Groundwater Monitoring Report

Safeway #1436 Fueling Station/Former My Uncle's Store
7201 Portland Avenue
Tacoma, Washington

January 23, 2018
Terracon Project No. 81167550

Prepared for:
Safeway, Inc.
Tacoma, Washington

Prepared by:
Terracon Consultants, Inc.
Mountlake Terrace, Washington

January 23, 2018

Terracon

Safeway, Inc.
250 Parkcenter Blvd
PO Box 20
Boise, Idaho 83726

Attn: Mr. Robert DeNinno
P: 208.395.4790
E: Robert.deninno@albertsons.com

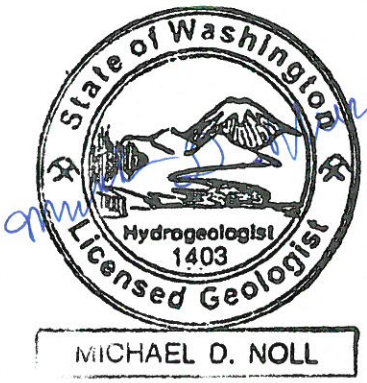
Re: **Groundwater Monitoring Report**
Safeway #1436 Fueling Station/Former My Uncle's Store
7201 Portland Avenue
Tacoma, Pierce County, Washington 98404
TPCHD UST Permit #0000648
Terracon Project No: 81167550

Dear Mr. DeNinno:

Terracon Consultants, Inc. (Terracon) is pleased to submit our report of groundwater monitoring activities completed at the site referenced above (the Site) during December 2017. The report presents data from recent field activities that included the collection of groundwater samples for chemical analysis. The activities were completed to further assess groundwater quality at the Site. Terracon conducted the investigation in general accordance with our Proposal dated October 24, 2016, *Work Plan for Groundwater Monitoring Well Installations and Quarterly Monitoring* dated November 2, 2016 (Terracon Project No. 81167550), and Project Services Agreement dated October 27, 2016.

Terracon appreciates this opportunity to provide environmental services to Safeway, Inc. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.



Natalie Baker
Assistant Geologist

Michael D. Noll, Lg., L.Hg.
Senior Project Manager

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Groundwater Monitoring Report

SAFEWAY #1436 FUELING STATION/Former My Uncle's Store
7201 Portland Avenue
TACOMA, WASHINGTON

Terracon Project No. 81167550
January 23, 2018

1.0 SITE DESRIPTION

The Safeway store property is an approximately 4.43-acre tract of land (Pierce County tax parcel 0320274090) located on the southeast corner of Portland Avenue and East 72nd Street in Tacoma, Washington. The northwest portion of the property parcel (the Site) was developed as a gasoline station around 1953 and operated until the 1970s. A Chevron-branded gasoline station/convenience store (My Uncle's Store) was constructed on the Site in the late 1970s and operated until 2001, when the underground storage tanks (USTs) were removed. According to Washington State Department of Ecology (Ecology) online records, the former Chevron facility was most recently equipped with three 10,000-gallon single-walled steel USTs that were installed in 1982 and upgraded in 1997. A Safeway fueling station was constructed on the Site in 2002. The Safeway fueling station consists of two 20,000-gallon jacketed steel USTs. Double-walled fiberglass piping supplies fuel to dispensers located on seven dispenser islands, which are covered with a canopy.

The Site location is depicted on Exhibit 1 in Appendix A, a portion of the 1994 Tacoma South USGS Topographic map. The Site layout is shown on Exhibit 2 in Appendix A, including the locations of current Site structures, former USTs and dispensers, approximate extents of the former UST removal and remedial excavation, and the current groundwater monitoring wells.

Environmental Partners, Inc. (EPI) advanced four soil borings at the Site (TB-1 through TB-4) to depths ranging from 21.5 to 36.5 feet below the ground surface (bgs) in October 2000. EPI reported that groundwater was not encountered in the borings to the maximum depth explored (36.5 feet bgs). Soil samples collected from three of the borings at depths ranging from 1.5 to 5 feet bgs contained gasoline-range total petroleum hydrocarbons (TPH) and benzene at concentrations exceeding the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels.

The My Uncle's Store USTs, dispensers, and product piping were excavated and removed in December 2001. Soil with gasoline-range TPH and benzene exceeding MTCA Method A cleanup levels and the presence of water with a petroleum sheen in the UST removal excavation were documented during the UST system removal work, and a confirmed release of petroleum hydrocarbons was reported to Ecology by EPI on December 14, 2001.

Petroleum-contaminated soil (PCS) was excavated and removed from the northwestern portion of the former My Uncle's Store UST system area in January 2002. EPI collected 210 soil samples from the excavation for laboratory analysis, including 68 samples from the excavation bottom and 142 samples from the excavation sidewalls. The final soil excavation measured approximately 96 feet by 115 feet, and 13 feet deep. Approximately 5,100 tons of PCS were removed from the excavation for offsite disposal. Approximately 54,000 gallons of hydrocarbon-impacted water with some petroleum sheen were also removed from the excavation, treated, and disposed in the City of Tacoma sanitary sewer system. According to EPI, very little groundwater entered the excavation; the majority of the water removed from the excavation was from surface runoff and rainwater.

Soil samples collected from the final northern and western extents of the excavation at depths ranging from 3 to 13 feet bgs contained gasoline-range TPH concentrations ranging from 53 to 6,500 milligrams per kilogram (mg/kg) and/or benzene concentrations ranging from 0.08 to 99 mg/kg, which exceed the MTCA Method A cleanup levels of 30 mg/kg (when benzene is present) and 0.03 mg/kg, respectively. Soil samples collected from the final extent of the southern and eastern excavation sidewalls and from the excavation bottom reportedly did not contain contaminants exceeding the MTCA Method A cleanup levels.

In November 2016, Terracon advanced four soil borings (MW1 through MW4) along the western and northern property boundaries in order to address a request from the Tacoma-Pierce County Health Department (TPCHD) for additional Site characterization data. The borings were advanced to approximately 20 feet bgs and completed as 2-inch diameter polyvinyl chloride (PVC) groundwater monitoring wells. Fill soil was encountered in the borings to depths of approximately 10 feet bgs, underlain by glacial deposits to the bottom of the borings. Measured depth to groundwater in the wells ranged from approximately 5 to 6 feet bgs, with a horizontal groundwater gradient toward the west and southwest.

Soil and groundwater samples collected from the borings/wells were analyzed for gasoline-, diesel-, and oil-range TPH, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX). A subsurface soil sample collected at approximately 6.5 feet bgs from boring MW2 (located in the northwest corner of the Site) had a concentration of benzene detected at 0.3 mg/kg, which exceeds the MTCA Method A cleanup level of 0.03 mg/kg. The remaining soil sample results were either below the laboratory method reporting limits (MRLs) or below the MTCA Method A cleanup levels. The groundwater sample collected from monitoring well MW2 contained gasoline-range TPH and benzene at concentrations of 820 micrograms per liter (µg/l) and 46 µg/l, respectively, which exceed the MTCA Method A cleanup levels of 800 µg/l and 5 µg/l, respectively. The remaining groundwater sample results were below the laboratory MRLs.

Groundwater monitoring wells MW1 through MW4 were sampled in March 2017. Measured depth to groundwater in the wells ranged from approximately 4 to 4.5 feet bgs, with a horizontal

groundwater gradient toward the west. Groundwater samples were analyzed for gasoline-, diesel-, and oil-range TPH, and for BTEX. The groundwater sample collected from well MW2, where gasoline-range TPH was previously detected in November 2016, was additionally analyzed for volatile organic compounds (VOCs) gasoline oxygenates and additives, including ethanol, methyl tert butyl ether (MTBE), diisopropyl ether, ethyl t-butyl ether, tert-amyl methyl ether (TAME), and tert-butanol. The groundwater sample collected from monitoring well MW2 contained gasoline-range TPH and benzene at concentrations of 970 µg/l and 18 µg/l, respectively, which exceed the MTCA Method A cleanup levels. Results for gasoline oxygenates and additives were below the laboratory MRLs. Other VOCs were detected in the MW2 sample, including isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, S-butylbenzene, N-butylbenzene, and naphthalene, but at concentrations well below their respective MTCA Method A cleanup levels or MTCA Method B cleanup levels (for chemicals where a MTCA Method A cleanup level has not been established). The remaining groundwater sample results were below the laboratory MRLs.

Groundwater monitoring wells MW1 through MW4 were sampled in June 2017. Measured depth to groundwater in the wells ranged from approximately 5 to 6 feet bgs, with a horizontal groundwater gradient toward the southwest. Groundwater samples were analyzed for gasoline-, diesel-, and oil-range TPH, and for VOCs. The groundwater sample collected from monitoring well MW2 contained benzene at a concentration of 6.7 µg/l, which exceeds the MTCA Method A cleanup level. The remaining groundwater sample results were either below the laboratory MRLs or below the MTCA Method A or MTCA Method B cleanup levels.

Groundwater monitoring wells MW1 through MW4 were sampled in September 2017. Measured depth to groundwater in the wells ranged from approximately 5 to 8 feet bgs, with a horizontal groundwater gradient toward the southwest. Groundwater samples were analyzed for gasoline-, diesel-, and oil-range TPH; and for BTEX. Gasoline-, diesel-, and oil-range TPH and BTEX were not reported at concentrations above the laboratory MRLs in the groundwater samples collected from the on-site groundwater monitoring wells in September 2017.

2.0 SCOPE OF SERVICES

Terracon's scope of work was conducted in general accordance with our proposal, dated October 24, 2016; *Work Plan for Groundwater Monitoring Well Installations and Quarterly Monitoring,* dated November 2, 2016; and Project Services Agreement, dated October 27, 2016. Our scope of services included completion of the following tasks:

- Collect groundwater samples from each of the onsite groundwater monitoring wells (MW1 though MW4);
- Complete laboratory analyses of groundwater samples; and
- Prepare this Groundwater Monitoring summary report.

2.1 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and work plan.

2.2 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services. We cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this investigation. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

2.3 Reliance

This report has been prepared for the exclusive use of Safeway, Inc., and any authorization for use or reliance by any other party (except for a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Safeway, Inc. and Terracon. Any unauthorized distribution or reuse is at Safeway, Inc.'s sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, report, and Terracon's Agreement for Services. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to Safeway, Inc. and all relying parties unless otherwise agreed in writing.

3.0 FIELD INVESTIGATION

Terracon has a commitment to the safety of all its employees. As such, and in accordance with our *Incident and Injury Free*® safety goals, Terracon conducted the fieldwork under a site-specific health and safety plan developed for this project. Work was performed using the Occupational Health and Safety Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots. In an effort to locate underground utilities in the work area, Terracon contacted the Washington State Utility Notification Center to arrange for public underground utility clearance at the Site. In addition, a private utility location service was subcontracted by Terracon to identify the locations and depths of the various utilities located near the proposed borings.

3.1 Groundwater Sampling

On December 26, 2017, Terracon representative Kyle Bennett mobilized to the Site to perform groundwater monitoring activities and to collect groundwater samples from wells MW1 through MW4.

Prior to sample collection, the monitoring wells were opened and exposed to surficial atmospheric conditions, and static depth to groundwater below the top of the well casing (TOC) was measured in each well. The water level probe was decontaminated using a non-phosphate soap wash and distilled water rinse before use in each well.

Measured depth to water in the wells ranged from 4.02 feet below TOC at MW1 to 4.75 feet below TOC at MW4. Based on depth to water measurements and well TOC survey data, the groundwater elevations at the monitoring wells ranged from 412.98 feet at monitoring MW2 to 415.23 feet at monitoring well MW4 (see Table 1 in Appendix B). Based on groundwater level measurements collected during Terracon's groundwater sampling event, the groundwater flow direction at the Site is generally toward the west at a horizontal gradient of approximately 0.02 feet per foot (ft/ft; see Exhibit 3 Groundwater Contour and Flow Map in Appendix A).

The groundwater samples were collected using a peristaltic pump and dedicated tubing. Prior to sample collection, each well was purged at a low flow rate (less than 500 milliliters per minute [mL/min]). During the purging process, groundwater quality parameters, including temperature, electrical conductivity (EC), pH, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP), were measured at regular intervals using a Horiba U-22 or equivalent water quality meter. Purging was considered complete when three consecutive readings for EC, pH, turbidity, DO, and ORP were observed within 10% of one-another.

Samples were collected using the peristaltic pump. The same low flow rate used for purging the wells was used for collecting the samples. The discharge from the peristaltic pump was directed

into laboratory-supplied glassware. The sample containers were labeled with the project number, date, time, well number, and sample number and placed in a chilled cooler immediately after sampling. The sample containers were subsequently transported to ALS Laboratory Group (ALS), a Washington-certified analytical laboratory, under strict chain-of-custody procedures.

4.0 ANALYTICAL RESULTS

Groundwater samples were analyzed for gasoline-range TPH by Northwest Method NWTPH-Gx, diesel- and oil-range TPH by Northwest Method NWTPH-Dx, and BTEX by EPA Method 8260.

Reported groundwater concentrations were compared with the MTCA Method A cleanup levels for unrestricted land use, as applicable, established under Chapter 70.105D Revised Code of Washington (RCW) and its implementing regulation, MTCA Chapter 173-340 Washington Administrative Code (WAC).

The laboratory analytical report and chain-of-custody record are attached in Appendix C. The following sections describe the results of the testing.

4.1 Groundwater Analytical Results

Gasoline-, Diesel- and Oil-Range TPH

Gasoline-range TPH was identified in the groundwater sample collected from monitoring well MW2 at a concentration of 600 µg/l. The detected concentration of gasoline-range TPH is below the MTCA Method A cleanup level of 800 µg/l (when benzene is present).

The remaining groundwater samples did not have reported concentrations of gasoline-, diesel-, or oil-range TPH above the laboratory method reporting limits (MRLs).

Benzene, Toluene, Ethylbenzene, and Total Xylenes

Benzene was identified in the groundwater sample collected from monitoring well MW2 at a concentration of 8.2 µg/l. The detected concentration of benzene is above the MTCA Method A cleanup level of 5 µg/l.

Ethylbenzene and total xylenes were identified in the groundwater sample collected from monitoring well MW2 at concentrations of 7.3 µg/l and 5.8 µg/l, respectively. The detected concentrations of ethylbenzene and total xylenes are below their MTCA Method A cleanup levels of 700 µg/l and 1,000 µg/l, respectively.

The remaining groundwater samples did not have reported concentrations of BTEX above laboratory MRLs. The groundwater analytical results are summarized in Table 1 of Appendix B.

4.2 Quality Assurance/Quality Control Results

The analytical results for the current investigation were checked for completeness upon receipt from the laboratory to ensure that data and quality assurance and quality control (QA/QC) information requested were present. Data quality was assessed by considering hold times, surrogate recovery, method blanks, matrix spike and matrix spike duplicate (MS/MSD) recovery, and detection limits. QA/QC review was completed using guidance described in *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (Draft Final, USEPA, 2005). Our evaluation assumes that the QA/QC is correct as reported by the laboratory, and merely provides an interpretation of the QA/QC results.

Based upon our interpretation of quality control information provided by the laboratories, it is our opinion that the overall dataset is useable as qualified for the purposes of this investigation.

5.0 INVESTIGATION DERIVED WASTES

Investigation derived wastes (IDW) generated during the groundwater monitoring activities, which consisted of equipment decontamination water and well purge water, were containerized in one Department of Transportation (DOT) approved 55-gallon drum, properly labeled, and temporarily staged onsite, pending receipt of laboratory analytical results. The IDW drum was staged on the east side of the grocery store building near the loading dock.

6.0 FINDINGS AND CONCLUSIONS

Based on the scope of services described in this report, and subject to the limitations described herein, Terracon concludes the following:

Groundwater monitoring wells MW1 through MW4 were sampled in December 2017. Measured depth to groundwater in the wells ranged from approximately 4 to 5 feet bgs, with a horizontal groundwater gradient toward the west.

Groundwater samples collected from the wells were analyzed for gasoline-, diesel-, and oil-range TPH; and for BTEX.

The groundwater sample collected from monitoring well MW2 contained benzene at a concentration of 8.2 µg/l, exceeding the MTCA Method a cleanup level of 5 µg/l. The remaining groundwater sample results were either below the laboratory MRLs or below the MTCA Method A cleanup levels.

7.0 RECOMMENDATIONS

Terracon recommends continuing groundwater sampling at the Site to monitor groundwater quality. Although low level concentrations of remnant gasoline-related contaminants were identified in the northwest corner of the property near well MW2, the concentrations do not appear to represent a risk to human health or the environment.

Terracon recommends that a copy of this Groundwater Monitoring Report be submitted to the TPCHD for review and comment, and that a copy of the report be submitted to the Ecology Southwest Regional Office.

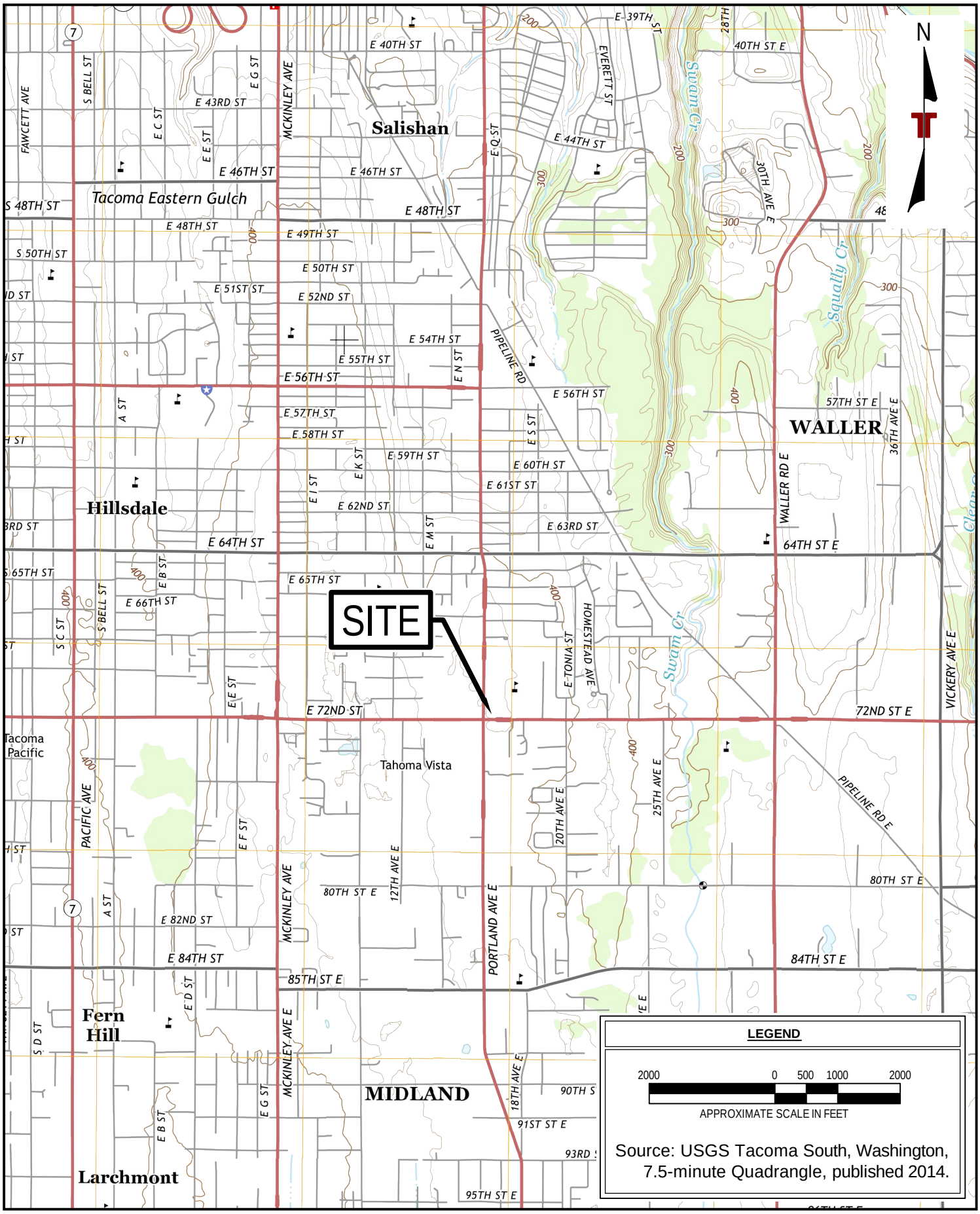
APPENDIX A - EXHIBITS

Exhibit 1 - Topographic Map

Exhibit 2 - Site Diagram

Exhibit 3 – Groundwater Contour & Flow Map – December 2017

Exhibit 4 – Groundwater Concentration Map



Project Mngr:	MDN
Drawn By:	AMP
Checked By:	MDN
Approved By:	MDN

Project No.	81167550
Scale:	AS SHOWN
File No.	Exhibit 1
Date:	January 2018

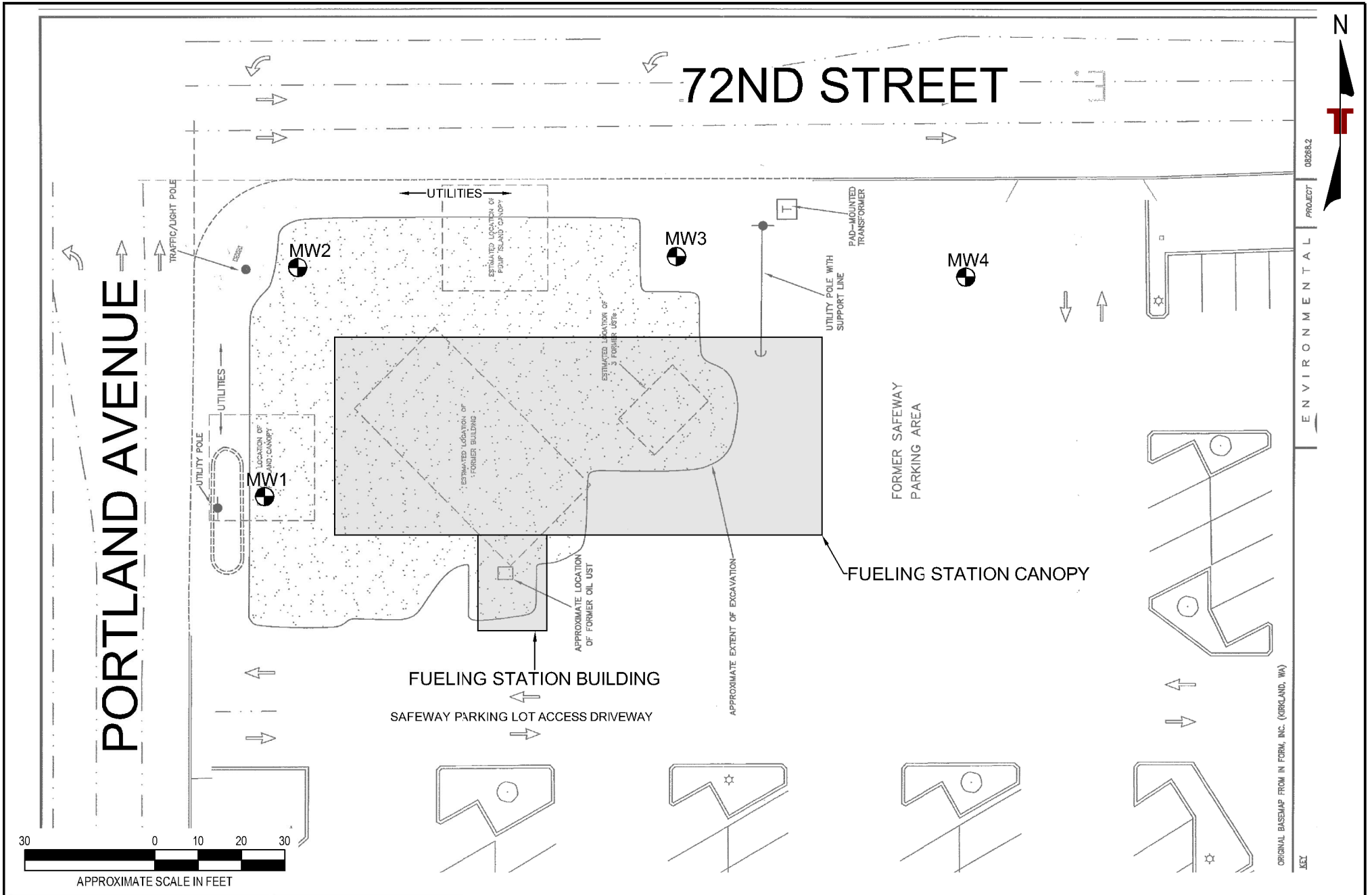
Terracon
Consulting Engineers and Scientists
21905 64th Avenue W., Ste 100 Mountlake Terrace, WA 98043
PH. (425) 771-3304 FAX. (425) 771-3549

TOPOGRAPHIC MAP

Safeway #1436 Fueling Station
7201 Portland Ave E
Tacoma, Pierce County, Washington

EXHIBIT

1



LEGEND

MW1 — APPROXIMATE LOCATION OF MONITORING WELL

Project Mngr:	MDN
Drawn By:	AMP
Checked By:	MDN
Approved By:	MDN
Project No.	81167550
Scale:	AS SHOWN
File No.	Exhibit 2
Date:	January 2018

Terracon
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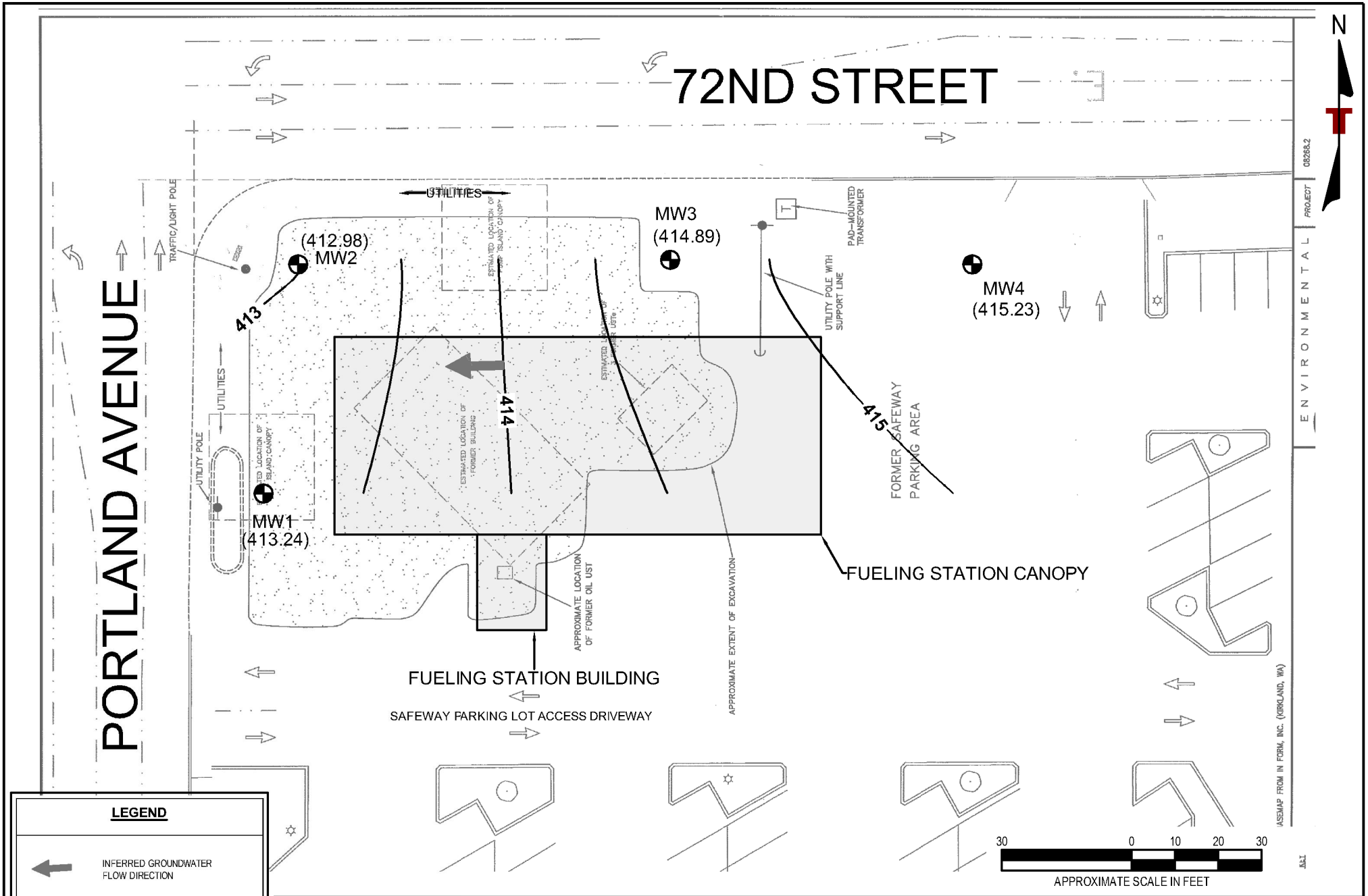
SITE DIAGRAM

Safeway #1436 Fueling Station
7201 Portland Ave E
Tacoma, Pierce County, Washington

EXHIBIT 2



LEGEND

- INFERRED GROUNDWATER FLOW DIRECTION
- MW1 (400) — APPROXIMATE LOCATION AND NUMBER OF PERMANENT GROUNDWATER MONITORING WELL, GROUNDWATER ELEVATION (FEET)
- 400 — GROUNDWATER CONTOUR ELEVATION (FEET)

Project Mngr:	MDN
Drawn By:	HRG
Checked By:	MDN
Approved By:	MDN
Project No.	81167550
Scale:	AS SHOWN
File No.	Exhibit 3
Date:	January 2018

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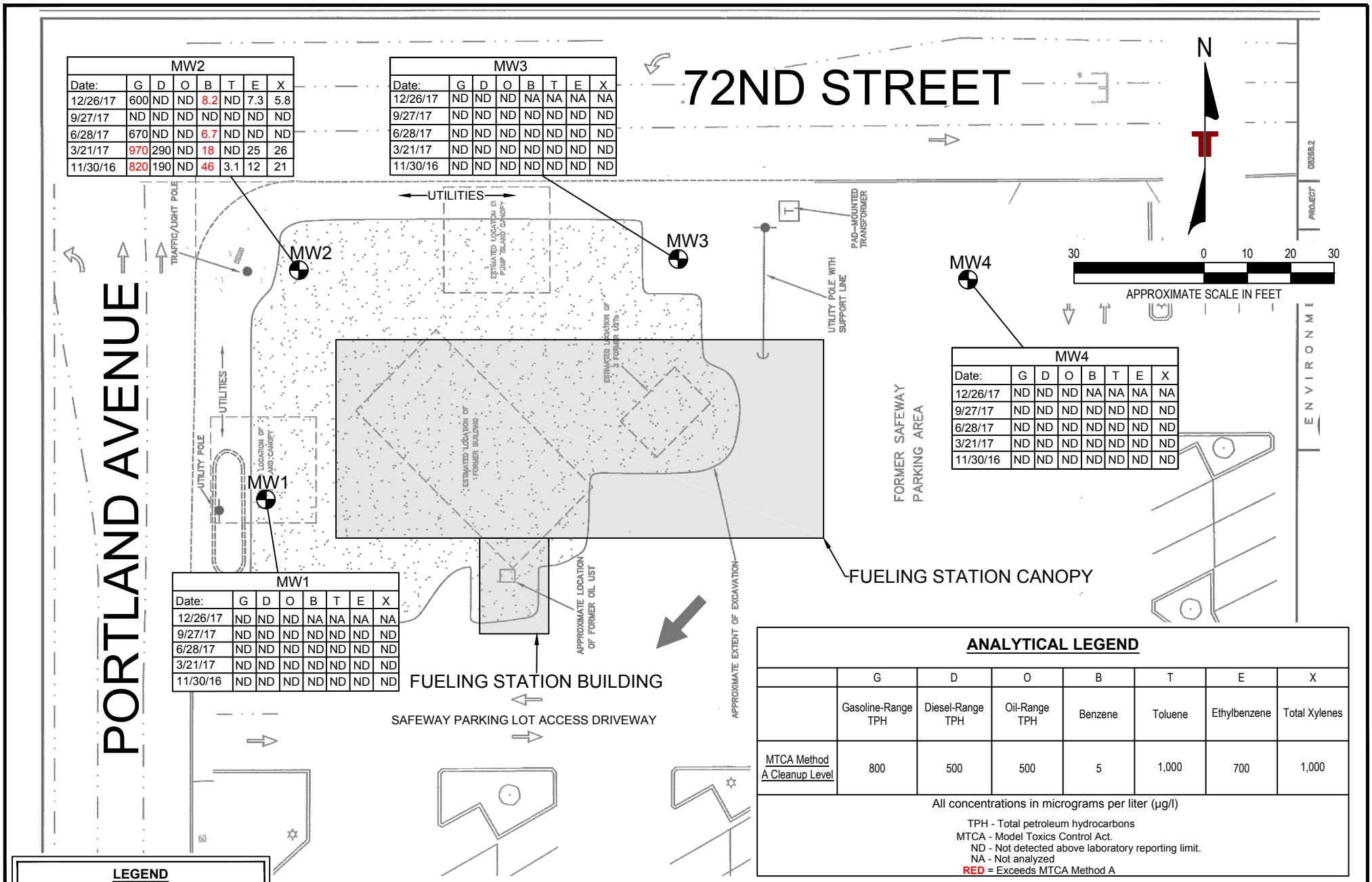
GROUNDWATER CONTOUR & FLOW MAP-DECEMBER 2017

Safeway #1436 Fueling Station
7201 Portland Ave E
Tacoma, Pierce County, Washington

EXHIBIT 3



MW2							
Date:	G	D	O	B	T	E	X
12/26/17	600	ND	ND	8.2	ND	7.3	5.8
9/27/17	ND	ND	ND	ND	ND	ND	ND
6/28/17	670	ND	ND	6.7	ND	ND	ND
3/21/17	970	290	ND	18	ND	25	26
11/30/16	820	190	ND	46	3.1	12	21

MW3							
Date:	G	D	O	B	T	E	X
12/26/17	ND	ND	ND	NA	NA	NA	NA
9/27/17	ND	ND	ND	ND	ND	ND	ND
6/28/17	ND	ND	ND	ND	ND	ND	ND
3/21/17	ND	ND	ND	ND	ND	ND	ND
11/30/16	ND	ND	ND	ND	ND	ND	ND

MW4							
Date:	G	D	O	B	T	E	X
12/26/17	ND	ND	ND	NA	NA	NA	NA
9/27/17	ND	ND	ND	ND	ND	ND	ND
6/28/17	ND	ND	ND	ND	ND	ND	ND
3/21/17	ND	ND	ND	ND	ND	ND	ND
11/30/16	ND	ND	ND	ND	ND	ND	ND

MW1							
Date:	G	D	O	B	T	E	X
12/26/17	ND	ND	ND	NA	NA	NA	NA
9/27/17	ND	ND	ND	ND	ND	ND	ND
6/28/17	ND	ND	ND	ND	ND	ND	ND
3/21/17	ND	ND	ND	ND	ND	ND	ND
11/30/16	ND	ND	ND	ND	ND	ND	ND

ANALYTICAL LEGEND

	G	D	O	B	T	E	X
	Gasoline-Range TPH	Diesel-Range TPH	Oil-Range TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level	800	500	500	5	1,000	700	1,000

All concentrations in micrograms per liter (µg/l)

TPH - Total petroleum hydrocarbons
MTCA - Model Toxics Control Act.
ND - Not detected above laboratory reporting limit.
NA - Not analyzed
RED = Exceeds MTCA Method A

LEGEND

MW1 — APPROXIMATE LOCATION OF MONITORING WELL

INFERRED GROUNDWATER FLOW DIRECTION

Project Mngr:	MDN
Drawn By:	HG
Checked By:	MDN
Approved By:	MDN
Project No.	81167550
Scale:	AS SHOWN
File No.	Exhibit 4
Date:	January 2018

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GROUNDWATER CONCENTRATION MAP

Safeway #1436 Fueling Station
7201 Portland Ave E
Tacoma, Pierce County, Washington

EXHIBIT 4

APPENDIX B - TABLES

Table 1-Summary of Groundwater Analytical Results

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Safeway #1436 Fueling Station
7201 Portland Avenue
Tacoma, Washington

all concentrations are in micrograms per liter (µg/l)

Well ID (Top of Casing Elevation [feet amsl])	Sample Date	Depth to Water (feet)	Ground-water Elevation (feet)	TPH			VOCs											
				Gasoline-Range	Diesel-Range	Oil-Range	Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	N-Propylbenzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	S-Butylbenzene	N-Butylbenzene	Naphthalene
MW1 (417.26)	12/26/2017	4.02	413.24	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	9/27/2017	6.65	410.61	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	6/28/2017	5.36	411.90	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
	3/21/2017	3.98	413.28	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	11/30/2016	5.43	411.83	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	--	--	--	--	--	--	--
MW2 (417.62)	12/26/2017	4.64	412.98	**600**	ND (<130)	ND (<250)	**8.2**	ND (<2)	**7.3**	**5.8**	--	--	--	--	--	--	--
	9/27/2017	4.88	412.74	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	6/28/2017	5.46	412.16	**670**	ND (<130)	ND (<250)	**6.7**	ND (<2)	ND (<2)	ND (<4)	**7.2**	**24**	ND (<2)	ND (<2)	**2.6**	ND (<2)	**2.3**
	3/21/2017	4.53	413.09	**970**	**290**	ND (<250)	**18**	ND (<2)	**25**	**26**	**12**	**29**	**3.1**	**4**	**3.1**	**12**	**4.5**
	11/30/2016	5.23	412.39	**820**	**190**	ND (<250)	**46**	**3.1**	**12**	**21**	--	--	--	--	--	--	--
MW3 (419.22)	12/26/2017	4.33	414.89	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	9/27/2017	6.88	412.34	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	6/28/2017	5.44	413.78	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
	3/21/2017	4.21	415.01	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	11/30/2016	5.82	413.40	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	--	--	--	--	--	--	--
MW4 (419.98)	12/26/2017	4.75	415.23	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	9/27/2017	7.99	411.99	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	6/28/2017	5.91	414.07	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	ND (<2)
	3/21/2017	4.64	415.34	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<4)	--	--	--	--	--	--	--
	11/30/2016	5.42	414.56	ND (<50)	ND (<130)	ND (<250)	ND (<2)	ND (<2)	ND (<2)	ND (<2)	--	--	--	--	--	--	--
MTCA Method A Cleanup Level				**800**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**800***	**80***	**NE**	**800***	**400***	**160**

Notes: Concentrations detected above laboratory method reporting limits (MRLs) are in **BOLD** type. Concentrations above MTCA cleanup levels are in red **BOLD** and shaded.

TPH - total petroleum hydrocarbons
VOCs - volatile organic compounds
MTCA - Model Toxics Control Act
ND - Not detected above laboratory reporting limit.
* - MTCA Method B Cleanup Level - Unrestricted land use. Referenced when a Method A cleanup level has not been established.
-- - Not analyzed and/or sampled

APPENDIX C – ANALYTICAL REPORT AND CHAIN OF CUSTODY FORM

December 29, 2017

Mr. Mike Noll
Terracon
21905 - 64th Ave W, Suite 100
Mountlake Terrace, WA 98043

Dear Mr. Noll,

On December 27th, 4 samples were received by our laboratory and assigned our laboratory project number EV17120161. The project was identified as your 81167550. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE: ALS JOB#: ALS SAMPLE#:	12/29/2017 EV17120161 EV17120161-01
CLIENT CONTACT:	Mike Noll	DATE RECEIVED:	12/27/2017
CLIENT PROJECT:	81167550	COLLECTION DATE:	12/26/2017 8:00:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/28/2017	SNC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/28/2017	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/28/2017	EBS
Benzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	12/29/2017	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.3**	12/28/2017	SNC
C25	NWTPH-DX	**97.9**	12/28/2017	EBS
Toluene-d8	EPA-8260	**98.1**	12/29/2017	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE: ALS JOB#: ALS SAMPLE#:	12/29/2017 EV17120161 EV17120161-02
CLIENT CONTACT:	Mike Noll	DATE RECEIVED:	12/27/2017
CLIENT PROJECT:	81167550	COLLECTION DATE:	12/26/2017 8:35:00 AM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**600**	50	1	UG/L	12/29/2017	SNC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/28/2017	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/28/2017	EBS
Benzene	EPA-8260	**8.2**	2.0	1	UG/L	12/29/2017	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Ethylbenzene	EPA-8260	**7.3**	2.0	1	UG/L	12/29/2017	DLC
m,p-Xylene	EPA-8260	**5.8**	4.0	1	UG/L	12/29/2017	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**112**	12/29/2017	SNC
C25	NWTPH-DX	**94.5**	12/28/2017	EBS
Toluene-d8	EPA-8260	**99.4**	12/29/2017	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered gasoline.

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CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE: ALS JOB#: ALS SAMPLE#:	12/29/2017 EV17120161 EV17120161-03
CLIENT CONTACT:	Mike Noll	DATE RECEIVED:	12/27/2017
CLIENT PROJECT:	81167550	COLLECTION DATE:	12/26/2017 9:00:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/28/2017	SNC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/28/2017	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/28/2017	EBS
Benzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	12/29/2017	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.1**	12/28/2017	SNC
C25	NWTPH-DX	**78.7**	12/28/2017	EBS
Toluene-d8	EPA-8260	**99.5**	12/29/2017	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE: ALS JOB#: ALS SAMPLE#:	12/29/2017 EV17120161 EV17120161-04
CLIENT CONTACT:	Mike Noll	DATE RECEIVED:	12/27/2017
CLIENT PROJECT:	81167550	COLLECTION DATE:	12/26/2017 9:30:00 AM
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/28/2017	SNC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/28/2017	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/28/2017	EBS
Benzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	12/29/2017	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	12/29/2017	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.0**	12/28/2017	SNC
C25	NWTPH-DX	**78.0**	12/28/2017	EBS
Toluene-d8	EPA-8260	**97.9**	12/29/2017	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE:	12/29/2017
		ALS SDG#:	EV17120161
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Mike Noll		
CLIENT PROJECT:	81167550		

LABORATORY BLANK RESULTS

MBG-122117W2 - Batch 123738 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	12/21/2017	SNC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-122717W - Batch 123872 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	12/27/2017	EBS
TPH-Oil Range	NWTPH-DX	U	UG/L	250	12/27/2017	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-122817W - Batch 123913 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	12/28/2017	DLC
Benzene	EPA-8260	U	UG/L	2.0	12/28/2017	DLC
Toluene	EPA-8260	U	UG/L	2.0	12/28/2017	DLC
Ethylbenzene	EPA-8260	U	UG/L	2.0	12/28/2017	DLC
m,p-Xylene	EPA-8260	U	UG/L	4.0	12/28/2017	DLC
o-Xylene	EPA-8260	U	UG/L	2.0	12/28/2017	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Terracon 21905 - 64th Ave W, Suite 100 Mountlake Terrace, WA 98043	DATE:	12/29/2017
		ALS SDG#:	EV17120161
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Mike Noll		
CLIENT PROJECT:	81167550		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 123738 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**80.4**			66.5	122.7	12/21/2017	SNC
TPH-Volatile Range - BSD	NWTPH-GX	**78.0**	**3**		66.5	122.7	12/21/2017	SNC

ALS Test Batch ID: 123872 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**83.9**			67	125.2	12/27/2017	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**83.5**	**1**		67	125.2	12/27/2017	EBS

ALS Test Batch ID: 123913 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	**93.8**			72.5	136	12/28/2017	DLC
1,1-Dichloroethene - BSD	EPA-8260	**95.5**	**2**		72.5	136	12/28/2017	DLC
Benzene - BS	EPA-8260	**100**			74.7	143	12/28/2017	DLC
Benzene - BSD	EPA-8260	**102**	**2**		74.7	143	12/28/2017	DLC
Toluene - BS	EPA-8260	**98.8**			71.7	139	12/28/2017	DLC
Toluene - BSD	EPA-8260	**100**	**1**		71.7	139	12/28/2017	DLC

APPROVED BY

Laboratory Director

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ALS Group USA, Corp dba ALS Environmental

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV1712016 1

Date 12/26/17 Page 1 Of 1

PROJECT ID: 81167550
REPORT TO COMPANY: Terracon Consultants Inc. (TC)
PROJECT MANAGER: Mike Noll
ADDRESS: 21905 64th Ave W. Suite 100.
Mountlake Terrace, WA, 98043
PHONE: 425-771-3304 P.O. #:
E-MAIL: Mike.Noll@Terracon.com
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐ BTEX by EPA 8260 ☒	MTBE by EPA 8021 ☐ MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐ Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	12/26/17	800	GW			X	X	X														
2. MW-2	↓	835				X	X	X														
3. MW-3		900	↓			X	X	X														
4. MW-4	↓	930				X	X	X														
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] Terracon 12/27/17 6:30
   Received By: Trent Tolton, ALS, 12/27/17, 1507
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

*Turnaround request less than standard may incur Rush Charges