	7.81	Clear	155.4	3.62
	1501	0.7	21.21	597	7.81	Clear	155.7	3.69
	1504	0.9	21.15	604	7.80	Clear	155.6	3.78
	1507	1.1	21.06	606	7.78	Clear	155.6	3.72
	1510	1.3	20.95	602	7.79	Clear	154.4	3.72

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 19.00 | **Sample DTW:** 16.92

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: N
Well Integrity: OK | Well Tag: Y

Signature: B Schoenneman

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Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185703911
Lab: TestAmerica
Well ID: MW-10

Date Purged: 9/12/18 Start (2400hr): 1403 End (2400hr): 1424
Date Sampled: 9/12/18 Sample Time (2400hr): 1435
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 23.17
Depth to Water (ft): 16.75
Water Column Height (ft): 6.42
Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp °C	Conductivity M	pH	Color	O.R.P.	DO mg/L
9/12/18	1404	0.0	23.18	1019	7.73	Clear	157.2	2.72
	1409	0.3	21.85	963	7.68	Clear	158.1	1.13
	1412	0.5	21.66	943	7.67	Clear	155.1	1.05
	1415	0.7	21.56	934	7.68	Clear	155.1	1.02
	1418	0.9	21.66	933	7.68	Clear	154.7	0.97
	1421	1.1	21.72	932	7.69	Clear	154.2	0.90
	1424	1.3	21.80	933	7.69	Clear	153.7	0.87

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 23.00 **Sample DTW:** 16.77

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: X
Well Integrity: OK Well Tag: X

Signature: B Schoenneman

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Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-2

Date Purged: 9/12/18 Start (2400hr): 1316 End (2400hr): 1339
Date Sampled: 9/12/18 Sample Time (2400hr): 1350
Sample Type: Groundwater Low-Flow Used? N

Casing Diameter: 2" ✓ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.32
Depth to Water (ft): 17.01
Water Column Height (ft): 1.31 Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
9/12/18	1317	0.0	21.62	611	7.80	Clear	152.8	5.73
	1322	0.3	21.16	601	7.73	Clear	154.8	4.87
	1327	0.5	21.08	603	7.74	Clear	154.9	4.74
	1330	0.7	21.04	605	7.74	Clear	154.9	4.77
	1333	0.9	21.03	607	7.74	Clear	155.6	4.63
	1336	1.1	20.92	607	7.73	Clear	157.2	4.66
	1339	1.3	21.00	608	7.73	Clear	157.2	4.45

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____
Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 18.00 **Sample DTW:** 17.05

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____
Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: Y Bolts Present?: N
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-1

Date Purged: 9/12/18 | Start (2400hr): 1235 | End (2400hr): 1256
Date Sampled: 9/12/18 | Sample Time (2400hr): 1310
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 19.97
Depth to Water (ft): 16.96
Water Column Height (ft): 3.01 | Actual Purge (gal): 1.3

Field Measurements

Date	Time	Volume	Temp °C	Conductivity µS	pH	Color	O.R.P.	DO mg/L
9/12/18	1236	0.0	19.83	614	7.64	Clear	115.2	6.29
	1241	0.3	19.56	583	7.55	Clear	138.0	6.13
	1244	0.5	19.26	580	7.58	Clear	141.1	6.05
	1247	0.7	19.64	582	7.60	Clear	143.4	5.91
	1250	0.9	19.63	589	7.62	Clear	145.1	5.77
	1253	1.1	19.58	590	7.61	Clear	147.0	5.67
	1256	1.3	19.64	596	7.62	Clear	148.4	5.46

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 16.00 | **Sample DTW:** 16.97

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: BS Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821
Project Manager: Paul Fairbairn
Field Technician: Brian Schoenneman

Project No.: 185703911
Lab: TestAmerica
Well ID: MW-7

Date Purged: 9/12/18 Start (2400hr): 1144 End (2400hr): 1205
Date Sampled: 9/12/18 Sample Time (2400hr): 1215
Sample Type: Groundwater Low-Flow Used? Y

Casing Diameter: 2" ____ 3" ____ 4" ✓
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 18.16
Depth to Water (ft): 15.85
Water Column Height (ft): 2.31
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity mS	pH	Color	O.R.P.	DO mg/L
9/12/18	1145	0.0	20.85	1091	7.41	Clear	134.4	1.95
	1150	0.3	20.23	1088	7.40	Clear	61.6	1.04
	1153	0.5	20.18	1054	7.41	Clear	55.0	1.08
	1156	0.7	20.11	1026	7.45	Clear	42.4	1.13
	1159	0.9	20.10	1018	7.46	Clear	39.0	1.15
	1202	1.1	20.16	1022	7.47	Clear	37.8	1.17
	1205	1.3	20.20	1021	7.46	Clear	39.0	1.16

Calculated Variance of Final Three Samples:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____

Acceptable Variance Limits:
Temp: ____ Conductivity: ____ pH: ____ Color: ____ O.R.P.: ____

Depth to Purge Intake During Purge: 18.00 **Sample DTW:** 15.99

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No ____

Well Pad Condition: OK
Well Casing Condition: OK
Well Vault Condition: Poor
Seal Present?: N Bolts Present?: N
Well Integrity: OK
Well Tag: N

Signature: B. Schoenneman

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Stantec

Water Sample Field Data Sheet

Bellevue Office
FEBRUARY 2016

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-11

Date Purged: 9/12/18 | Start (2400hr): 1050 | End (2400hr): 1111
Date Sampled: 9/12/18 | Sample Time (2400hr): 1120
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ (0.17) | 3" _____ (0.38) | 4" _____ 0.67
Casing Volume (Gallons per foot):

Depth to Bottom (ft): 22.64
Depth to Water (ft): 16.55
Water Column Height (ft): 6.09
Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity mS	pH	Color	O.R.P.	DO mg/L
9/12/18	1057	0.0	21.47	1008	7.61	Clear	181.2	4.48
	1056	0.3	20.25	1017	7.63	Clear	181.7	1.89
	1059	0.5	20.36	1017	7.64	Clear	180.3	1.75
	1102	0.7	20.35	1016	7.64	Clear	179.4	1.71
	1105	0.9	20.40	1015	7.64	Clear	179.1	1.68
	1108	1.1	20.29	1014	7.64	Clear	178.9	1.65
	1111	1.3	20.26	1020	7.64	Clear	179.1	1.58

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 22.00 **Sample DTW:** 16.58

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: Y | Bolts Present?: Y
Well Integrity: OK | Well Tag: X

Signature: B Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 | **Project No.:** 185703911
Project Manager: Paul Fairbairn | **Lab:** TestAmerica
Field Technician: Brian Schoenneman | **Well ID:** MW-4

Date Purged: 9/12/18 | Start (2400hr): 1008 | End (2400hr): 1029
Date Sampled: 9/12/18 | Sample Time (2400hr): 1040
Sample Type: Groundwater | Low-Flow Used? Y

Casing Diameter: 2" ✓ | 3" _____ | 4" _____
Casing Volume (Gallons per foot): (0.17) | (0.38) | 0.67

Depth to Bottom (ft): 18.45
Depth to Water (ft): 16.15
Water Column Height (ft): 2.30 | Actual Purge (gal): 1.5

Field Measurements

Date	Time	Volume	Temp °C	Conductivity mS	pH	Color	O.R.P.	DO mg/L
9/4/18	1009	0.0	20.39	594	7.35	Clear	192.0	5.78
	1014	0.3	19.77	716	7.45	Clear	190.2	5.45
	1017	0.5	19.71	749	7.46	Clear	190.3	5.35
	1020	0.7	19.74	804	7.50	Clear	190.0	5.26
	1023	0.9	19.69	826	7.51	Clear	190.3	5.16
	1026	1.1	19.66	836	7.53	Clear	189.7	4.88
	1029	1.3	19.67	849	7.54	Clear	189.4	4.71

Calculated Variance of Final Three Samples:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Acceptable Variance Limits:
Temp: _____ Conductivity: _____ pH: _____ Color: _____ O.R.P.: _____

Depth to Purge Intake During Purge: 18.00 | **Sample DTW:** 16.53

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		

Purging Equipment:	Sampling Equipment:
Geotech Peristaltic Pump	YSI Meter

Flow Through Cell Disconnected Prior to Sample Collection?: Yes ✓ No _____

Well Pad Condition: OK | Well Casing Condition: OK
Well Vault Condition: OK | Seal Present?: N | Bolts Present?: Y
Well Integrity: OK | Well Tag: Y

Signature: B. Schoenneman

Page _____ of _____

Project Name: Former 7-Eleven Store No. 25821 **Project No.:** 185703911
Project Manager: Paul Fairbairn **Lab:** TestAmerica
Field Technician: Brian Schoenneman **Well ID:** MW-5

Date Purged: _____ Start (2400hr): _____ End (2400hr): _____
Date Sampled: _____ Sample Time (2400hr): _____
Sample Type: Groundwater Low-Flow Used? _____

Casing Diameter: 2" _____ 3" _____ 4" _____
Casing Volume (Gallons per foot): (0.17) (0.38) 0.67

Depth to Bottom (ft): 16.50
Depth to Water (ft): Dry
Water Column Height (ft): 0 Actual Purge (gal): _____

Field Measurements

Date	Time	Volume	Temp	Conductivity	pH	Color	O.R.P.

Dry Well no Sample

Calculated Variance of Final Three Samples:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Acceptable Variance Limits:
Temp: _____ **Conductivity:** _____ **pH:** _____ **Color:** _____ **O.R.P.:** _____

Depth to Purge Intake During Purge: _____ **Sample DTW:** _____

Quantity of Sample Vessel & Preservative:		Analyses:
NWTPH-Gx	NWTPH-Dx	
BTEX, EDC, MTBE (8260)	Total Naphthalenes (8270)	
EDB (8011)		
Total Lead (200.8)		
Purging Equipment:		**Sampling Equipment:**
Geotech Peristaltic Pump		YSI Meter

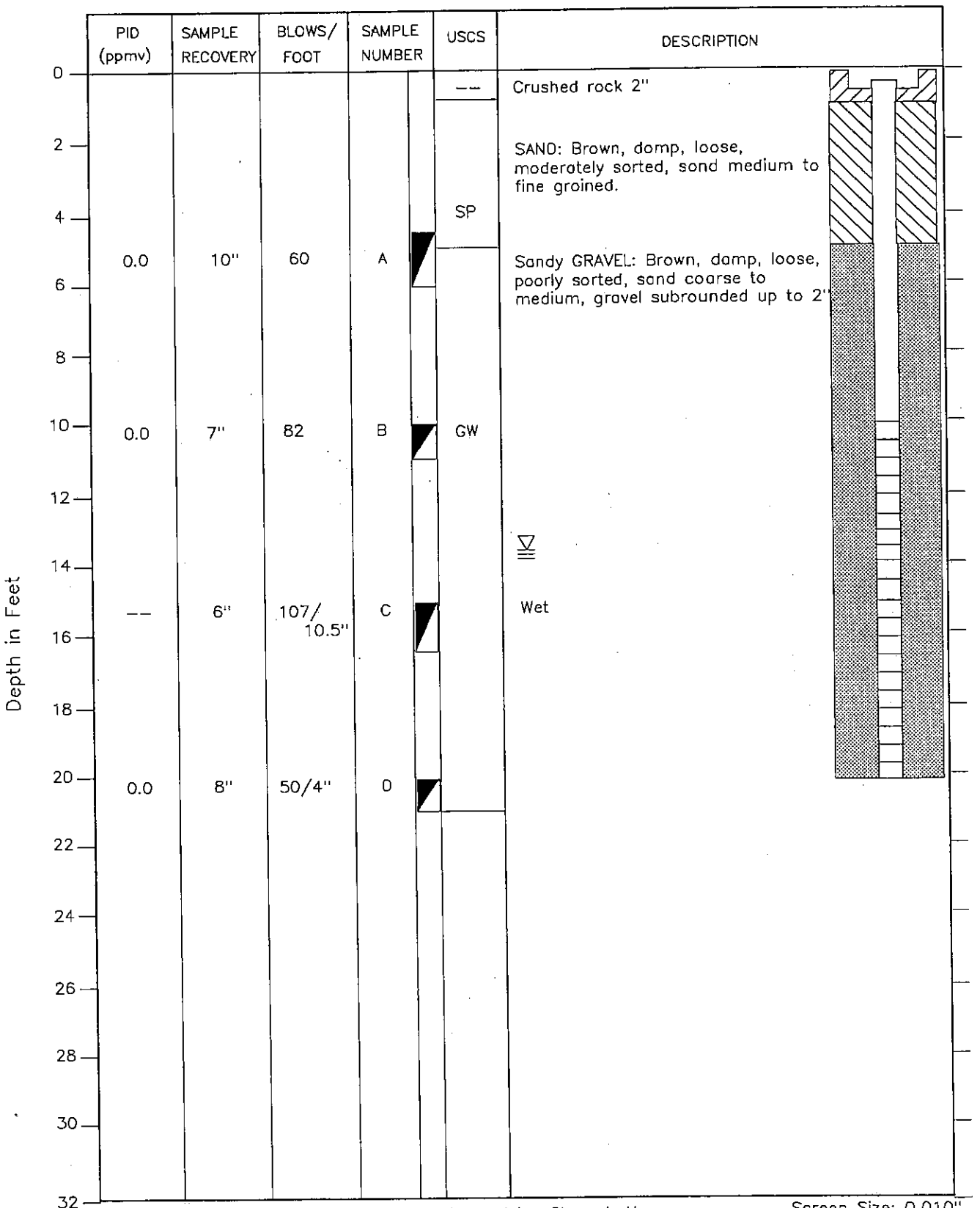
Flow Through Cell Disconnected Prior to Sample Collection?: Yes _____ **No** ✓

Well Pad Condition: OK Well Casing Condition: OK
Well Vault Condition: OK Seal Present?: N Bolts Present?: N
Well Integrity: OK Well Tag: Y

Signature: B Schoenneman 9/12/18 Page _____ of _____

Appendix E

Existing Boring Logs



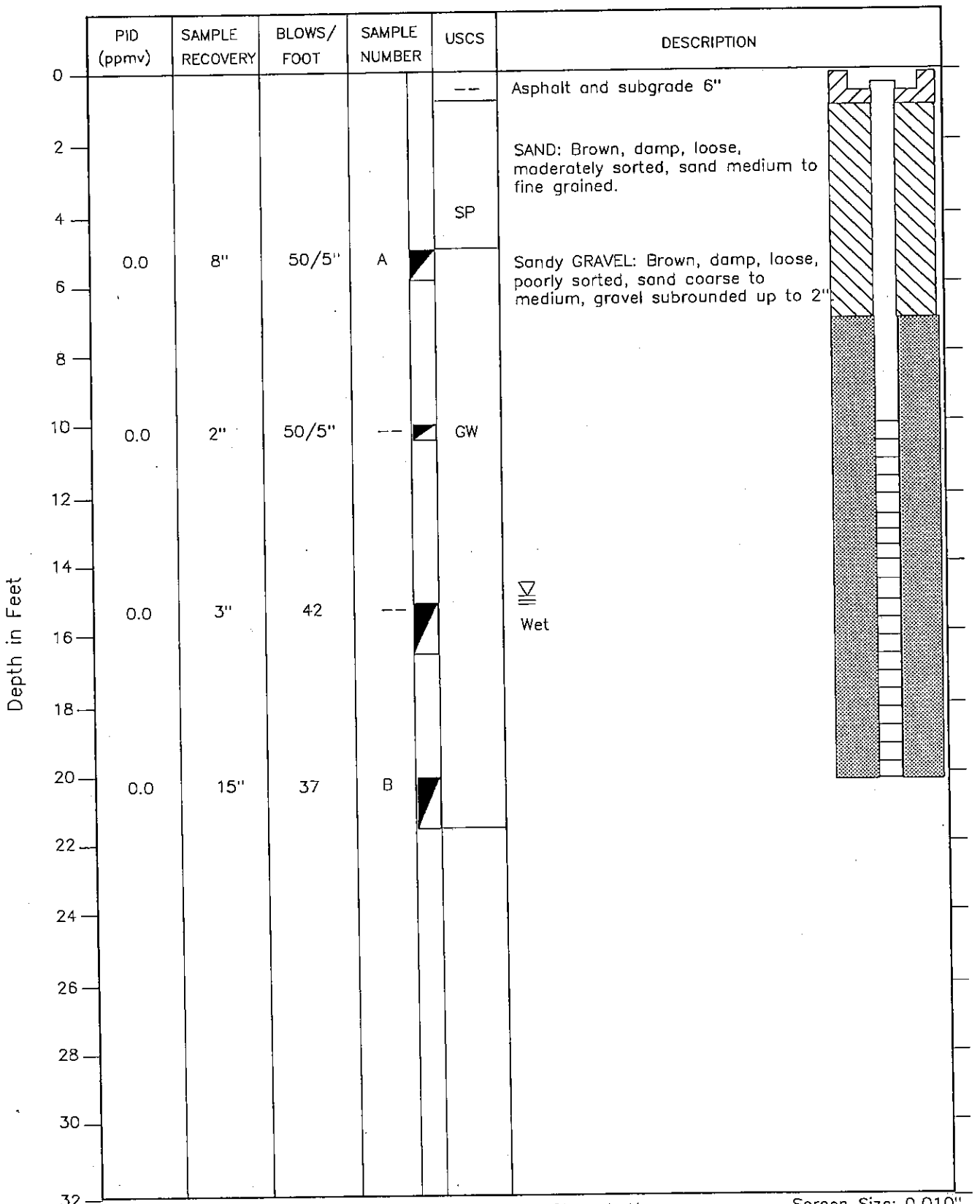
Total Depth: 20.8 feet
Date Drilled: 6/29/89
Sheet 1 of 1
File # 10490201.MW
Project # 60-1049-02

Logged by: Glenn A. Hoymon
Boring Diameter: 8"
Drilling Method: Air Rotary

Screen Size: 0.010"
Casing Size: 2" PVC

Boring No. MW01

Plate 4



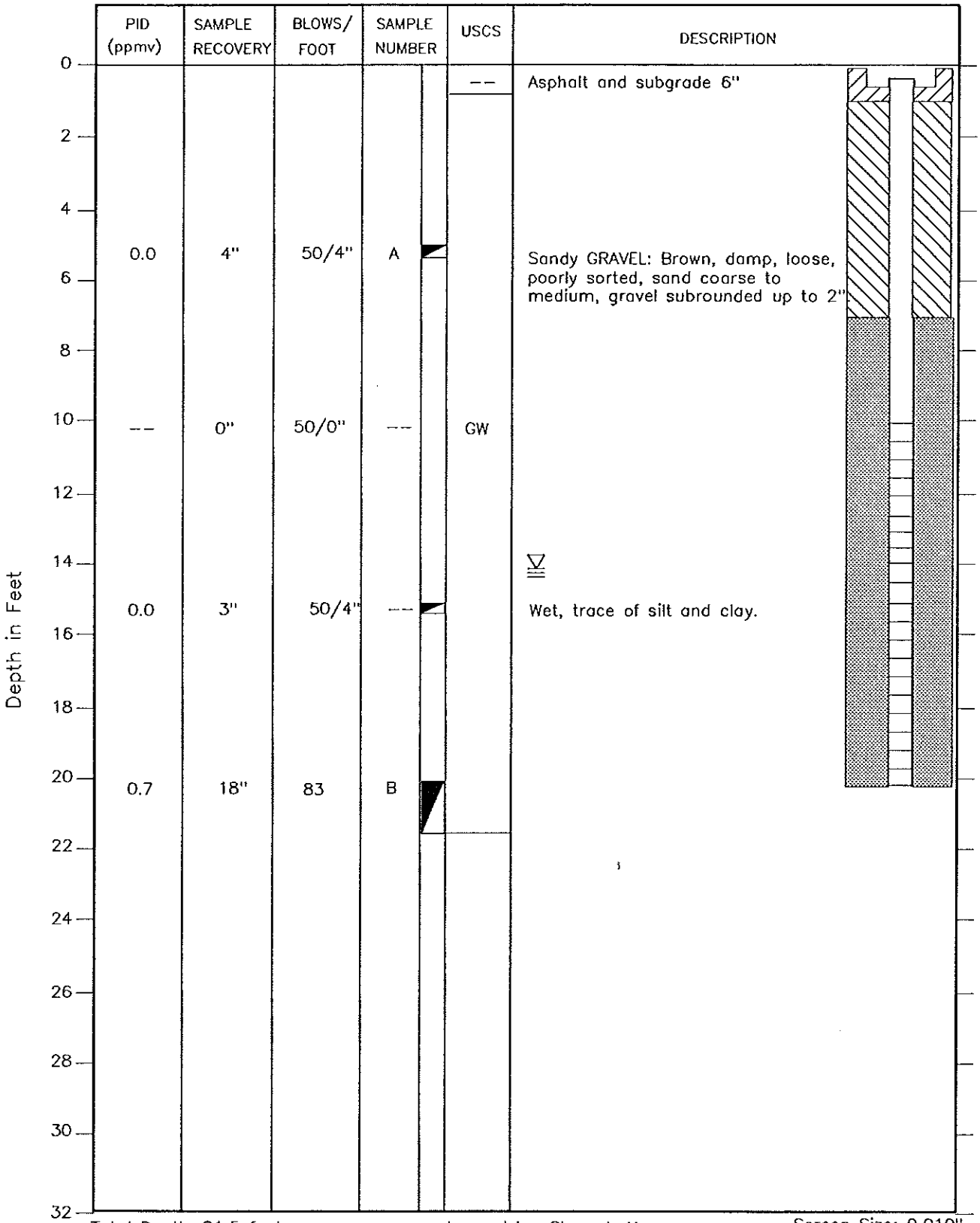
Total Depth: 21.5 feet
Date Drilled: 6/29/89
Sheet 1 of 1
File # 10490202.MW
Project # 60-1049-02

Logged by: Glenn A. Hayman
Boring Diameter: 6"
Drilling Method: Hollow-Stem Auger

Screen Size: 0.010"
Casing Size: 2" PVC

Boring No. MW02

Plate 5

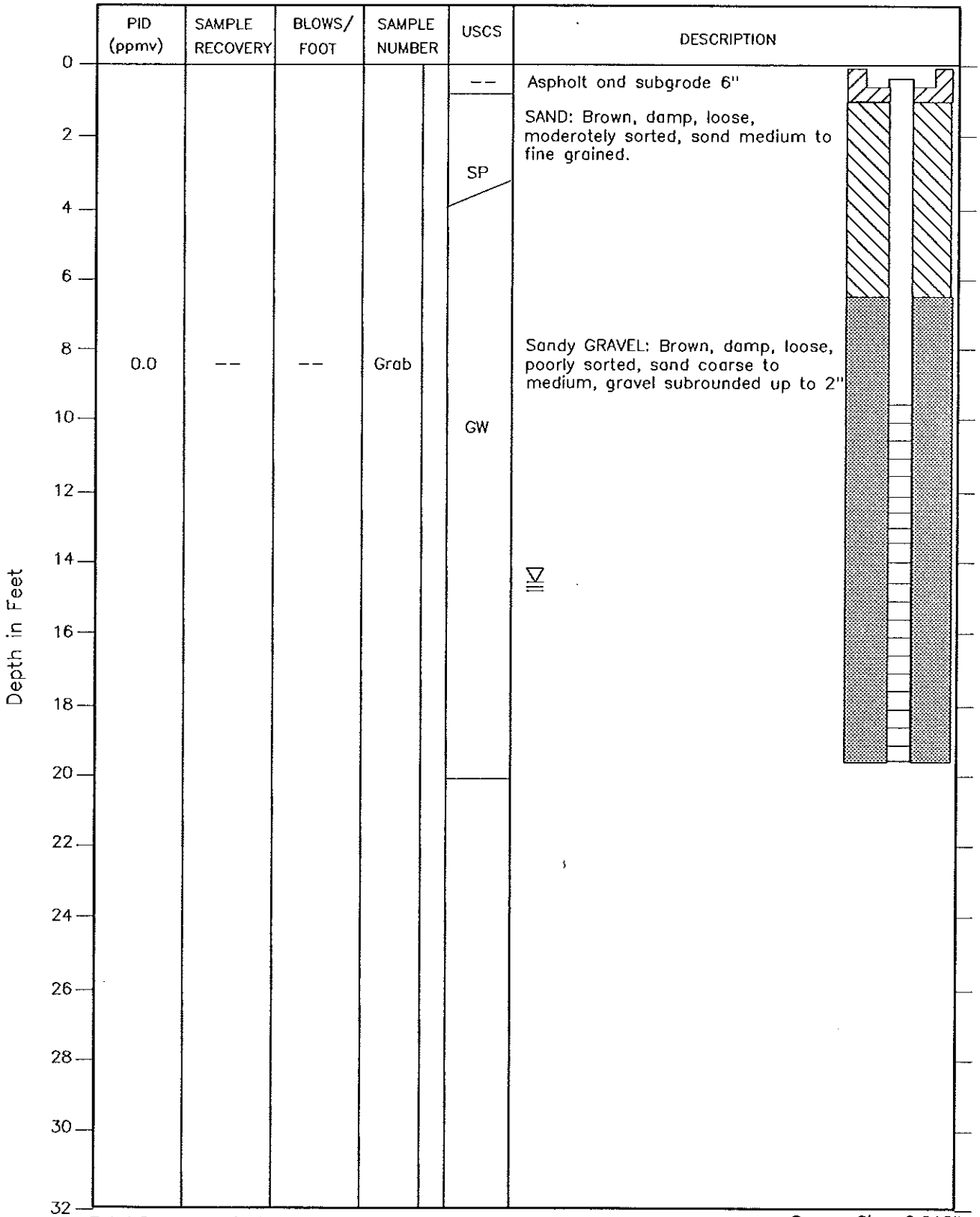


Total Depth: 21.5 feet
Dote Drilled: 6/30/89
Sheet 1 of 1
File # 10490203.MW
Project # 60-1049-02

Logged by: Glenn A. Hoyman
Boring Diameter: 6"
Drilling Method: Hollow-Stem Auger

Screen Size: 0.010"
Cosing Size: 2" PVC

Boring No. MW03 **Plate 6**

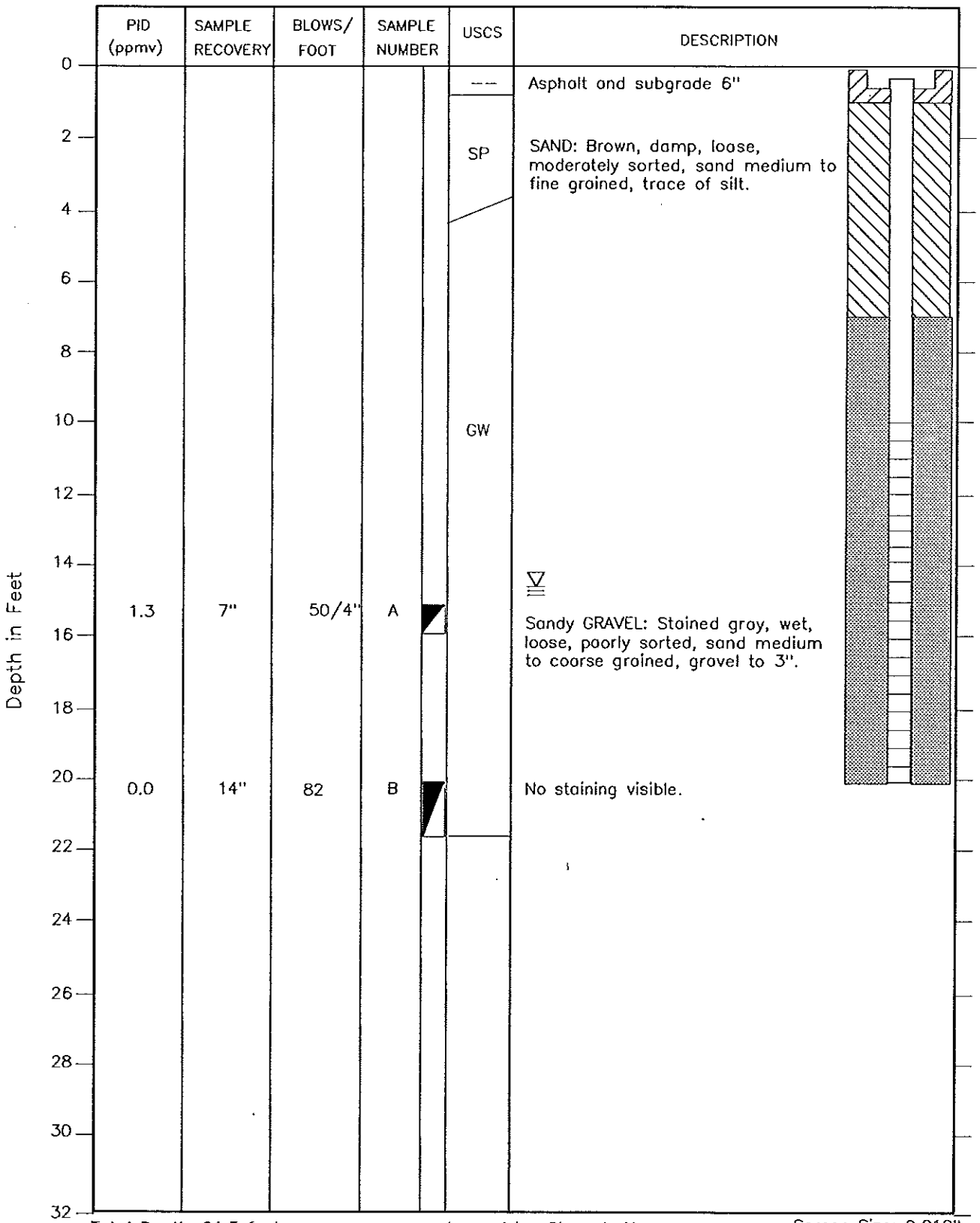


Totol Depth: 20 feet
Date Drilled: 6/30/89
Sheet 1 of 1
File # 10400204.MW
Project # 60-1049-02

Logged by: Glenn A. Hayman
Boring Diameter: 6"
Drilling Method: Hollow-Stem Auger

Screen Size: 0.010"
Casing Size: 2" PVC

Boring No. MW04 **Plate 7**

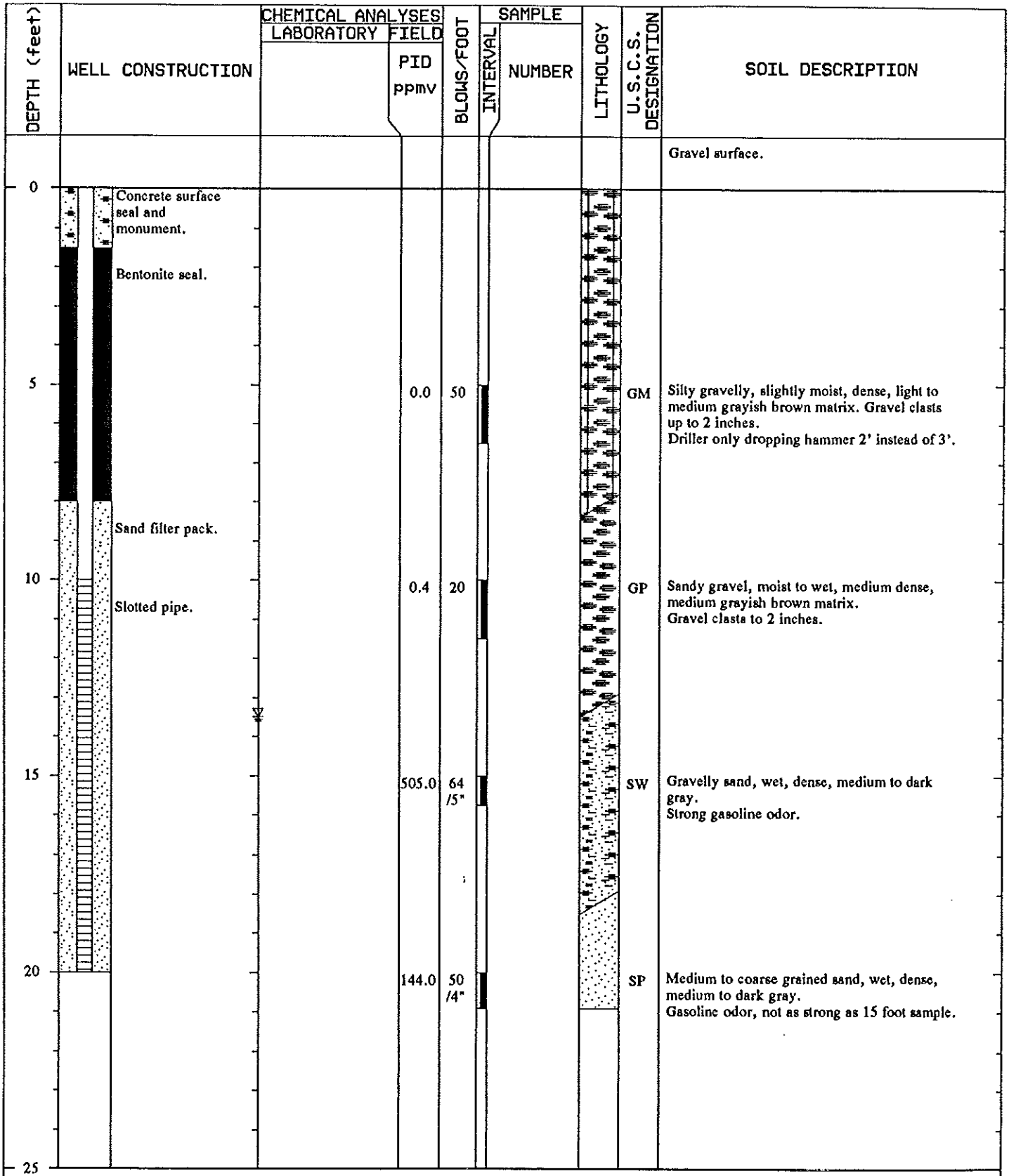


Totol Depth: 21.5 feet
Dote Drilled: 6/30/89
Sheet 1 of 1
File # 10490205.MW
Project # 60-1049-02

Logged by: Glenn A. Hayman
Boring Diameter: 6"
Drilling Method: Hollow-Stem Auger

Screen Size: 0.010"
Casing Size: 2" PVC

Boring No. MW05 **Plate 8**



FILE #:
LOGGED BY: Karin Hayman
DATE DRILLED: 5-23-90

SURFACE ELEVATION (feet): 361.0
TOTAL DEPTH (feet): 20.9
DIAMETER OF BORING: 6"

DRILLING METHOD: Hollow stem auger
SCREEN SIZE: 0.010"
CASING SIZE: 2"

KLEINFELDER

PROJECT NUMBER 60-1075-01

George Washington Way, Richland Washington

LOG OF SOILS

MW06

PLATE B-2

Drilling Log

FLUOR DANIEL GTI

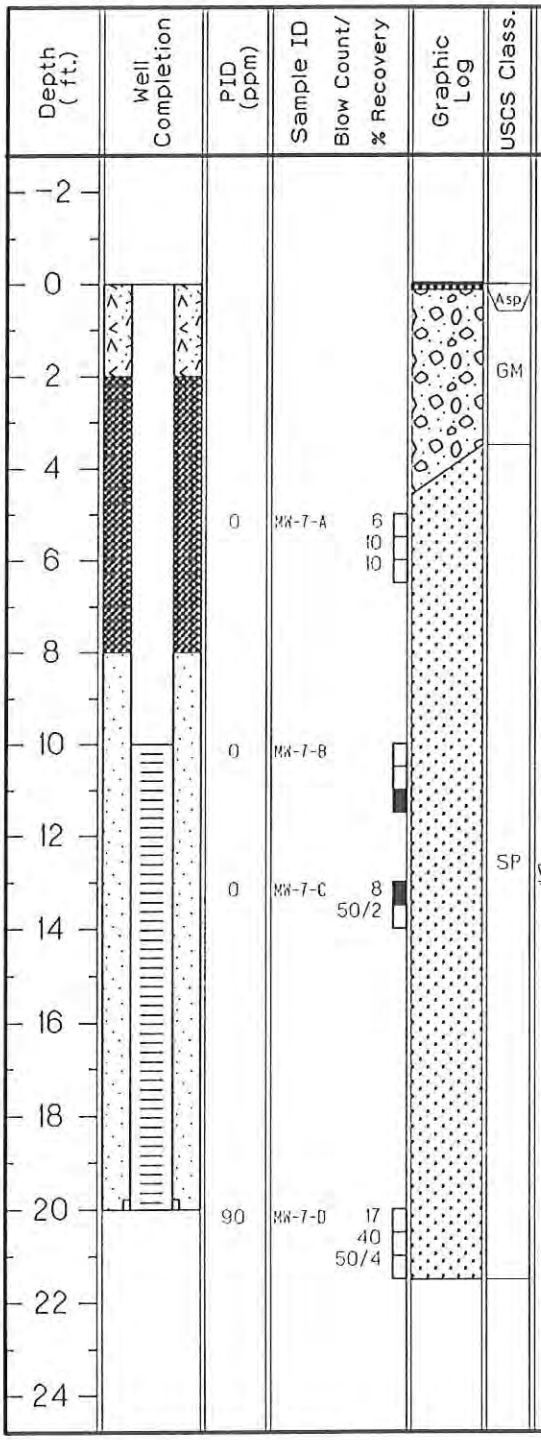
Monitoring Well MW-7

Project *Facility #25821* Owner *The Southland Corporation*
Location *1824 George Washington Way, Richland, WA* Proj. No. *020600276*
Surface Elev. ____ Total Hole Depth *20 ft.* Diameter *10 in.*
Top of Casing ____ Water Level Initial *13 ft.* Static ____
Screen: Dia *4 in.* Length *10 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *10 ft.* Type *Sched. 40 PVC*
Fill Material *10/20 Sand* Rig/Core *Mobile Drill B-59*
Drill Co. *Geo-Tech* Method *HSA*
Driller *Joel Welsh* Log By *Steve Hartman* Date *07/25/96* Permit # ____
Checked By *Stan Haskins* License No. ____

See Site Map For Boring Location

COMMENTS:

Samples represented with a black box were submitted for laboratory analysis.



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

Hand dug to two feet
1.5" Asphaltic concrete

GRAVEL and boulders, some brown silty sand, diameter <4"
(medium dense, dry, no odor)

(boulder diameter decreases with depth)

Brown medium-grained SAND, some fine-medium gravel
(medium dense, dry, no odor)

(sample MW-7-B is composited with MW-7-A)

(switch to 3-inch split spoon sampler)

(grades to fine to coarse gravel)
Encountered water at 13' at 14:40 on 7/25/96
(slight odor to water)

(grades no gravel)

End of borehole 14:55 on 7/25/96.
Construct groundwater monitoring well

MW-8

RESOURCE PROTECTION WELL REPORT

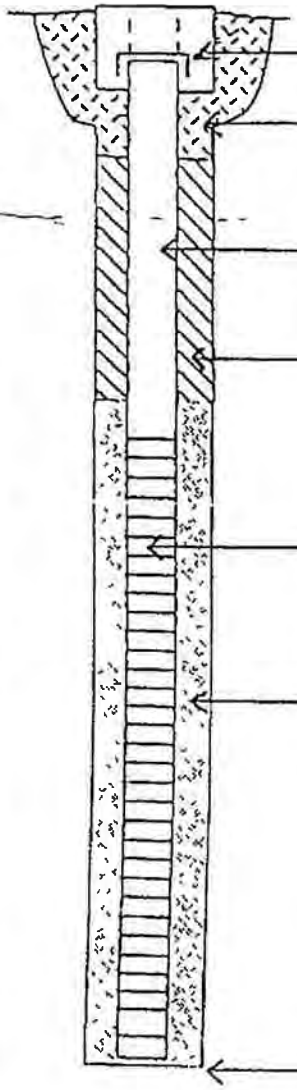
START CARD NO R050369

98746

PROJECT NAME Subway Sandwich Shop
WELL IDENTIFICATION NO AGH 232
DRILLING METHOD HSA
DRILLER Scott E Krueger
FIRM Cascade Drilling, Inc.
SIGNATURE [signature]
CONSULTING FIRM IT Corporation
REPRESENTATIVE Amy Ott

COUNTY BENTON
LOCATION NW¼ NE¼ Sec 2 Twn 9N R 28E
STREET ADDRESS OF WELL 1824 George Washington Wy, Richland
WATER LEVEL ELEVATION 17
GROUND SURFACE ELEVATION N/A
INSTALLED 4/11/01
DEVELOPED no

1228

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	WELL COVER CONCRETE SURFACE SEAL DEPTH = 1/ft PVC BLANK 2 "x 12' BACKFILL 8 ft. TYPE: bent. Chips PVC SCREEN 2 "x 15' SLOT SIZE: .020 GRAVEL PACK 17 ft. MATERIAL: 2/12 sand WELL DEPTH 27' "	0 - 27 ft. Brown sand, gravels + cobbles - ft. - ft.

SCALE 1" = _____

PAGE 1 OF 1

ECY 050 12 (Rev 11/09)

MW-8

PROJECT: **Former 7-Eleven Store No. 25821**
LOCATION: **1824 George Washington Way, Richland, WA 99352**
PROJECT NUMBER: **185750037.300.0600** **BHU 324**

WELL / PROBEHOLE / BOREHOLE NO **MW-9** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **10/2/13** COMPLETED: **10/2/13**
DRILLING COMPANY: **Holocene Drilling, Inc.**
DRILLING EQUIPMENT: **Diedrich D-120**
DRILLING METHOD: **Hollow-Stem Auger (HSA)**
SAMPLING EQUIPMENT: **Split Spoon 0'-25'**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **2**
LOGGED BY: **DH**

EASTING (ft):
LONG:
TOC ELEV (ft): **365.32**
WELL DEPTH (ft): **25.0**
BOREHOLE DEPTH (ft): **25.5**
BOREHOLE DIA. (in): **6**
CHECKED BY: **PF**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		SP	Asphalt; cleared hole to 5 feet bgs via air knife and vacuum SP; Poorly-graded sand with angular coarse gravel; SP; brown; loose; dry; no odor; no staining						
5		SP	SP; No recovery		1645 MW-9@5'	1.0	14 18 21	0.0	5
10		SP	SP; No recovery		--	--	50/4	--	10
15		SP	SP; Poorly-graded sand; SP; gray; coarse-grained sand with coarse angular gravel; medium dense; wet; no odor; no staining		--	--	50/5	--	15
20		SP	SP; Poorly-graded sand; SP; gray; coarse-grained sand with coarse angular gravel; medium dense; wet; no odor; no staining		1710 MW-9@20'	1.0	38 24 15	4.2	20
25					1715 MW-9@25'	0.05	50/3	0.0	25
			Borehole terminated at 25.5 feet.						

Borehole Backfill
- Flush Mount Monument
- Hydrated Bentonite Chips
- Colorado 10/20 Sand
- Screen

GEO FORM 304 25821 SOIL BORING LOGS - COPY.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/2/14

PROJECT: **Former 7-Eleven Store No. 25821**
LOCATION: **1824 George Washington Way, Richland, WA 99352**
PROJECT NUMBER: **185750037.300.0600** **BHU 323**

WELL / PROBEHOLE / BOREHOLE NO **MW-10** PAGE 1 OF 1

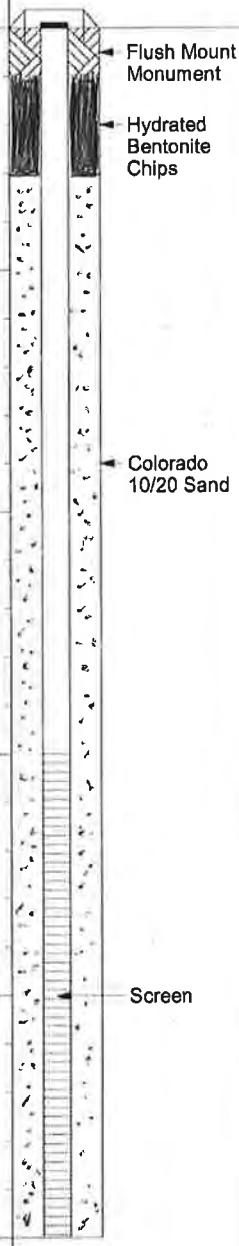
Stantec

DRILLING / INSTALLATION:
STARTED **10/2/13** COMPLETED: **10/2/13**
DRILLING COMPANY: **Holocene Drilling, Inc.**
DRILLING EQUIPMENT: **Diedrich D-120**
DRILLING METHOD: **Hollow-Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon 0'-25'**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **2**
LOGGED BY: **DH**

EASTING (ft):
LONG:
TOC ELEV (ft): **365.77**
WELL DEPTH (ft): **25.0**
BOREHOLE DEPTH (ft): **26.0**
BOREHOLE DIA. (in): **6**
CHECKED BY: **PF**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)
		SP	Asphalt top 4 inches; hole cleared to 5 feet bgs via air knife and vacuum SP; Poorly-graded sand with gravel; SP; brown; fine grained sand with rounded fine gravel; loose; dry; no odor					
5		SP	SP; Poorly-graded sand with gravel; SP; brown; fine grained sand with rounded fine gravel; loose; dry; no odor		1510 MW-10@5'	0.5	12 14 21	0.0
10		GW	GW; Gravel-sand mixture; GW; gray; fine-grained sand; dry; dense; no odor		1515 MW-10@10'	0.10	13 50/6	0.1
15		SP	SP; Poorly-graded sand with gravel; SP; gray; fine-grained sand; dense; wet; no odor		1520 MW-10@15'	1	13 48 47	0.0
20		SP	SP; Poorly-graded sand with gravel; SP; gray; fine-grained sand; dense; wet; no odor		1530 MW-10@20'	1.5	16 30 54	0.0
25		SP	SP; Poorly-graded sand with gravel; SP; gray; fine-grained sand; dense; wet; no odor		1540 MW-10@25'	1.5	18 50/5	0.0
			Borehole terminated at 26 feet.					



GEO FORM 304 25821 SOIL BORING LOGS - COPY.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/2/14

PROJECT: **Former 7-Eleven Store No. 25821**
LOCATION: **1824 George Washington Way, Richland, WA 99352**
PROJECT NUMBER: **185750037.300.0600** **BHU 322**

WELL / PROBEHOLE / BOREHOLE NO **MW-11** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **10/2/13** COMPLETED: **10/2/13**
DRILLING COMPANY: **Holocene Drilling, Inc.**
DRILLING EQUIPMENT: **Diedrich D-120**
DRILLING METHOD: **Hollow-Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon 0'-25'**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **2**
LOGGED BY: **DH**

EASTING (ft):
LONG:
TOC ELEV (ft): **365.57**
WELL DEPTH (ft): **24.5**
BOREHOLE DEPTH (ft): **25.5**
BOREHOLE DIA. (in): **6**
CHECKED BY: **PF**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Asphalt top 4 inches; cleared hole to 5 feet bgs via air knife and vacuum						
		SW	SW; Sand with fines and gravel; SW; brown; very fine to fine grained sand and fine gravel; slightlly moist; loose; orange iron oxide streaks						
5		SW	SW; Same as above		1330 MW-11@5'	0.2	7 9 18	0.0	5
10		SW	SW; Same as above		1340 MW-11@10'	0.2	12 50/5	0.0	10
15		SW	SW; Poorly graded sand with some gravel; SP; grayish brown; fine grained sand and coarse gravel; dense; wet; no odor		1350 MW-11@15'	0.2	15 18 33	0.0	15
20		SP	SP; Poorly graded sand with some gravel; SP; grayish brown; fine grained sand and coarse gravel; dense; wet; no odor		1400 MW-11@20'	0.2	50/6	0.0	20
25					1410 MW-11@25'	0.1	50/5	0.0	25
			Borehole terminated at 25.5 feet.						

Borehole Backfill

GEO FORM 304 25821 SOIL BORING LOGS - COPY.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/2/14

PROJECT: **Former 7-Eleven Store No. 25821**
LOCATION: **1824 George Washington Way, Richland, WA 99352**
PROJECT NUMBER: **185750037.300.0600** **BHU 321**

WELL / PROBEHOLE / BOREHOLE NO **MW-12** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **10/2/13** COMPLETED: **10/2/13**
DRILLING COMPANY: **Holocene Drilling, Inc.**
DRILLING EQUIPMENT: **Diedrich D-120**
DRILLING METHOD: **Hollow-Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon 0'-25'**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **2**
LOGGED BY: **DH**

EASTING (ft):
LONG:
TOC ELEV (ft): **364.40**
WELL DEPTH (ft): **25.0**
BOREHOLE DEPTH (ft): **25.5**
BOREHOLE DIA. (in): **6**
CHECKED BY: **PF**

Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		GW	Grassy landscaping; cleared hole to 4 feet bgs via air knife and vacuum GW; No recovery							Flush Mount Monument
										Bentonite
5		GW	GW; No recovery		1130 MW-12@5'	0.1	12 50/4	31.4	5	
										Colorado 10-20 Sand
10		GP	GP; No recovery; gravel		--	0.05	50/3	14.9	10	
15		SP	SP; Poorly-graded sand with gravel, SP; brown; coarse-grained sand with angular gravel; medium dense; wet; no odor; no stalning		1145 MW-12@15'	0.1	50/5	1.0	15	
20		SP	SP; Poorly-graded sand with gravel; SP; gray; fine-grained sand and fine angular gravel; dense, wet; no odor; no staining		1155 MW-12@20'	0.5	19 50/3	0.0	20	Screen
25					1210 MW-12@25'	1	11 50/6	0.0	25	
			Borehole terminated at 25.5 feet.							

GEO FORM 304 25821 SOIL BORING LOGS - COPY.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/2/14

AS-1

RESOURCE PROTECTION WELL REPORT

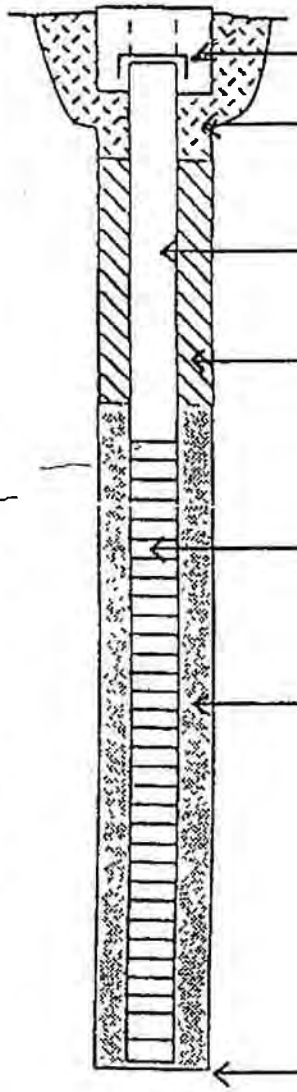
98745

START CARD NO R050369

PROJECT NAME: Subway Sandwich Shop
WELL IDENTIFICATION NO AGH 231
DRILLING METHOD HSA
DRILLER Scott E. Krueger
FIRM Cascade Drilling, Inc.
SIGNATURE [signature]
CONSULTING FIRM IT Corporation
REPRESENTATIVE Amy Ott

COUNTY. BENTON
LOCATION NW 1/4 NE 1/4 Sec 2 Twn 9N R 28E
STREET ADDRESS OF WELL 1824 George Washington Wy. Richland
WATER LEVEL ELEVATION 15
GROUND SURFACE ELEVATION N/A
INSTALLED. 4/11/01
DEVELOPED No

1228

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	WELL COVER CONCRETE SURFACE SEAL DEPTH = 1/ft PVC BLANK 2 "x 27' BACKFILL 25 ft. TYPE: bent. Chips PVC SCREEN 2 "x 2 ' SLOT SIZE: .020 GRAVEL PACK 3 ft. MATERIAL: #12 Conc WELL DEPTH 30 ' "	0 - 30 ft. brown, sand, gravels + cobbles - ft. - ft.

SCALE: 1" = _____

PAGE 1 OF 1

ECY 050 12 (Rev 11/99)

AS-1

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-1

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			16.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID (ppm)	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, loose, medium grained, poorly graded, odor.		
			Crushed rock.		
			SAND (SP); brown, low moisture, medium grained, medium gravel, subrounded to 2", odor.		
	5			23 ppm	GP-1@5'
				17 ppm	
	10				GP-1@10'
				18 ppm	
			As above.		
	15			21 ppm	GP-1@16'
			REFUSAL AT 16 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-1

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-2

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			18.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick. SAND (SP); brown, low moisture, loose, medium grained, subrounded gravel to 2".		
	5			42 ppm	GP-2@5'
	10			40 ppm	GP-2@10'
			As above.		
	15			32 ppm	GP-2@15'
			As above. REFUSAL AT 18 FEET BELOW GROUND SURFACE.	16 ppm	GP-2@18'
	20				

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-2

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-3

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			12.0	NA	NA

Boring Abandonment	Depth. (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, loose, medium grained, no odor.		
	5			1 ppm	GP-3@5'
			As above.		
	10		As above.	1 ppm	GP-3@10'
				1.5 ppm	GP-3@12'
			REFUSAL AT 12 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-3

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-4

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			16.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, loose, fine to medium grained, poorly sorted.	0 ppm	
	5			1 ppm	GP-4@5'
			As above.		
			As above.		
	10			0 ppm	GP-4@10'
			Pea Gravel, 5 to 15 mm.		
			Sandy GRAVEL (GP); poorly sorted with sand, gravel with cobbles.		
	15			0 ppm	GP-4@15'
			REFUSAL AT 16 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-4

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-5

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			14.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, fine to medium grained, poorly sorted.		
				1.4 ppm	
	5		As above.		
	10		As above.	0.3 ppm	GP-5@10'
			Sandy GRAVEL (GP); moist, cobbles 2 to 4".	1.1 ppm	
				2 ppm	GP-5@14'
	15		REFUSAL AT 14 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-5

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-6

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			12.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, fine to medium grained, poorly sorted, slight odor.		
	5			5 ppm	GP-6@5'
			As above.		
			No odor.		
	10		Sandy GRAVEL (GP); medium moisture, cobbles, odor.	2 ppm	GP-6@10'
				68 ppm	GP-6@12'
			REFUSAL AT 12 FEET BELOW GOUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-6

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-7

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			12.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, fine to medium grained, poorly sorted.		
	5			0.5 ppm	GP-7@5'
			As above.		
			As above.		
	10			1 ppm	GP-7@10'
			GRAVEL and COBBLES (alluvium).		
				1 ppm	GP-7@12'
			REFUSAL AT 12 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-7

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-8

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			10.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, fine to medium grained, poorly sorted.		
	5			0.5 ppm	GP-8@5'
			As above.		
			GRAVEL with COBBLES.		
	10			0.4 ppm	GP-8@10'
			REFUSAL AT 10 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-8

Approved by _____

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Boring Number:
D. JOHNSON	7/9/04	CASCADE DRILLING	7-ELEVEN FACILITY 25821 RICHLAND, WASHINGTON	GEOPROBE	GP-9

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elev.(ft.):	Groundwater Depth (ft.):	Total Depth (ft.):	Drive wt.(lbs.):	Drop Dist.(in.):
	2			14.0	NA	NA

Boring Abandonment	Depth, (ft.)	Sample Interval	Description	PID	SAMPLE
			Asphalt 4" thick.		
			SAND (SP); brown, low moisture, fine to medium grained, poorly sorted.		
	5			0.8 ppm	GP-9@5'
			As above.		
			Sandy GRAVEL (GP); brown, dry, loose, poorly sorted, cobbles.		
	10			0.4 ppm	GP-9@10'
				1.3 ppm	GP-9@14'
	15		REFUSAL AT 14 FEET BELOW GROUND SURFACE.		

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

25821(BL).GPJ LOG OF BH-REDLANDS-REV1

Project No. **01EL.25821.04**
Date

Log of Boring/Well: GP-9

Approved by _____

PROJECT: **Former 7-Eleven #25821**
LOCATION: **1824 George Washington Way, Richland, WA**
PROJECT NUMBER: **185750037.400.0600**

BORING NO: **CB-1** PAGE 1 OF 1

Stantec

INSTALLATION:
STARTED **7/28/15** COMPLETED: **7/28/15**
DRILLING COMPANY: **Holocene**
EQUIPMENT: **Mobile B-59**
METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon (2"& 3")**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **18**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
DEPTH (ft): **26.5**
WELL CASING DIA. (in): **---**
BOREHOLE DIA. (in): **8**
LOGGED BY: **DH**
CHECKED BY: **PF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		SP	SP; Medium dense, fine to medium grained sand with gravel, brown, dry to moist. -Air Knife/Vacuum to 5'						
5					1315 CB-1-5	1	11 13 13	0.0	5
10					1330 CB-1-10	1	8 7 8	0.0	10
15		GP	GP; Medium dense, gravel with sand, brown, moist.		1340 CB-1-15	.2	11 11 9	3.6	15
		SP	SP; Dense to very dense, coarse grained sand, gray, wet.						
20					1355 CB-1-20	0.5	18 50	1.3	20
		GP	GP; Very dense, gravel with coarse sand, gray, wet.						
25					1410 CB-1-25	1.25	19 36 x	0.0	25
			Borehole terminated at 26.5 feet.						

GEO FORM 304 7-11 RICHLAND.GPJ 20150710.GDT 2/12/16

PROJECT: **Former 7-Eleven #25821**
LOCATION: **1824 George Washington Way, Richland, WA**
PROJECT NUMBER: **185750037.400.0600**

BORING NO: **CB-2** PAGE 1 OF 1

Stantec

INSTALLATION:
STARTED **7/29/15** COMPLETED: **7/29/15**
DRILLING COMPANY: **Holocene**
EQUIPMENT: **Mobile B-59**
METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon (2"& 3")**

NORTHING (ft): EASTING (ft):
LAT: LONG:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **18** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** DEPTH (ft): **26.0**
WELL CASING DIA. (in): **---** BOREHOLE DIA. (in): **8**
LOGGED BY: **DH** CHECKED BY: **PF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		GP	GP; Medium dense, gravel with sand and cobbles, brown to gray, dry. -Air Knife/Vacuum to 5'						
5						0	11 8 9		5
		SP	SP; Medium dense, fine to medium grained sand with pea gravel, brown, dry.						
10					0850 CB-2-10	.1	4 4 6	7.7	10
		SP	SP; Dense to very dense, fine to coarse grained sand with gravel, gray, moist.						
15					0855 CB-2-15	1	23 38 34	10.5	15
		SP	SP; Very dense, fine to coarse grained sand with trace gravel, dark gray, wet.						
20					0905 CB-2-20	1	11 19 39	2.7	20
25					0915 CB-2-25	.5	50	1.0	25
			Borehole terminated at 26 feet.						

PROJECT: **Former 7-Eleven #25821**
LOCATION: **1824 George Washington Way, Richland, WA**
PROJECT NUMBER: **185750037.400.0600**

BORING NO: **CB-3** PAGE 1 OF 1

Stantec

INSTALLATION:
STARTED **7/28/15** COMPLETED: **7/28/15**
DRILLING COMPANY: **Holocene**
EQUIPMENT: **Mobile B-59**
METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon (2"& 3")**

NORTHING (ft): EASTING (ft):
LAT: LONG:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **18** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** DEPTH (ft): **26.5**
WELL CASING DIA. (in): **---** BOREHOLE DIA. (in): **8**
LOGGED BY: **DH** CHECKED BY: **PF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		SP	SP; Medium dense, fine to medium grained sand with gravel, brown, dry. -Air Knife/Vacuum to 5'						
5					1600 CB-3-5	0.25	6 4 5	0.0	5
		GP	GP; Medium dense to dense, gravel with sand, brown, moist.						
10					x x			x	10
15					1615 CB-3-15	0.5	10 15 19	1.2	15
		SP	SP; Very dense, coarse grained sand with gravel, gray, wet.						
20					1620 CB-3-20	0.25	28 50	0.0	20
25					1635 CB-3-25	1.5	18 22 50	0.0	25
			Borehole terminated at 26.5 feet.						

GEO FORM 304 7-11 RICHLAND.GPJ 20150710.GDT 2/12/16

PROJECT: **Former 7-Eleven #25821**
LOCATION: **1824 George Washington Way, Richland, WA**
PROJECT NUMBER: **185750037.400.0600**

BORING NO: **CB-4** PAGE 1 OF 1

Stantec

INSTALLATION:
STARTED **7/29/15** COMPLETED: **7/29/15**
DRILLING COMPANY: **Holocene**
EQUIPMENT: **Mobile B-59**
METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon (2"& 3")**

NORTHING (ft): EASTING (ft):
LAT: LONG:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **18** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** DEPTH (ft): **26.5**
WELL CASING DIA. (in): **---** BOREHOLE DIA. (in): **8**
LOGGED BY: **DH** CHECKED BY: **PF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		GP	GP; Medium dense to very dense, gravel with sand and cobbles, brown to gray, dry to moist. -Air Knife/Vacuum to 5'						
5					1200 CB-4-5	x	50	0.0	5
10						0	10 8 5		10
15						x			15
		SP	SP; Very dense, fine to coarse grained sand with gravel, gray, wet.						
20					1245 CB-4-20	1	19 36 45	2.8	20
25					1255 CB-4-25	1.5	9 36 50	1.2	25
			Borehole terminated at 26.5 feet.						

GEO FORM 304 7-11 RICHLAND.GPJ 20150710.GDT 2/12/16

PROJECT: **Former 7-Eleven #25821**
LOCATION: **1824 George Washington Way, Richland, WA**
PROJECT NUMBER: **185750037.400.0600**

BORING NO: **CB-5** PAGE 1 OF 1

Stantec

INSTALLATION:
STARTED **7/29/15** COMPLETED: **7/29/15**
DRILLING COMPANY: **Holocene**
EQUIPMENT: **Mobile B-59**
METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon (2"& 3")**

NORTHING (ft): EASTING (ft):
LAT: LONG:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **18** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** DEPTH (ft): **26.0**
WELL CASING DIA. (in): **---** BOREHOLE DIA. (in): **8**
LOGGED BY: **DH** CHECKED BY: **PF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		GP	GP; Medium dense, gravel with sand and cobbles, brown, dry. -Air Knife/Vacuum to 5'						
5					1010 CB-5-5	x	13 6 5	0.9	5
		GP	GP; Loose to medium dense, pea gravel with sand, brown, moist.						
10					1020 CB-5-10	0.75	2 3 6	11.3	10
		SP	SP; Dense to very dense, coarse grained sand with gravel, gray, moist to wet.						
15					1025 CB-5-15	0.75	12 31 30	8.5	15
20					1035 CB-5-20	0.75	18 39 50	1.3	20
		SP	SP; Very dense, coarse sand with gravel, gray, wet.						
25					1045 CB-5-25	1	34 50	11.7	25
			Borehole terminated at 26 feet.						

GEO FORM 304 7-11 RICHLAND.GPJ 20150710.GDT 2/12/16