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February 26, 2014

Project No. 146714

Department of Ecology
Heather Vick (TCP)
3190 160th Ave. SE
Bellevue, WA 98008-5452

Re: Annual Groundwater Monitoring Report – 2013
AT&T Data Center - 20307 North Creek Parkway, Bothell, Washington
Department of Ecology TCP# NW2011, ID# 3706871

Dear Ms. Vick:

Shaw Environmental, Inc. (a CB&I company) is pleased to present the results of the 2013 groundwater monitoring conducted at the AT&T Bothell Facility (Site) located at 20307 North Creek Parkway, Bothell, Washington (Figure 1). Two semi-annual groundwater monitoring events were performed in 2013 to assess the progress of remedial actions at the Site.. The following sections summarize the historical activities conducted at the Site, the site geology and hydrogeology, the groundwater sampling activities, laboratory results, conclusions, and recommendations for the Site.

SITE HISTORY

The AT&T Data Center is located in the northwest corner of the Schnitzer North Creek development in Bothell, Washington. North Creek Parkway borders the east side of the Site and Interstate 405 borders the west side. The property is largely paved and contains three office buildings and a generator building. The property is approximately 8.13 acres and is situated within N1/2, NE1/4, Section 5, T26N, R5E, King County, Washington. The facility, currently owned by AT&T, is zoned for commercial/industrial use.

In August 2008, approximately 15,000 gallons of diesel fuel was released from the aboveground storage tanks located adjacent to the west wall of the generator building. The initial response and subsequent remedial activities were successful in containing subsurface diesel impacts within AT&T property boundaries. The results are detailed in a Shaw Environmental & Infrastructure, report entitled *Emergency Response and Remedial Activities Report* (ERRAR), dated January 2010.

A total of eight groundwater monitoring wells were installed during and after the emergency response activities to determine the magnitude and extent of groundwater impact. An impermeable liner was installed in the remedial excavation to prevent diesel-contaminated water from entering the backfill of the stormwater line and/or the line itself. Ten extraction wells were installed upgradient of the impermeable liner to provide access for the recovery of contaminated water. The ERRAR report includes details about the spill cleanup, monitoring well and extraction well installation, the initial round

of groundwater sampling conducted on October 2, 2008, and four quarters of groundwater sampling conducted during 2009.

Groundwater analytical results from the 2009 through the 2012 sampling events indicate no detections above laboratory method reporting limits or MTCA Method A Groundwater Cleanup Levels for total petroleum hydrocarbons (TPH) as diesel (TPH-D), TPH as oil (TPH-O), or benzene, toluene, ethyl benzene, and xylenes (BTEX) in groundwater from perimeter wells MW-1 through MW-7.

Groundwater analytical results in well MW-8 (installed January 5, 2009 near the spill area) had TPH-D results ranging from 1,030 to 2,900 micrograms per liter (µg/L), (above the MTCA Method A Groundwater Cleanup level of 500 µg/L). Benzene concentrations ranged from non-detect (ND) to 86.3 µg/L (benzene was above the MTCA Method A Groundwater Cleanup Level of 5 µg/L in six of the ten sampling events). Total xylenes results were 1,000 µg/L in 2009. The MTCA Method A Groundwater Cleanup Levels for total xylenes is 1,000 µg/L. . The groundwater flow direction during all previous sampling events was to the south or southeast.

SITE GEOLOGY AND HYDROGEOLOGY

The Site is located in the North Creek basin, which is typically underlain by floodplain and alluvial deposits consisting of inter-bedded organic silt, peat, and sand. Above these deposits is medium dense to dense sand fill imported during site development. The organic silt and peat at the subject site is typically encountered at a depth of 2 to 10 feet below ground surface (bgs) and extends to depths ranging from 20 to 65 feet bgs.

Shallow groundwater is present beneath the site and ranges in depth from approximately 2 to 8 feet bgs. The groundwater is generally present in the fill material and is perched atop the peat layer. The groundwater fluctuates considerably with precipitation, seasons, and the level of nearby North Creek. The maximum thickness of the saturated zone is expected to occur during the winter months of December, January, and February. Groundwater elevation data indicates the general direction of flow of the shallow groundwater is to the south-southeast.

SEMI-ANNUAL GROUNDWATER MONITORING 2013

Semi-annual groundwater monitoring was conducted during the months of March and October, 2013. The location of the eight groundwater monitoring wells, MW-1 through MW-8, and the three observation wells, identified as OW-1 through OW-3, are shown on Figure 2.

March 2013 Groundwater Monitoring Event

The first 2013 semi-annual groundwater monitoring event was performed on March 1 and 4, 2013. The groundwater flow direction during the monitoring event (as measured on March 4, 2013) was to the south southeast as shown on Figure 3. This gradient remains consistent with previous monitoring events. Monitoring wells MW-4 and MW-7 were not used in the gradient evaluation due to high water

levels. Groundwater sampling was performed using low-flow sampling techniques. The depth to water was measured and recorded; the wells were then purged and sampled with a portable peristaltic pump system fitted with dedicated polyethylene and silicon tubing. During well purging, field water quality parameters (temperature, pH, specific conductance, dissolved oxygen [DO], oxidation reduction potential [ORP], and turbidity) were measured approximately every five minutes and recorded on field sampling data sheets (FSDSs). The wells were purged until the field water quality parameters stabilized after three successive measurements to within 10 percent for field conductivity, DO, and ORP, and temperature. Groundwater samples were then collected directly into laboratory-supplied containers from the pump discharge tubing, labeled, and placed in a chilled cooler.

The monitoring well samples were submitted under chain-of-custody documentation to TestAmerica Seattle in Tacoma, Washington, for analysis of TPH-D and TPH-O by Ecology Method NWTPH-Dx with silica gel cleanup and BTEX by EPA Method 8260B. The laboratory report for groundwater sampling is provided in Attachment 1; copies of the Field Sampling Data Sheets (FSDSs) are provided in Attachment 2.

Groundwater analytical results indicated there were no TPH-D, TPH-O, or BTEX concentrations above laboratory method reporting limits in groundwater samples collected from perimeter wells MW-1 through MW-7. The groundwater sample collected from well MW-8 had a TPH-D concentration of 1,800 µg/L, above the MTCA Method A Groundwater Cleanup Level of 500 µg/L. A benzene concentration of 1.1 µg/L was also detected, below the MTCA Method A Groundwater Cleanup Level of 5 µg/L. Ethylbenzene was detected at a concentration of 7 µg/L, also below the MTCA Method A Groundwater Cleanup Level of 700 µg/L. Total xylenes were detected at 30 µg/L, below the MTCA Method A Groundwater Cleanup Level of 1,000 µg/L. The groundwater elevation summary and analytical results are presented in Table 1.

October 2013 Groundwater Monitoring Event

The second 2013 semi-annual groundwater monitoring event was performed on October 8 and 9, 2013. The groundwater flow direction as measured on October 8, 2013, was to the south-southeast as shown on Figure 4. This gradient remains consistent with previous monitoring events. Groundwater sampling was performed using low-flow sampling techniques. The depth to water was measured and recorded; the wells were then purged and sampled with a portable peristaltic pump system fitted with dedicated polyethylene and silicon tubing. During well purging, field water quality parameters (temperature, pH, specific conductance, DO, ORP, and turbidity) were measured approximately every five minutes and recorded on FSDSs. The wells were purged until the field water quality parameters stabilized after three successive measurements to within 10 percent for field conductivity, DO, and ORP, temperature. Groundwater samples were then collected directly into laboratory-supplied containers from the pump discharge tubing, labeled, and placed in a chilled cooler.

The monitoring well samples were submitted under chain-of-custody documentation to Pace Analytical in Minneapolis, Minnesota, for analysis of TPH-D and TPH-O by Ecology Method NWTPH-Dx with silica gel cleanup and BTEX by EPA Method 8260. The laboratory report for groundwater sampling is provided in Attachment 3; copies of the FSDSs are provided in Attachment 4.

Groundwater analytical results indicated there were no TPH-D, TPH-O, or BTEX concentrations above laboratory method reporting limits in groundwater samples collected from wells MW-1 through MW-7 during the October 2013 groundwater sampling event. MW-2, however, had a toluene detection of 1.8 µg/L, well below the MTCA Method A Groundwater Cleanup Level of 1,000 µg/L. Benzene, ethylbenzene, and xylenes were not detected in MW-2.

The groundwater sample collected from well MW-8 had a TPH-D concentration of 2,200 µg/L, above the MTCA Method A Groundwater Cleanup Level of 500 µg/L. Ethylbenzene was detected at 1.1 µg/L, below the MTCA Method A Groundwater Cleanup Level of 700 µg/L. TPH-O, benzene, toluene and xylenes were not detected above laboratory recording limits in MW-8 during this sampling event.

Groundwater elevation summaries and analytical results are presented in Table 1.

SUMMARY OF DEPTH TO GROUNDWATER AND SPH MEASUREMENT EFFORTS IN 2013

CB&I monitored groundwater and separate-phase hydrocarbons (SPH) levels in 10 extraction wells (EW-1 through EW-10), throughout 2013 (Figure 2). Based upon those measurements, groundwater and SPH was pumped from the specified wells. A temporary, on-site, 18,000-gallon frac tank for storage prior to disposal was onsite January through June.

A new continuous operation groundwater remediation system began operation July 29, 2013. The groundwater recovery and treatment system consists of two pneumatic groundwater recovery pumps powered by a 5 horsepower air compressor. The extracted groundwater is pumped to an oil/water separator (OWS) that separates free phase diesel or SPH from the groundwater. The OWS can handle up to 20 gallons per minute (gpm). Any SPH that collects in the OWS gravity flows into a 120-gallon product holding tank located on the OWS skid, within secondary containment. The groundwater effluent is discharged to the sanitary sewer.

A Discharge Authorization to allow discharge of pumped groundwater into the sanitary sewer was acquired from King County and the City of Bothell. As part of the sewer permit, a report is prepared semi-annually that includes monthly discharge volumes and semi-annual grab samples which are analyzed for BTEX and NWTPH-Dx with silica gel cleanup. The Discharge Authorization allows a discharge of up to 25,000 gallons per day.

CB&I also monitored interior observation wells and piezometers (OW-1 through OW-3 and B-19 through B-28), throughout 2013. SPH was pumped weekly in the fourth quarter from observation wells and piezometers inside the generator building. The purged SPH was placed in the 120-gallon product holding tank on the OWS skid.

For ease of presentation, the groundwater/ SPH monitoring and pumping is divided into four quarters. The results of each quarter are summarized below.

First Quarter 2013 Groundwater/SPH Monitoring and Pumping Results

CB&I monitored groundwater and SPH levels during the first quarter (January 1 through March 31, 2013) in a select number of the extraction wells at the Site. The results of the first quarter 2013

monitoring showed that no measurable SPH (greater than 0.005 feet) had accumulated in any of the wells. The extraction well depth to water and SPH thickness data is included in Table 2.

Groundwater levels typically remain elevated during the first quarter of the year. During the first quarter there were no groundwater extraction events and no SPH pumping was performed at the Site.

Second Quarter 2013 Groundwater/SPH Monitoring and Pumping Results

CB&I monitored groundwater and SPH levels during the second quarter (April 1 through June 30, 2013) in a select number of the extraction wells at the Site. The results of the second quarter 2013 monitoring showed that no measurable SPH (greater than 0.005 feet) had accumulated in any of the wells. The extraction well depth to water and SPH thickness data is included in Table 3.

Groundwater levels typically remained slightly elevated during the second quarter, and started to decline towards the end of the quarter. During the second quarter there were no groundwater extraction events and no SPH pumping was performed at the Site.

Third Quarter 2013 Groundwater/SPH Monitoring and Pumping Results

CB&I monitored groundwater and SPH levels during the third quarter (July 1 through September 30, 2013) in a select number of the extraction wells at the Site. The results of the third quarter 2013 monitoring showed that with the exception of 0.01 feet of SPH encountered in EW-4 (September 23, 2013), no measurable SPH (greater than 0.005 feet) had accumulated in any of the wells. The SPH accumulation in EW-4 is related to the drawdown of groundwater from the extraction system. The extraction well depth to water and SPH thickness data are included in Table 4.

Groundwater levels declined during the third quarter as a result of the new groundwater extraction system which began operation on July 29, 2013.

The third quarter total volume of water extracted at the Site was 280,032 gallons from EW-3 and EW-6. No SPH pumping was performed during the quarter. The groundwater pumping data is included in Table 6.

Fourth Quarter 2013 Groundwater/SPH Monitoring and Pumping Results

CB&I monitored groundwater and SPH levels during the fourth quarter (October 1 through December 31, 2013) in a select number of the extraction wells at the Site. The results of the fourth quarter 2013 monitoring showed that measurable SPH had accumulated in EW-4 (0.020 feet) as measured on November 12, 2013. The extraction well SPH thickness data is included in Table 5.

Groundwater levels typically rose through October, and stayed consistently high through November and December. The fourth quarter total volume of water extracted at the Site was 279,370 gallons from EW-3 and EW-6. No SPH pumping was performed during the quarter. The groundwater pumping data is included in Table 6.

SPH removal was conducted inside the Generator Building beginning on October 8, 2013 and continued through the end of 2013. SPH and groundwater were recovered from the piezometers and observation

wells if SPH was present greater than 0.03 feet thick. A peristaltic pump and tubing were used to pump the SPH/groundwater into a graduated cylinder; the totals of each liquid were recorded once a recoverable amount of SPH was no longer achievable. Readings were recorded and the SPH/groundwater mixture was transferred to the new OWS product tank for future disposal. Table 7 shows the volumes recovered from each of the observation wells/piezometers in the generator building; approximately 0.61 gallons of SPH were removed during the fourth quarter of 2013.

CONCLUSIONS

The following results are based on the analytical data collected during the 2013 semi-annual groundwater monitoring:

The March 3013 groundwater analytical results indicated:

- TPH-D, TPH-O, or BTEX concentrations were not detected above MTCA Method A Groundwater Cleanup Levels in groundwater samples collected from wells MW-1 through MW-7.
- TPH-D, benzene, ethylbenzene and xylenes were detected in MW-8, with only TPH-D (diesel) exceeding the MTCA Method A Groundwater Cleanup Level.

The October 2013 groundwater analytical results indicated:

- TPH-D and TPH-O concentrations were note detected above MTCA Method A Groundwater Cleanup Levels in groundwater samples collected from wells MW-1 through MW-7.
- Toluene was detected in MW-2 at 1.8 µg/L; below the MTCA Method A Groundwater Cleanup Level of 1,000 µg/L. This is the first such detection in this well.
- TPH-D was detected in MW-8 at 2,200 µg/L; above MTCA Method A Groundwater Cleanup Level of 500 µg/L.
- Ethylbenzene was detected in MW-8 at 1.1 µg/L; below the MTCA Method A Groundwater Cleanup Level of 700 µg/L.

Groundwater analytical results in MW-8 (installed near the spill area) indicate that groundwater continues to be impacted with TPH-D above the MTCA Method A Groundwater Cleanup Level of 500 µg/L. Benzene, ethylbenzene and xylenes were also present during the March 2013 sampling event, however all detected concentrations were below the MTCA Method A Groundwater Cleanup Levels.

A total of 559,402 gallons of groundwater were removed during the third and fourth quarters and treated in the new onsite OWS system. The water was then discharged to the sanitary sewer under the King County Discharge Authorization.

A total of 0.61 gallons of SPH were removed from the observation wells and piezometers in the generator building during the fourth quarter of 2013.

RECOMMENDED ACTIONS

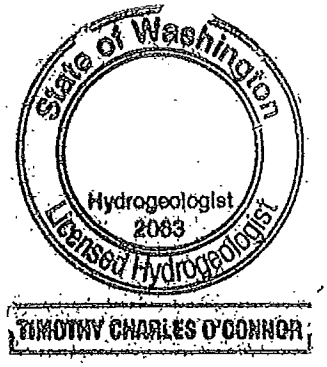
Based on the findings of the semi-annual groundwater monitoring events, CB&I recommends continued semi-annual groundwater monitoring. Analytical parameters will include NWTPH-Dx for diesel- and oil-range petroleum hydrocarbons with silica gel cleanup and EPA Method 8260B for BTEX; together with pH, DO, ORP, turbidity, and depth-to-water measurements. Semi-annual groundwater monitoring will continue, with annual groundwater monitoring reports submitted to the Department of Ecology.

If you have any questions or require additional information, please do not hesitate to contact me at 425.402.3252 or via email at tim.oconnor@CBI.com

Sincerely,

CB&I

Tim O'Connor, LG, LHG
Senior Project Geologist



Tables:
1 Groundwater Elevation Summary and Analytical Results (2009 - 2013)
2 Groundwater Depth/SPH Thickness (Extraction Wells), First Quarter 2013
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4 Groundwater Depth/SPH Thickness (Extraction Wells), Third Quarter 2013
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6 Groundwater/SPH Pumping (First, Second, Third, and Fourth Quarters, 2013)
7 Volume of SPH Removed from Extraction Wells, 2013

Figures:
1 Area Location Map
2 Groundwater Monitoring, Extraction, and Observation Well Location Map
3 Groundwater Contour Map – March 4, 2013
4 Groundwater Contour Map – October 8, 2013

Attachments:
1 March 1 and 4, 2013, Analytical Report
2 March 1 and 4, 2013, Field Sampling Data Sheet
3 October 8 and 9, 2013 Field Sampling Analytical Reports
4 October 8 and 92013, Field Sampling Data Sheets

cc: Mr. Mark Smith; AT&T Services, Inc.
308 South Akard, Suite 1700
Dallas, Texas 75202

Tables

Table 1
Groundwater Elevation Summary and Analytical Results (2009 through 2013)

Monitoring Well Number	Date	Depth to Water (feet)[a]	Depth to SPH (feet)	SPH Thickness (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	Contaminant					
							TPH-D[b]	TPH-O[b]	Benzene[c]	Toluene[c]	Ethyl benzene[c]	Total Xylene[c]
GCLs							500	500	5	1,000	700	1,000
MW-1	01/12/2009	2.89	ND	—	36.12	33.23	ND	ND	ND	ND	ND	ND
	04/08/2009	3.72	ND	—	36.12	32.4	ND	ND	ND	ND	ND	ND
	07/08/2009	4.41	ND	—	36.12	31.71	ND	ND	ND	ND	ND	ND
	10/28/2009	3.34	ND	—	36.12	32.78	ND	ND	ND	ND	ND	ND
	04/06/2010	4.07	ND	—	36.12	32.05	ND	ND	ND	ND	ND	ND
	10/06/2010	4.59	ND	—	36.12	31.53	ND	ND	ND	1.6	ND	ND
	03/10/2011	1.68	ND	—	36.12	34.44	ND	ND	ND	ND	ND	ND
	09/15/2011	4.87	ND	—	36.12	31.25	ND	ND	ND	ND	ND	ND
	03/15/2012	0.99	ND	—	36.12	35.13	ND	ND	ND	ND	ND	ND
	10/05/2012	4.88	ND	—	36.12	31.24	170Y[e]	360Y[e]	ND	ND	ND	ND
	03/01/2013	2.71	ND	—	36.12	33.41	ND	ND	ND	ND	ND	ND
	10/08/2013	3.45	ND	—	36.12	32.67	ND	ND	ND	ND	ND	ND
MW-2	01/12/2009	4.37	ND	—	35.55	31.18	ND	ND	ND	ND	ND	ND
	04/08/2009	5.05	ND	—	35.55	30.5	ND	ND	ND	ND	ND	ND
	07/08/2009	5.91	ND	—	35.55	29.64	ND	ND	ND	ND	ND	ND
	10/28/2009	4.65	ND	—	35.55	30.9	ND	ND	ND	ND	ND	ND
	04/06/2010	5.24	ND	—	35.55	30.31	ND	ND	ND	ND	ND	ND
	10/06/2010	5.94	ND	—	35.55	29.61	ND	ND	ND	ND	ND	ND
	03/10/2011	4.32	ND	—	35.55	31.23	ND	ND	ND	ND	ND	ND
	09/15/2011	5.99	ND	—	35.55	29.56	ND	ND	ND	ND	ND	ND
	03/15/2012	4.32	ND	—	35.55	31.23	ND	ND	ND	ND	ND	ND
	10/05/2012	6.05	ND	—	35.55	29.5	120Y[e]	ND	ND	ND	ND	ND
	03/01/2013	5.20	ND	—	35.55	30.35	ND	ND	ND	ND	ND	ND
	10/08/2013	5.88	ND	—	35.55	29.67	ND	ND	ND	1.8	ND	ND
MW-3	01/12/2009	2.99	ND	—	34.75	31.76	ND	ND	ND	ND	ND	ND
	04/08/2009	3.41	ND	—	34.75	31.34	ND	ND	ND	ND	ND	ND
	07/08/2009	4.37	ND	—	34.75	30.38	ND	ND	ND	ND	ND	ND
	10/28/2009	3.26	ND	—	34.75	31.49	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Elevation Summary and Analytical Results (2009 through 2013)

Monitoring Well Number	Date	Depth to Water (feet)[a]	Depth to SPH (feet)	SPH Thickness (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	Contaminant					
							TPH-D[b]	TPH-O[b]	Benzene[c]	Toluene[c]	Ethyl benzene[c]	Total Xylene[c]
GCLs							500	500	5	1,000	700	1,000
MW-3	04/06/2010	3.56	ND	—	34.75	31.19	ND	ND	ND	ND	ND	ND
	10/06/2010	4.25	ND	—	34.75	30.5	ND	ND	ND	ND	ND	ND
	03/10/2011	2.58	ND	—	34.75	32.17	ND	ND	ND	ND	ND	ND
	09/15/2011	4.28	ND	—	34.75	30.47	ND	ND	ND	ND	ND	ND
	03/15/2012	2.49	ND	—	34.75	32.26	ND	ND	ND	ND	ND	ND
	10/05/2012	3.84	ND	—	34.75	30.91	ND	ND	ND	ND	ND	ND
	03/04/2013	3.34	ND	—	34.75	31.41	ND	ND	ND	ND	ND	ND
	10/08/2013	4.00	ND	—	34.75	30.75	ND	ND	ND	ND	ND	ND
MW-4	01/12/2009	1.56	ND	—	35.26	33.7	ND	ND	ND	ND	ND	ND
	04/08/2009	1.63	ND	—	35.26	33.63	ND	ND	ND	ND	ND	ND
	07/08/2009	2.12	ND	—	35.26	33.14	ND	ND	ND	ND	ND	ND
	10/28/2009	1.79	ND	—	35.26	33.47	ND	ND	ND	ND	ND	ND
	04/06/2010	2.89	ND	—	35.26	34.37	ND	ND	ND	ND	ND	ND
	10/06/2010	1.9	ND	—	35.26	33.36	ND	ND	ND	ND	ND	ND
	03/10/2011	1.23	ND	—	35.26	34.03	ND	ND	ND	ND	ND	ND
	09/15/2011	2.12	ND	—	35.26	33.14	ND	ND	ND	ND	ND	ND
	03/15/2012	1.29	ND	—	35.26	33.97	ND	ND	ND	ND	ND	ND
	10/05/2012	1.75	ND	—	35.26	33.51	ND	ND	ND	ND	ND	ND
	03/04/2013	1.78	ND	—	35.26	33.48	ND	ND	ND	ND	ND	ND
	10/09/2013	1.93	ND	—	35.26	33.33	ND	ND	ND	ND	ND	ND
MW-5	01/12/2009	4.22	ND	—	38.23	34.01	ND	ND	ND	ND	ND	ND
	04/08/2009	4.39	ND	—	38.23	33.84	ND	ND	ND	ND	ND	ND
	07/08/2009	4.98	ND	—	38.23	33.25	ND	ND	ND	ND	ND	ND
	10/28/2009	4.28	ND	—	38.23	33.95	ND	ND	ND	ND	ND	ND
	04/06/2010	5.62	ND	—	38.23	32.61	ND	ND	ND	ND	ND	ND
	10/06/2010	4.5	ND	—	38.23	33.73	ND	ND	ND	ND	ND	ND
	03/11/2011	4.19	ND	—	38.23	34.04	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Elevation Summary and Analytical Results (2009 through 2013)

Monitoring Well Number	Date	Depth to Water (feet)[a]	Depth to SPH (feet)	SPH Thickness (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	Contaminant					
							TPH-D[b]	TPH-O[b]	Benzene[c]	Toluene[c]	Ethyl benzene[c]	Total Xylene[c]
GCLs							500	500	5	1,000	700	1,000
MW-5	09/15/2011	4.99	ND	—	38.23	33.24	ND	ND	ND	ND	ND	ND
	03/15/2012	4.19	ND	—	38.23	34.04	ND	ND	ND	ND	ND	ND
	10/05/2012	5.01	ND	—	38.23	33.22	390Y[e]	420Y[e]	ND	ND	ND	ND
	03/04/2013	4.41	ND	—	38.23	33.82	ND	ND	ND	ND	ND	ND
	10/09/2013	4.68	ND	—	38.23	33.55	ND	ND	ND	ND	ND	ND
MW-6	01/12/2009	4.42	ND	—	36.7	32.28	ND	ND	ND	ND	ND	ND
	04/08/2009	4.38	ND	—	36.7	32.32	ND	ND	ND	ND	ND	ND
	07/08/2009	4.7	ND	—	36.7	32	ND	ND	ND	ND	ND	ND
	10/28/2009	4.18	ND	—	36.7	32.52	ND	ND	ND	ND	ND	ND
	04/06/2010	3.95	ND	—	36.7	32.75	ND	ND	ND	ND	ND	ND
	10/06/2010	4.31	ND	—	36.7	32.39	ND	ND	ND	ND	ND	ND
	03/10/2011	3.57	ND	—	36.7	33.13	ND	ND	ND	ND	ND	ND
	09/15/2011	4.73	ND	—	36.7	31.97	ND	ND	ND	ND	ND	ND
	03/15/2012	3.4	ND	—	36.7	33.3	ND	ND	ND	ND	ND	ND
	10/05/2012	4.73	ND	—	36.7	31.97	ND	ND	ND	ND	ND	ND
	03/04/2013	3.68	ND	—	36.7	33.02	ND	ND	ND	ND	ND	ND
	10/09/2013	4.01	ND	—	36.7	32.69	ND	ND	ND	ND	ND	ND
MW-7	01/12/2009	2.22	ND	—	35.8	33.58	ND	ND	ND	ND	ND	ND
	04/08/2009	2.32	ND	—	35.8	33.48	ND	ND	ND	ND	ND	ND
	07/08/2009	3.16	ND	—	35.8	32.64	ND	ND	ND	ND	ND	ND
	10/28/2009	2.48	ND	—	35.8	33.32	ND	ND	ND	ND	ND	ND
	04/06/2010	2.82	ND	—	35.8	32.98	ND	ND	ND	ND	ND	ND
	10/06/2010	3.16	ND	—	35.8	32.64	ND	ND	ND	ND	ND	ND
	03/11/2011	1.71	ND	—	35.8	34.09	ND	ND	ND	ND	ND	ND
	09/15/2011	3.38	ND	—	35.8	32.42	ND	ND	ND	ND	ND	ND
	03/15/2012	1.38	ND	—	35.8	34.42	ND	ND	ND	ND	ND	ND
	10/05/2012	3.58	ND	—	35.8	32.22	ND	ND	ND	ND	ND	ND
	03/04/2013	2.74	ND	—	35.8	33.06	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Elevation Summary and Analytical Results (2009 through 2013)

Monitoring Well Number	Date	Depth to Water (feet)[a]	Depth to SPH (feet)	SPH Thickness (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	Contaminant					
							TPH-D[b]	TPH-O[b]	Benzene[c]	Toluene[c]	Ethyl benzene[c]	Total Xylene[c]
GCLs							500	500	5	1,000	700	1,000
MW-7	10/09/2013	3.25	ND	—	35.8	32.55	ND	ND	ND	ND	ND	ND
MW-8[d]	01/12/2009	4.69	ND	—	38.53	33.84	**1,030**	ND	**86.3**	11.7	125	**1,000**
	04/08/2009	4.88	ND	—	38.53	33.65	**2,120**	ND	**18.4**	1.2	54.6	245
	07/08/2009	5.85	ND	—	38.53	32.68	**2,290**	ND	**12**	ND	14	59
	10/28/2009	4.78	ND	—	38.53	33.75	**1,700**	ND	**41**	1.6	61	157
	04/06/2010	5.24	ND	—	38.53	33.29	**2,700**	ND	**34**	1.2	47	139
	10/06/2010	5.26	ND	—	38.53	33.27	**2,100**	ND	3.7	ND	ND	ND
	03/11/2011	4.65	ND	—	38.53	33.88	**1,500**	ND	**18**	ND	43	129
	09/15/2011	5.89	ND	—	38.53	32.64	**1,600**	ND	ND	21	ND	ND
	03/15/2012	4.61	ND	—	38.53	33.92	**2,900Y**	ND	**11**	ND	11	51.3
	10/05/2012	7.39	ND	—	38.53	31.14	**2,100Y**	**570Y**[e]	ND	ND	ND	5
	03/01/2013	4.93	ND	—	38.53	33.60	**1,800Y**	ND	1.1	ND	7	30
	10/09/2013	5.27	ND	—	38.53	33.26	**2,200**	ND	ND	ND	1.1	ND

Note:

All results are in micrograms per liter (µg/L).

SPH = Separate phase hydrocarbon.
GCL = MTCA Method A groundwater cleanup level.

TPH-D = total petroleum hydrocarbons - diesel range.

TPH-O = total petroleum hydrocarbons - oil range.
ND = not detected at concentrations exceeding the laboratory method reporting limit.

Bold, shaded values indicate concentrations exceed MTCA Method A GCL.

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.

Y The chromatographic response resembles a typical fuel pattern.

— = not recorded

a Because water levels were collected before groundwater sampling, levels in table may vary slightly from those on field sampling data sheets.

b Analyzed by Northwest Method NWTPH-Dx.

c BTEX samples were analyzed by EPA Method 8021B in January and April 2009; by EPA Method 8260B in July and October 2009, April and October 2010, March and October 2012, and March 2013; by SW8260 October 2013.

d Monitoring well was installed January 5, 2009.

e Results likely due to biological interference as a results of silica gel cleanup not being performed.

Table 2
Groundwater Depth/SPH Thickness (Extraction Wells)
First Quarter, 2013
AT&T Data Center
20307 North Creek Pkwy, Bothell, WA

Well	2/14/2013		2/27/2013		3/12/2013		3/19/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM	NM	NM	2.94	ND
EW-2	2.81	ND	2.82	ND	2.81	ND	2.83	ND
EW-3	2.94	ND	2.94	ND	2.94	ND	2.96	ND
EW-4	2.77	ND	2.77	ND	2.77	ND	2.78	ND
EW-5	NM	NM	NM	NM	NM	NM	NM	NM
EW-6	NM	NM	NM	NM	NM	NM	NM	NM
EW-7	NM	NM	NM	NM	NM	NM	3.57	ND
EW-8	NM	NM	NM	NM	NM	NM	4.08	ND
EW-9	NM	NM	NM	NM	NM	NM	4.62	ND
EW-10	NM	NM	NM	NM	NM	NM	2.42	ND

Well	3/26/2013	
	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM
EW-2	2.73	ND
EW-3	2.86	ND
EW-4	2.69	ND
EW-5	NM	NM
EW-6	NM	NM
EW-7	NM	NM
EW-8	NM	NM
EW-9	NM	NM
EW-10	NM	NM

Notes:

All depths and thicknesses are shown in feet.

NM = not measured.

ND = SPH was not detected in well.

SPH = separate phase hydrocarbons.

Table 3
Groundwater Depth/SPH Thickness (Extraction Wells)
Second Quarter, 2013
AT&T Data Center
20307 North Creek Pkwy, Bothell, WA

Well	4/3/2013		4/9/2013		4/16/2013		4/23/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM	NM	NM	NM	NM
EW-2	2.83	ND	2.62	ND	2.77	ND	2.66	ND
EW-3	2.96	ND	2.75	ND	2.91	ND	2.80	ND
EW-4	2.79	ND	2.59	ND	2.73	ND	2.62	ND
EW-5	NM	NM	NM	NM	NM	NM	NM	NM
EW-6	NM	NM	NM	NM	NM	NM	NM	NM
EW-7	NM	NM	NM	NM	NM	NM	NM	NM
EW-8	NM	NM	NM	NM	NM	NM	NM	NM
EW-9	NM	NM	NM	NM	NM	NM	NM	NM
EW-10	NM	NM	NM	NM	NM	NM	NM	NM

Well	4/30/2013		5/9/2013		5/23/2013		6/6/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM	NM	NM	NM	NM
EW-2	2.80	ND	2.85	ND	2.81	ND	2.88	ND
EW-3	2.93	ND	2.98	ND	2.94	ND	3.02	ND
EW-4	2.75	ND	2.80	ND	2.76	ND	2.84	ND
EW-5	NM	NM	NM	NM	NM	NM	NM	NM
EW-6	NM	NM	NM	NM	NM	NM	NM	NM
EW-7	NM	NM	NM	NM	NM	NM	NM	NM
EW-8	NM	NM	NM	NM	NM	NM	NM	NM
EW-9	NM	NM	NM	NM	NM	NM	NM	NM
EW-10	NM	NM	NM	NM	NM	NM	NM	NM

Well	6/14/2013		6/27/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM
EW-2	2.93	ND	2.89	ND
EW-3	3.06	ND	3.03	ND
EW-4	2.89	ND	2.84	ND
EW-5	NM	NM	NM	NM
EW-6	NM	NM	NM	NM
EW-7	NM	NM	NM	NM
EW-8	NM	NM	NM	NM
EW-9	NM	NM	NM	NM
EW-10	NM	NM	NM	NM

Notes:

All depths and thicknesses are shown in feet.

NM = not measured.

ND = SPH was not detected in well.

SPH = separate phase hydrocarbons.

Table 4
Groundwater Depth/SPH Thickness (Extraction Wells)
Third Quarter, 2013
AT&T Data Center
20307 North Creek Pkwy, Bothell, WA

Well	07/09/2013		07/18/2013		07/23/2013		07/27/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM	NM	NM	NM	NM
EW-2	2.95	ND	3.00	ND	NM	NM	3.02	ND
EW-3	3.09	ND	3.14	ND	3.17	ND	2.72	ND
EW-4	2.92	ND	2.94	ND	3.00	ND	2.49	ND
EW-5	2.99	ND	3.10	ND	3.09	ND	2.63	ND
EW-6	3.79	ND	3.85	ND	3.87	ND	3.30	ND
EW-7	NM	NM	NM	NM	NM	NM	NM	NM
EW-8	NM	NM	NM	NM	NM	NM	NM	NM
EW-9	NM	NM	NM	NM	NM	NM	NM	NM
EW-10	NM	NM	NM	NM	NM	NM	NM	NM

Well	07/29/2013		08/01/2013		08/12/2013		09/04/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	3.13	ND	NM	NM	NM	NM	NM	NM
EW-2	3.02	ND	4.11	ND	5.06	ND	5.07	ND
EW-3	2.72	ND	3.69	ND	4.65	ND	4.88	ND
EW-4	2.49	ND	3.56	ND	4.45	ND	4.46	ND
EW-5	2.63	ND	3.59	ND	4.23	ND	4.23	ND
EW-6	3.30	ND	4.34	ND	4.81	ND	4.81	ND
EW-7	3.79	ND	NM	NM	NM	NM	NM	NM
EW-8	4.42	ND	NM	NM	NM	NM	NM	NM
EW-9	4.99	ND	NM	NM	NM	NM	NM	NM
EW-10	2.73	ND	NM	NM	NM	NM	NM	NM

Well	09/05/2013		09/23/2013		09/30/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	5.18	ND	NM	NM	4.79	ND
EW-2	5.07	ND	5.06	ND	4.68	ND
EW-3	4.65	ND	4.77	ND	4.31	ND
EW-4	4.56	ND	4.46	0.01	4.11	ND
EW-5	4.24	ND	4.21	ND	3.97	ND
EW-6	4.80	ND	4.89	ND	4.61	ND
EW-7	4.43	ND	NM	NM	4.41	ND
EW-8	5.04	ND	NM	NM	4.88	ND
EW-9	5.30	ND	NM	NM	5.10	ND
EW-10	2.75	ND	NM	NM	2.47	ND

Note: *All depths and thicknesses are shown in feet.*
NM = not measured.
ND = SPH was not detected in well.
ND = SPH was not detected in well.
SPH = separate phase hydrocarbons.

The well casing was cut-off at EW-3 through EW-6 on 7/29/2013 to accomodate the new well seal/groundwater extraction pumps.

Table 5
Groundwater Depth/SPH Thickness (Extraction Wells)
Fourth Quarter, 2013
AT&T Data Center
20307 North Creek Pkwy, Bothell, WA

Well	10/8/2013		11/1/2013		11/6/2013		11/18/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	5.14	ND	NM	NM	NM	NM	NM	NM
EW-2	5.03	ND	5.05	ND	5.05	ND	5.05	ND
EW-3	4.62	ND	4.63	ND	4.62	ND	4.62	ND
EW-4	4.41	0.02	4.44	0.02	4.41	ND	4.41	ND
EW-5	4.41	ND	4.20	ND	4.13	ND	NM	NM
EW-6	4.70	ND	NM	NM	NM	NM	NM	NM
EW-7	4.38	ND	NM	NM	NM	NM	NM	NM
EW-8	4.93	ND	NM	NM	NM	NM	NM	NM
EW-9	5.12	ND	NM	NM	NM	NM	NM	NM
EW-10	2.60	ND	NM	NM	NM	NM	NM	NM

Well	11/25/2013		12/2/2013		12/9/2013		12/19/2013	
	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM	NM	NM	NM	NM	NM	NM
EW-2	3.57	ND	5.05	ND	3.77	ND	3.60	ND
EW-3	3.14	ND	4.62	ND	3.34	ND	3.17	ND
EW-4	3.02	ND	4.41	ND	3.23	ND	3.06	ND
EW-5	3.05	NM	4.07	ND	3.25	ND	NM	NM
EW-6	3.80	NM	NM	NM	4.01	ND	NM	NM
EW-7	NM	NM	NM	NM	NM	NM	NM	NM
EW-8	NM	NM	NM	NM	NM	NM	NM	NM
EW-9	NM	NM	NM	NM	NM	NM	NM	NM
EW-10	NM	NM	NM	NM	NM	NM	NM	NM

Well	12/23/2013	
	Depth to Water/SPH	SPH Thickness
EW-1	NM	NM
EW-2	3.53	ND
EW-3	3.09	ND
EW-4	2.97	ND
EW-5	2.98	ND
EW-6	NM	NM
EW-7	NM	NM
EW-8	NM	NM
EW-9	NM	NM
EW-10	NM	NM

Note:
All depths and thicknesses are shown in feet.
NM = not measured.
ND = SPH was not detected in well.
SPH = separate phase hydrocarbons.
The well casing was cut-off at EW-3 through EW-6 on 7/29/2013 to accomidate the new well seal/groundwater extraction pumps.

Table 6
Groundwater Pumping
(First, Second, Third, and Fourth Quarters, 2013)
AT&T Data Center
20307 North Creek Pkwy, Bothell, WA

	1st Quarter			2nd Quarter		
Month	January	February	March	April	May	June
Gallons Removed	0	0	0	0	0	0
Quarter Total	0			0		
Cumulative Total	0			0		

	3rd Quarter			4th Quarter		
Month	July	August	September	October	November	December
Gallons Removed	19,779	123,911	136,342	112,199	113,062	54,109
Quarter Total	280,032			279,370		
Cumulative Total	280,032			559,402		

Table 7
Volume of SPH Removed From Observation Wells/Piezometers
Fourth Quarter, 2013
AT&T Data Center, 20307 North Creek Pkwy, Bothell, WA

Well	Date	Estimated SPH Pumped (gallons)	Total Amount of Water/ SPH Removed (Gallons)
OW-2	11/06/2013	0.063	0.063
	11/18/2013	0.053	0.079
	11/25/2013	0.073	0.099
	12/19/2013	0.003	0.290
	12/23/2013	0.015	0.020
OW-3	12/19/2013	0.000	0.470
B-19	10/87/2013	0.008	0.625
	11/06/2013	0.031	0.044
	11/18/2013	0.033	0.740
	11/25/2013	0.014	0.490
	12/02/2013	0.007	0.330
	12/19/2013	0.003	0.290
B-20	11/06/2013	0.031	0.500
	12/02/2013	0.073	1.750
	12/09/2013	0.023	0.700
	12/19/2013	0.040	0.510
B-25	11/06/2013	0.016	0.106
	11/18/2013	0.013	0.260
	12/02/2013	0.013	0.080
	12/19/2013	0.013	0.210
B-26	10/08/2013	0.004	0.470
	11/06/2013	0.039	0.078
	11/18/2013	0.013	0.370
	11/25/2013	0.007	0.376
	12/02/2013	0.013	0.380
	12/09/2013	0.008	0.240
	12/19/2013	0.000	0.396
Total		**0.608**	**9.966**

Figures



OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
BOTHELL	TWentz 1/2014	TWW 1/14	TCO 1/14	BT-146714-A1

XREF Files: IMAGE Files: Bothell site.jpg
File: B:\Project\draft\AT&T\2013\Annual Report 2013\Figures\BT-146714-A1.dwg Layout: FIGURE 1 User: tyson.wentz Jan 13, 2014 - 9:36am

SOURCE: Aerial Image Acquired from Google Map 2011.

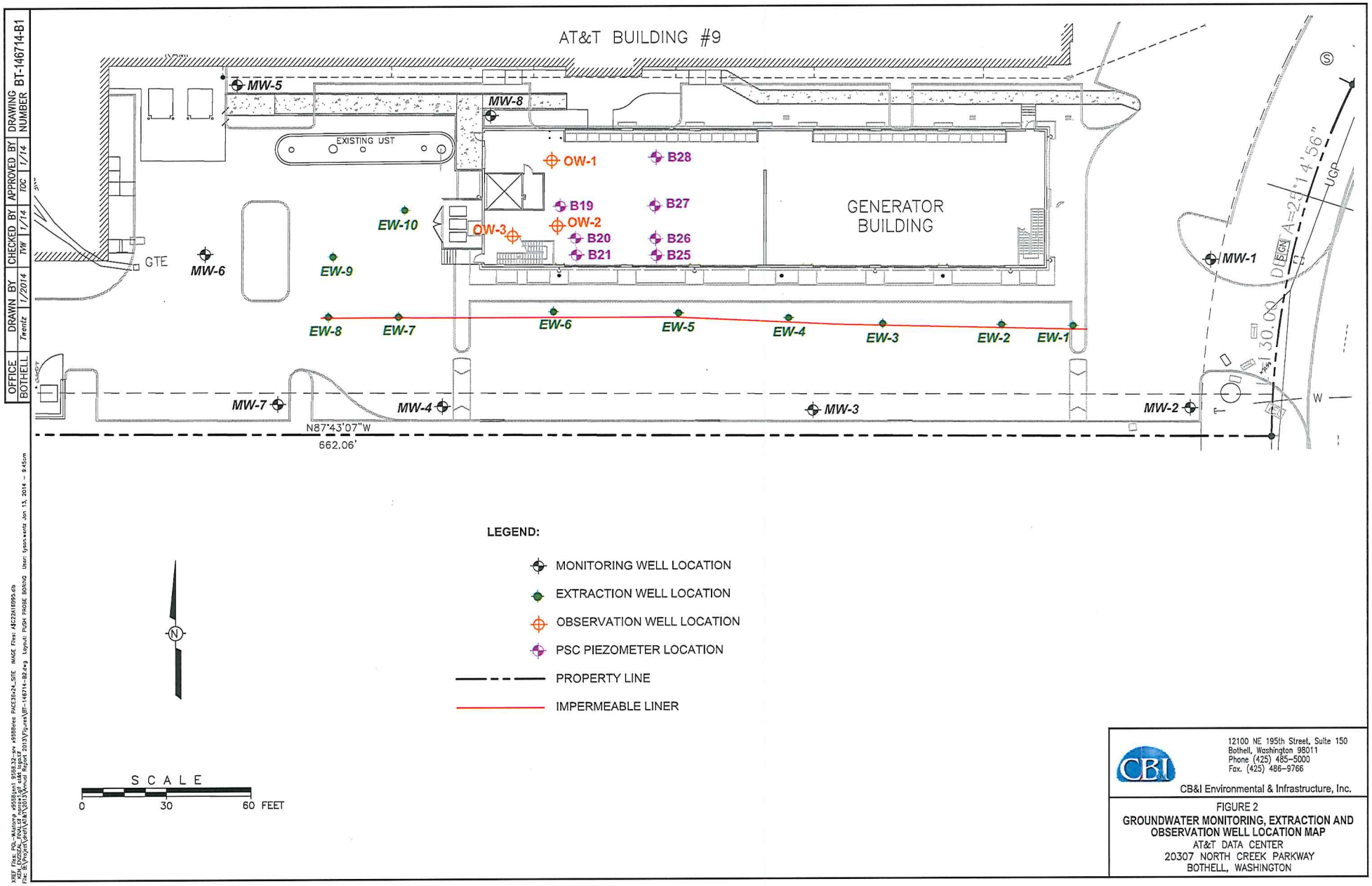
12100 NE 195th Street, Suite 150
Bothell, Washington 98011
Phone (425) 485-5000
Fax. (425) 486-9766

CB&I Environmental & Infrastructure, Inc.

FIGURE 1

SITE LOCATION MAP

AT&T DATA CENTER
20307 NORTH CREEK PARKWAY
BOTHELL, WASHINGTON

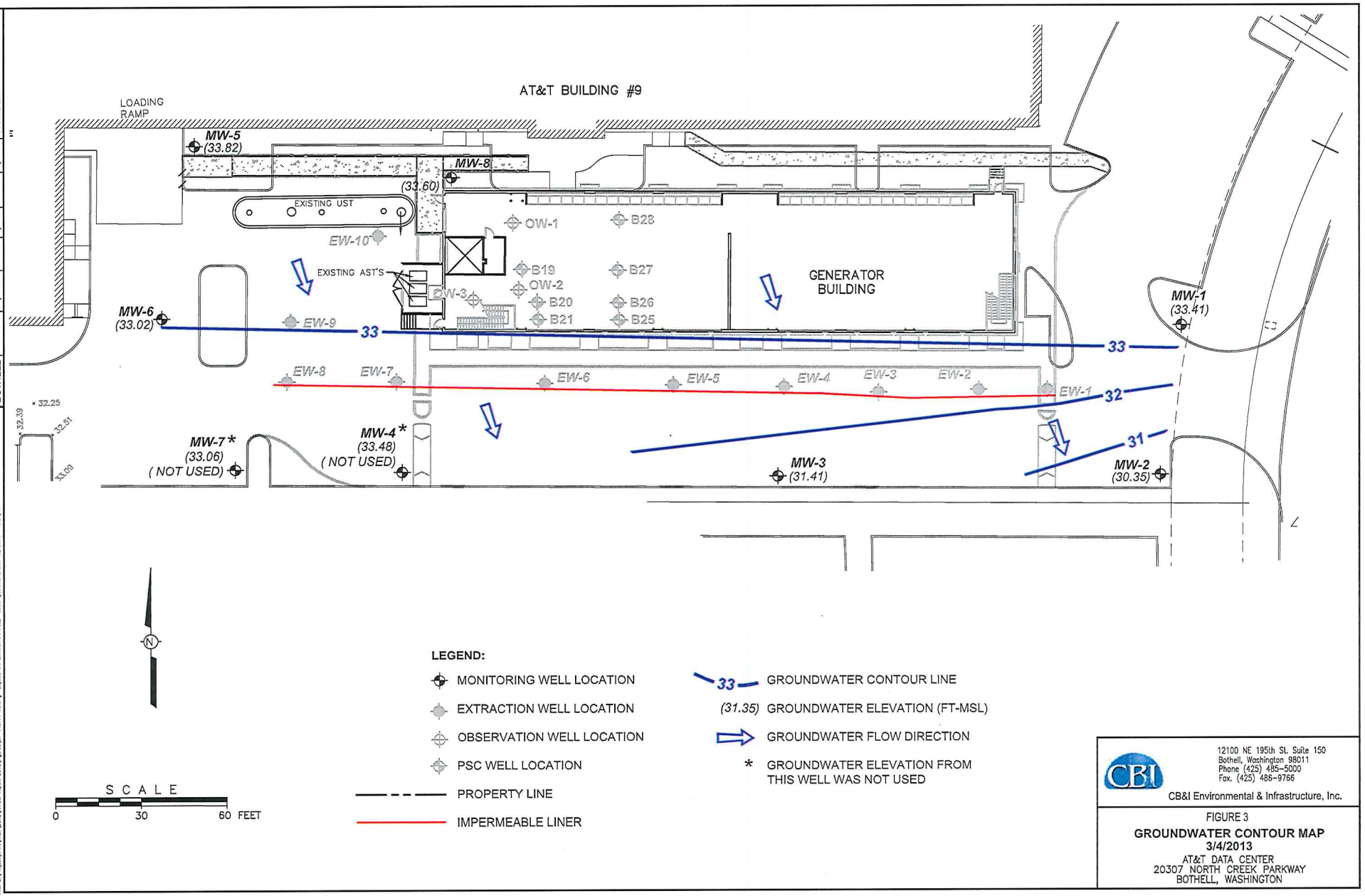


OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
BOTHELL	Trentiz	TW	TOC	BT-146714-B1
	1/2014	1/14	1/14	

CB&I Environmental & Infrastructure, Inc.
12100 NE 195th Street, Suite 150
Bothell, Washington 98011
Phone (425) 485-5000
Fax. (425) 486-9766

FIGURE 2
GROUNDWATER MONITORING, EXTRACTION AND OBSERVATION WELL LOCATION MAP
AT&T DATA CENTER
20307 NORTH CREEK PARKWAY
BOTHELL, WASHINGTON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
BOTHELL	MMentz 01/2014	TW 1/14	TCO 1/14	BT-146714-B2

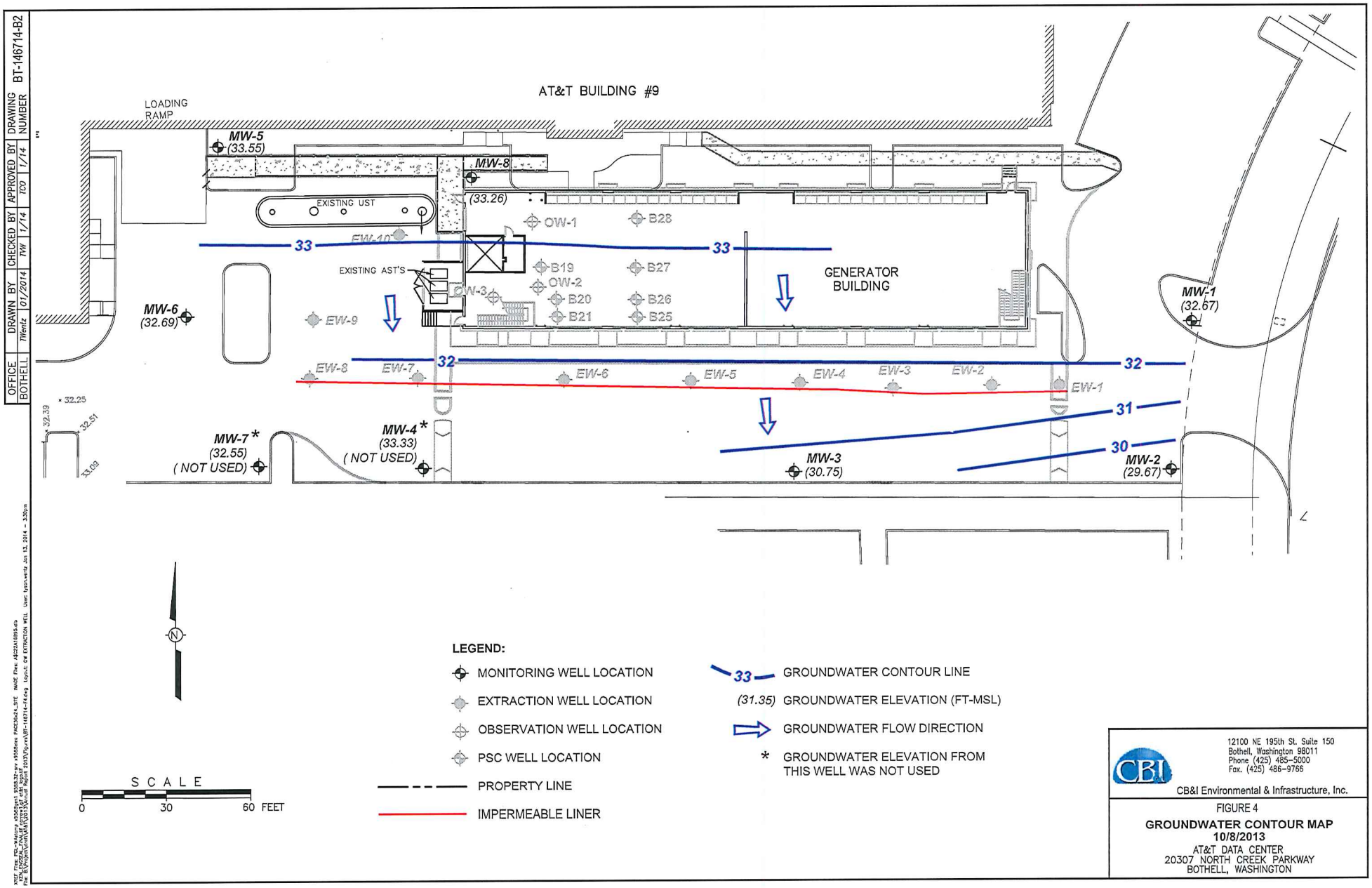


CBI
12100 NE 195th St. Suite 150
Bothell, Washington 98011
Phone (425) 485-5000
Fax. (425) 486-9766
CB&I Environmental & Infrastructure, Inc.

FIGURE 3

GROUNDWATER CONTOUR MAP
3/4/2013

AT&T DATA CENTER
20307 NORTH CREEK PARKWAY
BOTHELL, WASHINGTON



OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
BOTHELL	YHeintz 01/2014	HW 1/14	TCO 1/14	BT-146714-B2

CBI
12100 NE 195th St. Suite 150
Bothell, Washington 98011
Phone (425) 485-5000
Fax. (425) 486-9766
CB&I Environmental & Infrastructure, Inc.

FIGURE 4

GROUNDWATER CONTOUR MAP
10/8/2013
AT&T DATA CENTER
20307 NORTH CREEK PARKWAY
BOTHELL, WASHINGTON

Attachment 1
March 1 and 4, 2013, Analytical Reports



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-37285-1
Client Project/Site: AT&T
Revision: 1

For:
Shaw Environmental & Infrastructure, Inc
19909 120th Ave NE
Suite 101
Bothell, Washington 98011-8242

Attn: Tim O'Connor

Authorized for release by:
3/5/2013 8:51:24 AM

Ella Sandquist
Project Manager I
ella.sandquist@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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QC Sample Results 8
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Sample Summary 12
Chain of Custody 13
Receipt Checklists 14

Case Narrative

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Job ID: 580-37285-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 3/1/2013 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.9° C.

Except:

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). Trip Blank was added to the COC as sample 4; no analyses have been assigned to this Trip Blank sample.

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): MW-8-3/1/13 (580-37285-3). The container labels list MW-8-3/1/13 as the sample ID. The COC lists MW-8-3/1/13. The sample was logged in per COC for sample ID.

Per Client request MW-5-3/1/13 has been changed to MW-8-3/1/13.

The container label on one HCl vial for the following sample did not match the information listed on the Chain-of-Custody (COC): MW-2-3/1/13 (580-37285-2). This container label lists MW-2-1/3/13 as the sample ID. The COC lists MW-2-3/1/13. The sample was logged in per COC for sample ID.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA - Method(s) NWTPH-Dx:
In analytical batch 131109, for the following sample(s) from preparation batch 131086: MW-8-3/1/13 (580-37285-3), the results in the #2 diesel fuel range (C10-C24) range(s) are due to what most closely resembles a complex mixture of overlap from the gasoline range and heavily weathered/degraded diesel fuel. The affected analyte range(s) have been Y qualified and reported.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Client Sample ID: MW-1-3/1/13
Date Collected: 03/01/13 11:45
Date Received: 03/01/13 14:30

Lab Sample ID: 580-37285-1
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/01/13 21:50	1
Toluene	ND		1.0		ug/L			03/01/13 21:50	1
Ethylbenzene	ND		1.0		ug/L			03/01/13 21:50	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/01/13 21:50	1
o-Xylene	ND		1.0		ug/L			03/01/13 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*101*		*80 - 120*		*03/01/13 21:50*	*1*
Toluene-d8 (Surr)	*99*		*85 - 120*		*03/01/13 21:50*	*1*
Ethylbenzene-d10	*100*		*80 - 120*		*03/01/13 21:50*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 120*		*03/01/13 21:50*	*1*
4-Bromofluorobenzene (Surr)	*95*		*75 - 120*		*03/01/13 21:50*	*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		0.14		mg/L		03/01/13 15:55	03/04/13 11:18	1
Motor Oil (>C24-C36)	ND		0.28		mg/L		03/01/13 15:55	03/04/13 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*03/01/13 15:55*	*03/04/13 11:18*	*1*

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Client Sample ID: MW-2-3/1/13
Date Collected: 03/01/13 13:15
Date Received: 03/01/13 14:30

Lab Sample ID: 580-37285-2
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/01/13 22:13	1
Toluene	ND		1.0		ug/L			03/01/13 22:13	1
Ethylbenzene	ND		1.0		ug/L			03/01/13 22:13	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/01/13 22:13	1
o-Xylene	ND		1.0		ug/L			03/01/13 22:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*99*		*80 - 120*		*03/01/13 22:13*	*1*
Toluene-d8 (Surr)	*96*		*85 - 120*		*03/01/13 22:13*	*1*
Ethylbenzene-d10	*99*		*80 - 120*		*03/01/13 22:13*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*03/01/13 22:13*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 120*		*03/01/13 22:13*	*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		0.14		mg/L		03/01/13 15:55	03/04/13 11:35	1
Motor Oil (>C24-C36)	ND		0.27		mg/L		03/01/13 15:55	03/04/13 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/01/13 15:55*	*03/04/13 11:35*	*1*

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Client Sample ID: MW-8-3/1/13
Date Collected: 03/01/13 14:15
Date Received: 03/01/13 14:30

Lab Sample ID: 580-37285-3
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.1		1.0		ug/L			03/01/13 22:36	1
Toluene	ND		1.0		ug/L			03/01/13 22:36	1
Ethylbenzene	7.0		1.0		ug/L			03/01/13 22:36	1
m-Xylene & p-Xylene	30		2.0		ug/L			03/01/13 22:36	1
o-Xylene	ND		1.0		ug/L			03/01/13 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*97*		*80 - 120*		*03/01/13 22:36*	*1*
Toluene-d8 (Surr)	*97*		*85 - 120*		*03/01/13 22:36*	*1*
Ethylbenzene-d10	*96*		*80 - 120*		*03/01/13 22:36*	*1*
Trifluorotoluene (Surr)	*102*		*80 - 120*		*03/01/13 22:36*	*1*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*03/01/13 22:36*	*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)	1.8	Y	0.13		mg/L		03/01/13 15:55	03/04/13 11:53	1
Motor Oil (>C24-C36)	ND		0.27		mg/L		03/01/13 15:55	03/04/13 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*03/01/13 15:55*	*03/04/13 11:53*	*1*

Method: 8260B - BTEX

Lab Sample ID: MB 580-131064/22
Matrix: Water
Analysis Batch: 131064

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/01/13 16:10	1
Toluene	ND		1.0		ug/L			03/01/13 16:10	1
Ethylbenzene	ND		1.0		ug/L			03/01/13 16:10	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/01/13 16:10	1
o-Xylene	ND		1.0		ug/L			03/01/13 16:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*100*		*80 - 120*		*03/01/13 16:10*	*1*
Toluene-d8 (Surr)	*99*		*85 - 120*		*03/01/13 16:10*	*1*
Ethylbenzene-d10	*97*		*80 - 120*		*03/01/13 16:10*	*1*
Trifluorotoluene (Surr)	*90*		*80 - 120*		*03/01/13 16:10*	*1*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*		*03/01/13 16:10*	*1*

Lab Sample ID: LCS 580-131064/23
Matrix: Water
Analysis Batch: 131064

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	22.9		ug/L		114	80 - 120
Toluene	20.1	22.8		ug/L		114	75 - 120
Ethylbenzene	20.0	22.6		ug/L		113	75 - 125
m-Xylene & p-Xylene	40.2	45.2		ug/L		112	75 - 130
o-Xylene	20.1	22.5		ug/L		112	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*100*		*85 - 120*
Ethylbenzene-d10	*103*		*80 - 120*
Trifluorotoluene (Surr)	*116*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*

Lab Sample ID: LCSD 580-131064/24
Matrix: Water
Analysis Batch: 131064

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	22.3		ug/L		111	80 - 120	3	30
Toluene	20.1	22.5		ug/L		112	75 - 120	1	30
Ethylbenzene	20.0	22.6		ug/L		113	75 - 125	0	30
m-Xylene & p-Xylene	40.2	45.7		ug/L		114	75 - 130	1	30
o-Xylene	20.1	22.7		ug/L		113	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluorobenzene (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*99*		*85 - 120*
Ethylbenzene-d10	*99*		*80 - 120*
Trifluorotoluene (Surr)	*114*		*80 - 120*

Method: 8260B - BTEX (Continued)

Lab Sample ID: LCSD 580-131064/24
Matrix: Water
Analysis Batch: 131064

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		75 - 120

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

Lab Sample ID: MB 580-131086/1-B
Matrix: Water
Analysis Batch: 131109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		03/01/13 15:55	03/04/13 10:24	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		03/01/13 15:55	03/04/13 10:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150	03/01/13 15:55	03/04/13 10:24	1

Lab Sample ID: LCS 580-131086/2-B
Matrix: Water
Analysis Batch: 131109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131086

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	5.00	5.07		mg/L		101	70 - 130
Motor Oil (>C24-C36)	5.00	5.32		mg/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	96		50 - 150

Lab Sample ID: LCSD 580-131086/3-B
Matrix: Water
Analysis Batch: 131109

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131086

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	5.00	5.50		mg/L		110	70 - 130	8	30
Motor Oil (>C24-C36)	5.00	5.66		mg/L		113	70 - 130	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	96		50 - 150

Lab Chronicle

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Client Sample ID: MW-1-3/1/13

Lab Sample ID: 580-37285-1

Date Collected: 03/01/13 11:45

Matrix: Water

Date Received: 03/01/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131064	03/01/13 21:50	EB	TAL SEA
Total/NA	Prep	3520C			131086	03/01/13 15:55	RD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131109	03/04/13 11:18	EK	TAL SEA

Client Sample ID: MW-2-3/1/13

Lab Sample ID: 580-37285-2

Date Collected: 03/01/13 13:15

Matrix: Water

Date Received: 03/01/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131064	03/01/13 22:13	EB	TAL SEA
Total/NA	Prep	3520C			131086	03/01/13 15:55	RD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131109	03/04/13 11:35	EK	TAL SEA

Client Sample ID: MW-8-3/1/13

Lab Sample ID: 580-37285-3

Date Collected: 03/01/13 14:15

Matrix: Water

Date Received: 03/01/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131064	03/01/13 22:36	EB	TAL SEA
Total/NA	Prep	3520C			131086	03/01/13 15:55	RD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131109	03/04/13 11:53	EK	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01115CA	01-31-14
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14

Sample Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T

TestAmerica Job ID: 580-37285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-37285-1	MW-1-3/1/13	Water	03/01/13 11:45	03/01/13 14:30
580-37285-2	MW-2-3/1/13	Water	03/01/13 13:15	03/01/13 14:30
580-37285-3	MW-8-3/1/13	Water	03/01/13 14:15	03/01/13 14:30

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
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Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☒ Rush
☐ Short Hold

Chain of Custody Record

3/5/2013

Client: CB&I	Client Contact: Tim O'Connor	Date: 3/1/13	Chain of Custody Number: 17849
Address: 12100 NE 195th ST	Telephone Number (Area Code)/Fax Number: 206-298-3094	Lab Number: 37285	Page 1 of 1
City: Bothell, WA	State: WA	Zip Code: 98011	Sampler: T. Wentz	Lab Contact:
Project Name and Location (State): AT:T Bothell	Billing Contact:		
Contract/Purchase Order/Quote No.			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): NWTPH-DX(Cy/Sgc)	BTEX 8260C
1- MW-1-3/1/13	3/1/13	1145		X						X			X	X
2- MW-2-3/1/13	3/1/13	1315		X						X			X	X
3- MW-5-3/1/13	3/1/13	1413		X						X			X	X
4- Trip Blank NF 03/01/2013														

Special Instructions/ Conditions of Receipt

24-hour turn-around

Cooler/TB Dig/IR cor 6.9°C unc 6.6°C
Cooler Dsc Lg Blue/White @ Lab 1555
Wet/Packs Packing Bubble
W/O COC AZ

Page 13 of 14

Cooler: ☒ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☒ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By Sign/Print: Tyson Wentz	Date: 3/1/13	Time: 1430	1. Received By Sign/Print: Francisco Luna, Jr	Date: 3/1/13	Time: 1430
2. Relinquished By Sign/Print:	Date:	Time:	2. Received By Sign/Print:	Date:	Time:
3. Relinquished By Sign/Print:	Date:	Time:	3. Received By Sign/Print:	Date:	Time:

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

Login Sample Receipt Checklist

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 580-37285-1

Login Number: 37285
List Number: 1
Creator: Riley, Nicole

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-37302-2
Client Project/Site: AT&T Bothell

For:
Shaw Environmental & Infrastructure, Inc
19909 120th Ave NE
Suite 101
Bothell, Washington 98011-8242

Attn: Tim O'Connor

Authorized for release by:
3/5/2013 8:45:23 PM

Ella Sandquist
Project Manager I
ella.sandquist@testamericainc.com

..... LINKS .....

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-2

Job ID: 580-37302-2

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 3/4/2013 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA - Method(s) NWTPH-Dx:
In analytical batch 131212., The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for silica gel cleanup batch 131206 exceeded control limits for the following analytes: C10-C24 and Motor. Both LCS and LCSD meet the acceptance criteria individually.

No other analytical or quality issues were noted.

Organic Prep - Method(s) 3520C:
These samples were ran using less than 1000mLs

No other analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-2

Client Sample ID: MW-5-3/4/13
Date Collected: 03/04/13 11:10
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-2
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/05/13 12:20	1
Toluene	ND		1.0		ug/L			03/05/13 12:20	1
Ethylbenzene	ND		1.0		ug/L			03/05/13 12:20	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/05/13 12:20	1
o-Xylene	ND		1.0		ug/L			03/05/13 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*		*03/05/13 12:20*	*1*
Toluene-d8 (Surr)	*104*		*85 - 120*		*03/05/13 12:20*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/05/13 12:20*	*1*
Trifluorotoluene (Surr)	*108*		*80 - 120*		*03/05/13 12:20*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*03/05/13 12:20*	*1*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	*	0.13		mg/L		03/04/13 16:53	03/05/13 16:09	1
Motor Oil (>C24-C36)	ND	*	0.25		mg/L		03/04/13 16:53	03/05/13 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*03/04/13 16:53*	*03/05/13 16:09*	*1*

Method: 8260B - BTEX

Lab Sample ID: MB 580-131180/4
Matrix: Water
Analysis Batch: 131180

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/05/13 10:27	1
Toluene	ND		1.0		ug/L			03/05/13 10:27	1
Ethylbenzene	ND		1.0		ug/L			03/05/13 10:27	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/05/13 10:27	1
o-Xylene	ND		1.0		ug/L			03/05/13 10:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*		*03/05/13 10:27*	*1*
Toluene-d8 (Surr)	*104*		*85 - 120*		*03/05/13 10:27*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/05/13 10:27*	*1*
Trifluorotoluene (Surr)	*110*		*80 - 120*		*03/05/13 10:27*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*03/05/13 10:27*	*1*

Lab Sample ID: LCS 580-131180/5
Matrix: Water
Analysis Batch: 131180

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.9		ug/L		108	80 - 120
Toluene	25.0	26.5		ug/L		106	75 - 120
Ethylbenzene	25.0	24.8		ug/L		99	75 - 125
m-Xylene & p-Xylene	50.0	51.2		ug/L		102	75 - 130
o-Xylene	25.0	25.9		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*103*		*85 - 120*
Ethylbenzene-d10	*99*		*80 - 120*
Trifluorotoluene (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*

Lab Sample ID: LCSD 580-131180/6
Matrix: Water
Analysis Batch: 131180

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	25.0	27.0		ug/L		108	80 - 120	0	30
Toluene	25.0	26.8		ug/L		107	75 - 120	1	30
Ethylbenzene	25.0	25.2		ug/L		101	75 - 125	2	30
m-Xylene & p-Xylene	50.0	52.4		ug/L		105	75 - 130	2	30
o-Xylene	25.0	26.5		ug/L		106	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluorobenzene (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*103*		*85 - 120*
Ethylbenzene-d10	*101*		*80 - 120*
Trifluorotoluene (Surr)	*94*		*80 - 120*

Method: 8260B - BTEX (Continued)

Lab Sample ID: LCSD 580-131180/6
Matrix: Water
Analysis Batch: 131180

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 580-131161/1-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131161

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		03/04/13 16:53	03/05/13 14:58	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		03/04/13 16:53	03/05/13 14:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*92*		*50 - 150*	*03/04/13 16:53*	*03/05/13 14:58*	*1*

Lab Sample ID: LCS 580-131161/2-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131161

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	5.00	3.50		mg/L		70	70 - 130
Motor Oil (>C24-C36)	5.00	3.91		mg/L		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	*86*		*50 - 150*

Lab Sample ID: LCSD 580-131161/3-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131161

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	5.00	5.30	*	mg/L		106	70 - 130	41	30
Motor Oil (>C24-C36)	5.00	5.98	*	mg/L		120	70 - 130	42	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	*107*		*50 - 150*

Lab Chronicle

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-2

Client Sample ID: MW-5-3/4/13
Date Collected: 03/04/13 11:10
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131180	03/05/13 12:20	EB	TAL SEA
Total/NA	Prep	3520C			131161	03/04/13 16:53	AW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131212	03/05/13 16:09	JL	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-2

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01115CA	01-31-14
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14

Sample Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-37302-2	MW-5-3/4/13	Water	03/04/13 11:10	03/04/13 15:40

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☒ Rush MW-5
☐ Short Hold

Chain of Custody Record

3/5/2013

Client: CB&I	Client Contact: JIM O'CONNOR	Date: 3/4/13	Chain of Custody Number: 17691
Address: 12100 NE 195TH ST.	Telephone Number (Area Code)/Fax Number: 425 402 3252	Lab Number: 37302	Page 1 of 1
City: BOTHELL / State: WA / Zip Code: 98011	Sampler: T. O'CONNOR	Lab Contact: ELLA	
Project Name and Location (State): ATT: BOTHELL	Billing Contact: MS7048@CATT.COM		
Contract/Purchase Order/Quote No.: TITAN			

Analysis (Attach list if more space is needed): NWTPH-Dx w/ SGC; BTEX 8260B

Special Instructions/ Conditions of Receipt

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	NWTPH-Dx w/ SGC	BTEX 8260B	
MW-3 - 3/4/13	3/4/13	1030		X						X			X	X	
MW-5 - 3/4/13	3/4/13	1110		X						X			X	X	24 HR TAT
MW-6 - 3/4/13	3/4/13			X						X			X	X	
TRIP BLANK															HOLD

Cooler/CB Dig/IR cor 2.4°C unc 2.1°C
Cooler Dsc Lg Green/Blue @ Lab 1540
Wet/Packs Packing Bubble
AZ w/o CS

Page 11 of 12

Cooler: ☐ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☒ 24 Hours ☐ 48 Hours ☐ 5 Days ☒ 10 Days ☐ 15 Days ☒ Other STD

QC Requirements (Specify)

	Date	Time
1. Relinquished By Sign/Print:	3/4/13	
2. Relinquished By Sign/Print: Michelle Judd	3/4/13	12:52
3. Relinquished By Sign/Print:		
1. Received By Sign/Print: Michelle Judd	3/4/13	12:50p
2. Received By Sign/Print:		
3. Received By Sign/Print:		

Comments

Login Sample Receipt Checklist

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 580-37302-2

Login Number: 37302
List Number: 1
Creator: Luna, Francisco

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	No time on COC for 3rd sample
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Time on container not on COC
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-37302-1
Client Project/Site: AT&T Bothell

For:
Shaw Environmental & Infrastructure, Inc
19909 120th Ave NE
Suite 101
Bothell, Washington 98011-8242

Attn: Tim O'Connor

Authorized for release by:
3/7/2013 4:22:52 PM

Ella Sandquist
Project Manager I
ella.sandquist@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Job ID: 580-37302-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 3/4/2013 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

Except:

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): MW-6-3/4/13 (580-37302-3). The sample MW-6 did not have a time on the COC. Logged-in per sample container time.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA - Method(s) NWTPH-Dx:
In analytical batch 131212, the %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for silica gel cleanup batch 131206 exceeded control limits for the following analytes: C10-C24 and Motor. Both LCS and LCSD meet the acceptance criteria individually.

No other analytical or quality issues were noted.

Organic Prep - Method(s) 3520C:
These samples were ran using less than 1000mLs

No other analytical or quality issues were noted.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Client Sample ID: MW-3-3/4/13
Date Collected: 03/04/13 10:30
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-1
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/05/13 12:42	1
Toluene	ND		1.0		ug/L			03/05/13 12:42	1
Ethylbenzene	ND		1.0		ug/L			03/05/13 12:42	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/05/13 12:42	1
o-Xylene	ND		1.0		ug/L			03/05/13 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*101*		*80 - 120*		*03/05/13 12:42*	*1*
Toluene-d8 (Surr)	*103*		*85 - 120*		*03/05/13 12:42*	*1*
Ethylbenzene-d10	*100*		*80 - 120*		*03/05/13 12:42*	*1*
Trifluorotoluene (Surr)	*110*		*80 - 120*		*03/05/13 12:42*	*1*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*03/05/13 12:42*	*1*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	*	0.13		mg/L		03/04/13 16:53	03/05/13 15:51	1
Motor Oil (>C24-C36)	ND	*	0.26		mg/L		03/04/13 16:53	03/05/13 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*03/04/13 16:53*	*03/05/13 15:51*	*1*

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Client Sample ID: MW-6-3/4/13
Date Collected: 03/04/13 12:30
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-3
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/05/13 13:04	1
Toluene	ND		1.0		ug/L			03/05/13 13:04	1
Ethylbenzene	ND		1.0		ug/L			03/05/13 13:04	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/05/13 13:04	1
o-Xylene	ND		1.0		ug/L			03/05/13 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*		*03/05/13 13:04*	*1*
Toluene-d8 (Surr)	*104*		*85 - 120*		*03/05/13 13:04*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/05/13 13:04*	*1*
Trifluorotoluene (Surr)	*109*		*80 - 120*		*03/05/13 13:04*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*03/05/13 13:04*	*1*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND	*	0.12		mg/L		03/04/13 16:53	03/05/13 16:27	1
Motor Oil (>C24-C36)	ND	*	0.25		mg/L		03/04/13 16:53	03/05/13 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*03/04/13 16:53*	*03/05/13 16:27*	*1*

Method: 8260B - BTEX

Lab Sample ID: MB 580-131180/4
Matrix: Water
Analysis Batch: 131180

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/05/13 10:27	1
Toluene	ND		1.0		ug/L			03/05/13 10:27	1
Ethylbenzene	ND		1.0		ug/L			03/05/13 10:27	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/05/13 10:27	1
o-Xylene	ND		1.0		ug/L			03/05/13 10:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*		*03/05/13 10:27*	*1*
Toluene-d8 (Surr)	*104*		*85 - 120*		*03/05/13 10:27*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/05/13 10:27*	*1*
Trifluorotoluene (Surr)	*110*		*80 - 120*		*03/05/13 10:27*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*03/05/13 10:27*	*1*

Lab Sample ID: LCS 580-131180/5
Matrix: Water
Analysis Batch: 131180

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.9		ug/L		108	80 - 120
Toluene	25.0	26.5		ug/L		106	75 - 120
Ethylbenzene	25.0	24.8		ug/L		99	75 - 125
m-Xylene & p-Xylene	50.0	51.2		ug/L		102	75 - 130
o-Xylene	25.0	25.9		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*103*		*85 - 120*
Ethylbenzene-d10	*99*		*80 - 120*
Trifluorotoluene (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*

Lab Sample ID: LCSD 580-131180/6
Matrix: Water
Analysis Batch: 131180

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	25.0	27.0		ug/L		108	80 - 120	0	30
Toluene	25.0	26.8		ug/L		107	75 - 120	1	30
Ethylbenzene	25.0	25.2		ug/L		101	75 - 125	2	30
m-Xylene & p-Xylene	50.0	52.4		ug/L		105	75 - 130	2	30
o-Xylene	25.0	26.5		ug/L		106	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluorobenzene (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*103*		*85 - 120*
Ethylbenzene-d10	*101*		*80 - 120*
Trifluorotoluene (Surr)	*94*		*80 - 120*

Method: 8260B - BTEX (Continued)

Lab Sample ID: LCSD 580-131180/6
Matrix: Water
Analysis Batch: 131180

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 580-131161/1-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131161

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		03/04/13 16:53	03/05/13 14:58	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		03/04/13 16:53	03/05/13 14:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/04/13 16:53*	*03/05/13 14:58*	*1*

Lab Sample ID: LCS 580-131161/2-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131161

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	5.00	3.50		mg/L		70	70 - 130
Motor Oil (>C24-C36)	5.00	3.91		mg/L		78	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*86*		*50 - 150*

Lab Sample ID: LCSD 580-131161/3-B
Matrix: Water
Analysis Batch: 131212

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131161

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	5.00	5.30	*	mg/L		106	70 - 130	41	30
Motor Oil (>C24-C36)	5.00	5.98	*	mg/L		120	70 - 130	42	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*107*		*50 - 150*

Lab Chronicle

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Client Sample ID: MW-3-3/4/13

Date Collected: 03/04/13 10:30
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131180	03/05/13 12:42	EB	TAL SEA
Total/NA	Prep	3520C			131161	03/04/13 16:53	AW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131212	03/05/13 15:51	JL	TAL SEA

Client Sample ID: MW-6-3/4/13

Date Collected: 03/04/13 12:30
Date Received: 03/04/13 15:40

Lab Sample ID: 580-37302-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131180	03/05/13 13:04	EB	TAL SEA
Total/NA	Prep	3520C			131161	03/04/13 16:53	AW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131212	03/05/13 16:27	JL	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01115CA	01-31-14
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14

Sample Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37302-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-37302-1	MW-3-3/4/13	Water	03/04/13 10:30	03/04/13 15:40
580-37302-3	MW-6-3/4/13	Water	03/04/13 12:30	03/04/13 15:40

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☒ Rush MW-5
☐ Short Hold

Chain of Custody Record

3/7/2013

Client: CB&I	Client Contact: TIM O'CONNOR	Date: 3/4/13	Chain of Custody Number: 17691
Address: 12100 NE 195th ST.	Telephone Number (Area Code)/Fax Number: 425 402 3252	Lab Number: 37302	Page 1 of 1
City: BOTHELL	State: WA	Zip Code: 98011	Sampler: T. O'CONNOR	Lab Contact: ELLA
Project Name and Location (State): ATT: BOTHELL	Billing Contact: MS7948@ATT.COM		
Contract/Purchase Order/Quote No.: TITAN			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): NWTPH Dx w/ SGC	NWTPH Gx BTEX	Special Instructions/ Conditions of Receipt
MW-3-3/4/13	3/4/13	1030		X						X			X	X	24 HR TAT
MW-5-3/4/13	3/4/13	11:10		X						X			X	X	
MW-6-3/4/13	3/4/13			X						X			X	X	HOLD
TRIP BLANK															

Cooler/TB Dig/IR cor 2.4°C unc 2.1°C
Cooler Dsc Lg Green/Blue @ Lab 1540
Wet/Packs Packing Bubble
AZ w/o CS

Cooler: ☐ Yes ☐ No Cooler Temp: ____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☒ 24 Hours MW ☐ 48 Hours ☐ 5 Days ☒ 10 Days ☐ 15 Days ☒ Other STD

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By Sign/Print:	3/4/13		1. Received By Sign/Print: Michelle Judd	3/4/13	12:50p
2. Relinquished By Sign/Print: Michelle Judd	3/4/13	12:52	2. Received By Sign/Print:		
3. Relinquished By Sign/Print:			3. Received By Sign/Print:		

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

Login Sample Receipt Checklist

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 580-37302-1

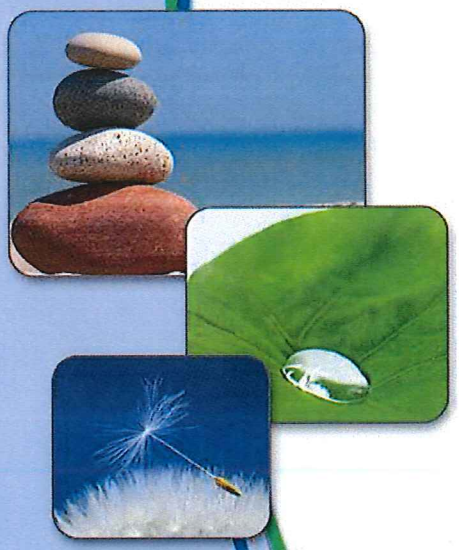
Login Number: 37302
List Number: 1
Creator: Luna, Francisco

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	No time on COC for 3rd sample
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Time on container not on COC
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-37327-1
Client Project/Site: AT&T Bothell

For:
Shaw Environmental & Infrastructure, Inc
19909 120th Ave NE
Suite 101
Bothell, Washington 98011-8242

Attn: Tim O'Connor

Authorized for release by:
3/20/2013 12:10:26 PM

Ella Sandquist
Project Manager I
ella.sandquist@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Job ID: 580-37327-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 3/5/2013 12:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.5° C.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
Method(s) 3520C: These samples were ran using less than 1000mLs.

No other analytical or quality issues were noted.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Client Sample ID: MW-4-3/4/13
Date Collected: 03/04/13 13:30
Date Received: 03/05/13 12:30

Lab Sample ID: 580-37327-1
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/07/13 19:41	1
Toluene	ND		1.0		ug/L			03/07/13 19:41	1
Ethylbenzene	ND		1.0		ug/L			03/07/13 19:41	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/07/13 19:41	1
o-Xylene	ND		1.0		ug/L			03/07/13 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*102*		*80 - 120*		*03/07/13 19:41*	*1*
Toluene-d8 (Surr)	*102*		*85 - 120*		*03/07/13 19:41*	*1*
Ethylbenzene-d10	*99*		*80 - 120*		*03/07/13 19:41*	*1*
Trifluorotoluene (Surr)	*97*		*80 - 120*		*03/07/13 19:41*	*1*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*		*03/07/13 19:41*	*1*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.14		mg/L		03/06/13 14:37	03/08/13 13:01	1
Motor Oil (>C24-C36)	ND		0.29		mg/L		03/06/13 14:37	03/08/13 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/06/13 14:37*	*03/08/13 13:01*	*1*

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Client Sample ID: MW-7-3/4/13
Date Collected: 03/04/13 14:15
Date Received: 03/05/13 12:30

Lab Sample ID: 580-37327-2
Matrix: Water

Method: 8260B - BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/07/13 20:03	1
Toluene	ND		1.0		ug/L			03/07/13 20:03	1
Ethylbenzene	ND		1.0		ug/L			03/07/13 20:03	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/07/13 20:03	1
o-Xylene	ND		1.0		ug/L			03/07/13 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*103*		*80 - 120*		*03/07/13 20:03*	*1*
Toluene-d8 (Surr)	*103*		*85 - 120*		*03/07/13 20:03*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/07/13 20:03*	*1*
Trifluorotoluene (Surr)	*97*		*80 - 120*		*03/07/13 20:03*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*03/07/13 20:03*	*1*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.14		mg/L		03/06/13 14:37	03/08/13 13:29	1
Motor Oil (>C24-C36)	ND		0.27		mg/L		03/06/13 14:37	03/08/13 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*03/06/13 14:37*	*03/08/13 13:29*	*1*

Method: 8260B - BTEX

Lab Sample ID: MB 580-131332/6
Matrix: Water
Analysis Batch: 131332

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/07/13 12:04	1
Toluene	ND		1.0		ug/L			03/07/13 12:04	1
Ethylbenzene	ND		1.0		ug/L			03/07/13 12:04	1
m-Xylene & p-Xylene	ND		2.0		ug/L			03/07/13 12:04	1
o-Xylene	ND		1.0		ug/L			03/07/13 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluorobenzene (Surr)	*100*		*80 - 120*		*03/07/13 12:04*	*1*
Toluene-d8 (Surr)	*100*		*85 - 120*		*03/07/13 12:04*	*1*
Ethylbenzene-d10	*101*		*80 - 120*		*03/07/13 12:04*	*1*
Trifluorotoluene (Surr)	*103*		*80 - 120*		*03/07/13 12:04*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*03/07/13 12:04*	*1*

Lab Sample ID: LCS 580-131332/7
Matrix: Water
Analysis Batch: 131332

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	27.3		ug/L		109	80 - 120
Toluene	25.0	26.4		ug/L		105	75 - 120
Ethylbenzene	25.0	26.0		ug/L		104	75 - 125
m-Xylene & p-Xylene	50.0	52.5		ug/L		105	75 - 130
o-Xylene	25.0	26.4		ug/L		106	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*85 - 120*
Ethylbenzene-d10	*101*		*80 - 120*
Trifluorotoluene (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*

Lab Sample ID: LCSD 580-131332/8
Matrix: Water
Analysis Batch: 131332

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	25.0	26.7		ug/L		107	80 - 120	2	30
Toluene	25.0	26.0		ug/L		104	75 - 120	1	30
Ethylbenzene	25.0	25.9		ug/L		104	75 - 125	0	30
m-Xylene & p-Xylene	50.0	52.6		ug/L		105	75 - 130	0	30
o-Xylene	25.0	26.9		ug/L		108	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Fluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*102*		*85 - 120*
Ethylbenzene-d10	*102*		*80 - 120*
Trifluorotoluene (Surr)	*88*		*80 - 120*

Method: 8260B - BTEX (Continued)

Lab Sample ID: LCSD 580-131332/8
Matrix: Water
Analysis Batch: 131332

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*

Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Lab Sample ID: MB 580-131286/1-B
Matrix: Water
Analysis Batch: 131391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131286

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.13		mg/L		03/06/13 14:37	03/08/13 11:38	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		03/06/13 14:37	03/08/13 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*03/06/13 14:37*	*03/08/13 11:38*	*1*

Lab Sample ID: LCS 580-131286/2-B
Matrix: Water
Analysis Batch: 131391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131286

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	5.00	4.54		mg/L		91	70 - 130
Motor Oil (>C24-C36)	5.00	4.92		mg/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*86*		*50 - 150*

Lab Sample ID: LCSD 580-131286/3-B
Matrix: Water
Analysis Batch: 131391

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131286

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	5.00	4.59		mg/L		92	70 - 130	1	30
Motor Oil (>C24-C36)	5.00	4.95		mg/L		99	70 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 150*

Lab Chronicle

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Client Sample ID: MW-4-3/4/13

Lab Sample ID: 580-37327-1

Date Collected: 03/04/13 13:30

Matrix: Water

Date Received: 03/05/13 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131332	03/07/13 19:41	GH	TAL SEA
Total/NA	Prep	3520C			131286	03/06/13 14:37	AW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131391	03/08/13 13:01	JL	TAL SEA

Client Sample ID: MW-7-3/4/13

Lab Sample ID: 580-37327-2

Date Collected: 03/04/13 14:15

Matrix: Water

Date Received: 03/05/13 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	131332	03/07/13 20:03	GH	TAL SEA
Total/NA	Prep	3520C			131286	03/06/13 14:37	AW	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	131391	03/08/13 13:29	JL	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01115CA	01-31-14
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Shaw Environmental & Infrastructure, Inc
Project/Site: AT&T Bothell

TestAmerica Job ID: 580-37327-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-37327-1	MW-4-3/4/13	Water	03/04/13 13:30	03/05/13 12:30
580-37327-2	MW-7-3/4/13	Water	03/04/13 14:15	03/05/13 12:30

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

3/20/2013

CHAIN OF CUSTODY REPORT

Work Order #: 37327

CLIENT: CB&I

REPORT TO: CB&I
ADDRESS: 12100 NE 195th ST. Suite 150 HLW
PHONE: FAX:

INVOICE TO: TITAN
MARK SMITH MS7646CA@aol.com

P.O. NUMBER: AIT.

PROJECT NAME: AIT Bothell
PROJECT NUMBER: 146714.01
SAMPLED BY: T O'Connor

PRESERVATIVE

REQUESTED ANALYSES

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: X 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NWTPH DX 3/5 6260 B TOC	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-4-3/4/13	3/4/13 1330	X X	W	5		
2	MW-7-3/4/13	3/4/13 1415	X X	W	5		
3		TRIP BLANK				HOLD	
4							
5							
6							
7							
8							
9							
10							

RELEASED BY: [signature] DATE: 3/5/14
PRINT NAME: FIRM: CB&I TIME: 1230

RECEIVED BY: [signature] DATE: 3/5/14
PRINT NAME: Cathy Cramble FIRM: TA-Sea TIME: 12:30

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: TEMP: PAGE OF

TAL-1000(0408)

AI TB: 3.5/3.4
Lg blue wh. bubble in - client disp of

Login Sample Receipt Checklist

Client: Shaw Environmental & Infrastructure, Inc

Job Number: 580-37327-1

Login Number: 37327
List Number: 1
Creator: Riley, Nicole

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment 2
March 1 and 4, 2013, Field Sampling Data Sheets

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT and T Data Center WELL ID: MW-1
SITE ADDRESS: Bothell, WA BLIND ID: —
DUP ID: — NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		(CLOUDY)		RAIN		?		TEMPERATURE: (°F) 50. °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/1/13	11 :10	.	.	2.74	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | (2" = 0.163) | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other = TUBING

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	3/1/13	11 :45	~~B~~ G	3 (40 ml)	(HCl)	(YES)	NO		
Amber Glass	3/1/13	11 :45	B	2 (250, 500, (1L))	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:		250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:		250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:		250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:		125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:		250, 500, 1L	HNO_3	YES	YES		
	/ /	:		250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) BTEX OR[ ] WA[ ]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx OR[ ] WA[ ]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 11 :12 Pump/Bailer Inlet Depth: 7.74

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1112	0	B	0.00	6.99	-59.7	439	9.57.	2.74	18.87	Clear
1117	1	B	0.50	6.24	-79.2	445	8.31	3.63	2.13	"
1122	2	B	1.0	6.25	-91.6	464	8.40	4.37	1.53	"
1127	3	B	1.5	6.27	-97.3	469	8.77	4.73	1.38	"
1132	4	B	2.0	6.27	-99.0	464	8.94	5.10	1.08	"
1137	5	B	2.5	6.28	-99.7	448	9.03	5.37	0.81	"
1142	6	B	3.0	6.28	-95.9	440	9.24	5.67	0.67	" 7.74 inlet

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT and T Data Center WELL ID: MW-2

SITE ADDRESS: Bothell, WA BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		(CLOUDY)		RAIN			?			

TEMPERATURE: (F) 50. °C [Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/1/13	12:35	.	.	5.33	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | (2" = 0.163) | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	3/1/13	13:15	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	3/1/13	13:15	B	2	250, 500, (1L)	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) BTEX OR [ ] WA [K]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx OR [ ] WA [K]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 12:35 Pump/Bailer Inlet Depth: 8.33

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	(F) Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1240	0	B	0.00	6.08	39.4	196	9.10	5.33	2.80	clearish
1245	1	B	0.3	5.87	30.9	190	8.75	6.40	1.39	"
1250	2	B	0.8	5.91	14.1	191	8.89	6.62	1.09	"
1255	3	B	1.1	5.94	3.1	190	8.95	6.80	0.72	"
1300	4	B	1.5	5.95	-7.2	185	8.98	6.98	0.58	"
1305	5	B	1.8	5.96	-15.4	182	8.99	7.20	0.55	"
1310	6	B	2.5	5.97	-21.6	181	8.98	7.38	0.51	"

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz
(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT&T Bothell WELL ID: MW-3
SITE ADDRESS: BLIND ID: —
DUP ID: — NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE:	°F . °C	

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3 14 13	10:00	.	.	.	3.34	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other = TUBING

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	3 14 13	10:30	G	3	40 ml	HCl	YES	NO		
Amber Glass	3 14 13	10:30	B	2	250, 500, 1L	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) BTEX OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) DX OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp (°C)	DTW	Diss O_2 (mg/l)	Water Quality
0	B	0.00	6.19	-30.1	296	8.00	3.34	5.19	Clear
10:05 1	B	1.0	6.18	-56.7	289	7.98	3.54	2.08	Clear
10:15 2	B	2.25	6.21	-65	286	7.88	3.55	1.22	"
10:25 3	B	3.75	6.23	-72.4	282	7.75	3.55	0.85	Clear
4		.	.			.	.	.	
5		.	.			.	.	.	
6		.	.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tim Connor (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AH - Bothell WELL ID: MW-4

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	(SUNNY)		CLOUDY		RAIN		?		TEMPERATURE:	°F . °C	

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/4/13	13:00	.	.	1.78	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	3/4/13	13:30	G	3	40 ml	HCl	YES	NO		
Amber Glass	3/4/13	13:30	B	2	250, 500, 1L	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [ ]
AMBER - Glass	(8080) (8150) (TOX) OR [ ] WA [ ]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
0	B	0.00	6.67	28	258	9.98	1.78	1.18	Clear
1330 1	B	1.25	6.37	13.7	255	11.82	2.75	1.61	"
1320 2	B	2.0	6.36	7.9	255	12.13	2.52	0.76	"
1330 3	B	2.5	6.35	5.9	255	12.28	2.35	0.65	"
1337 4	B	3.0	6.35	3.8	255	12.29	2.32	0.62	"
5		.	.			.	.	.	
6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tim O'Connor (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: ATT Bothell WELL ID: MW-5
SITE ADDRESS: BLIND ID:
DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	(SUNNY)		CLOUDY		RAIN		?		TEMPERATURE:	°F ,	°C

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/14/13	10:40	.	.	4.41	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other = TUBING

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	3/14/13	11:10	B	3	40 ml	(HCl)	YES	NO		
Amber Glass	3/14/13	11:10	B	2	250, 500, (1L)	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (Include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) BTEX OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-DX OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1000	B	0.00	6.12	160.1	559	11.22	4.91	9.14	Clear/Bugs
1035 1	B	1.25	6.08	-18.1	993	11.48	5.29	0.64	Clear
1100 2	B	2.0	6.14	-46	1070	11.54	5.62	2.93	Clear
1103	B	3.0	6.18	-60.5	1072	11.54	5.96	0.52	"
1115 4	B	3.25	6.16	-65	1053	11.63	5.99	0.45	"
1125 5	B	4.0	6.17	-65	1032	11.64	6.19	0.38	"
1130 6	B	4.5	6.17	-63	995	11.64	6.25	0.42	"
1135									

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Jim O'Connor (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AM WELL ID: MW-6

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE:	°F . °C	

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/9/13	11:50	.	.	3.66	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other = TUBING

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	3/9/13	12:30	G/B	3	40 mL	HCl	YES	NO		
Amber Glass	3/9/13	12:30	G/B	2	250, 500, 1L	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [ ]
AMBER - Glass	(8080) (8150) (TOX) OR [ ] WA [ ]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1150 0	B	0.00	6.13	-11	404	10.50	3.88	1.29	Clear
1155 1	B	1.5	6.11	-20	386	10.31	4.13	1.0	"
1200 2	B	2.0	6.10	-30	359	10.00	5.03	0.61	"
1205 3	B	2.5	6.10	-39.9	371	9.99	5.36	0.46	"
1210 4	B	3.0	6.08	-41.3	395	10.26	5.90	0.42	"
1215 5	B	3.5	6.07	-44	409	10.34	6.25	0.41	"
6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: TIM O'CONNOR (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: ATT Bothell WELL ID: MW-7
SITE ADDRESS: BLIND ID: —
DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE:	°F	°C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW [Product Thickness]	DTB-DTW [Water Column]		Volume (gal) [Water Column x Gal/ft]
3 Apr 13	11:15	.	.	2.74	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other = DDBL

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√ if used
VOA Glass	3 4 13	14:15	G	3	(40 ml)	(HCl)	YES	NO		
Amber Glass	3 4 13	14:15	B	2	250, 500, (1L)	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3

Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) BTEX NWTPH-DX OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA

Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
0	B	0.00	6.77	7.6	106 242	9.74	2.74	8.51	clear, slight turbid
1350 1	B	1.5	6.90	46	240	9.91	4.06	0.69	" " "
1400 2	B	2.25	6.37	24.1	234	9.67	4.98	0.67	" "
1410 3	B	3.25	6.40	1.4	242	9.74	5.71	1.40	" "
1415 4	B	3.95	6.45	13.3	262	9.91	6.21	1.03	" "
1420 5	B	4.5	6.47	-1.6	264	9.97	6.75	1.14	" "
6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER:

(PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT and T Data Center WELL ID: MW-8
SITE ADDRESS: Bothell, WA BLIND ID:
DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		(CLOUDY)		RAIN		?		TEMPERATURE:	(F) 50.	°C

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
3/1/13	13:37	.	.	5.09	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" = 0.041	(2" = 0.163)	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	3/1/13	14:15	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	3/1/13	14:15	B	2	250, 500, (1L)	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
	VOA - Glass	(8260) (8011) BTEX OR [ ] WA [X]
	AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx OR [ ] WA [X]
	WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
	YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
	GREEN - Poly	(Cyanide)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 13:37 Pump/Bailer Inlet Depth: 8.37'

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1340	0	B	0.00	6.31	-56.9	830	10.51	5.09	5.63	clearish w/ sheen
1345	1	B	0.2	6.30	-69.1	844	10.50	5.63	1.81	"
1350	2	B	0.6	6.31	-73.3	855	10.51	5.82	1.11	"
1355	3	B	1.0	6.33	-79.9	870	10.50	6.08	0.92	"
1400	4	B	1.4	6.34	-83.7	887	10.47	6.29	0.86	"
1405	5	B	1.8	6.35	-84.6	901	10.45	6.42	0.72	"
1410	6	B	2.2	6.36	-85.9	917	10.48	6.73	0.65	"

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Nentz (PRINTED NAME) (SIGNATURE)

Attachment 3
October 8 and 9, 2013 Analytical Reports

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 29, 2013

Tim O'Conner
Shaw Group
12100 NE 195th St.
Bothell, WA 98011

RE: Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Dear Tim O'Conner:
Enclosed are the analytical results for sample(s) received by the laboratory on October 05, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report, REV-1 10/29/13. Per client request, updated VOC list to just report BTEX.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross

jennifer.gross@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10244700001	ATT-DISC-10/3/13	Water	10/03/13 13:15	10/05/13 08:40
10244700002	TRIP BLANK	Water	10/03/13 00:00	10/05/13 08:40

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SAMPLE ANALYTE COUNT

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10244700001	ATT-DISC-10/3/13	NWTPH-Dx	JRH	4
		EPA 8260	LPM	7
10244700002	TRIP BLANK	EPA 8260	LPM	7

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Sample: ATT-DISC-10/3/13 **Lab ID: 10244700001** Collected: 10/03/13 13:15 Received: 10/05/13 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.74**	mg/L	0.39	1	10/16/13 13:09	10/18/13 13:19	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.39	1	10/16/13 13:09	10/18/13 13:19	64742-65-0	
Surrogates								
o-Terphenyl (S)	72	%	30-125	1	10/16/13 13:09	10/18/13 13:19	84-15-1	
n-Triacontane (S)	84	%	30-125	1	10/16/13 13:09	10/18/13 13:19	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/16/13 21:03	71-43-2	
Ethylbenzene	**1.6**	ug/L	1.0	1		10/16/13 21:03	100-41-4	
Toluene	ND	ug/L	1.0	1		10/16/13 21:03	108-88-3	
Xylene (Total)	**3.0**	ug/L	3.0	1		10/16/13 21:03	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	95	%	75-125	1		10/16/13 21:03	17060-07-0	
Toluene-d8 (S)	98	%	75-125	1		10/16/13 21:03	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125	1		10/16/13 21:03	460-00-4	

Sample: TRIP BLANK **Lab ID: 10244700002** Collected: 10/03/13 00:00 Received: 10/05/13 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/16/13 16:03	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/16/13 16:03	100-41-4	
Toluene	ND	ug/L	1.0	1		10/16/13 16:03	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/16/13 16:03	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	75-125	1		10/16/13 16:03	17060-07-0	
Toluene-d8 (S)	98	%	75-125	1		10/16/13 16:03	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125	1		10/16/13 16:03	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

QC Batch: MSV/25309
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10244700001, 10244700002

METHOD BLANK: 1553530 Matrix: Water
Associated Lab Samples: 10244700001, 10244700002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/16/13 14:58	
Ethylbenzene	ug/L	ND	1.0	10/16/13 14:58	
Toluene	ug/L	ND	1.0	10/16/13 14:58	
Xylene (Total)	ug/L	ND	3.0	10/16/13 14:58	
1,2-Dichloroethane-d4 (S)	%	96	75-125	10/16/13 14:58	
4-Bromofluorobenzene (S)	%	100	75-125	10/16/13 14:58	
Toluene-d8 (S)	%	98	75-125	10/16/13 14:58	

LABORATORY CONTROL SAMPLE: 1553531

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.4	97	75-125	
Ethylbenzene	ug/L	20	18.8	94	75-125	
Toluene	ug/L	20	19.9	99	75-125	
Xylene (Total)	ug/L	60	59.8	100	75-125	
1,2-Dichloroethane-d4 (S)	%			96	75-125	
4-Bromofluorobenzene (S)	%			100	75-125	
Toluene-d8 (S)	%			99	75-125	

MATRIX SPIKE SAMPLE: 1554765

Parameter	Units	10244925001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	20.3	101	70-135	
Ethylbenzene	ug/L	ND	20	20.1	100	75-125	
Toluene	ug/L	ND	20	20.5	102	75-125	
Xylene (Total)	ug/L	ND	60	63.5	106	75-125	
1,2-Dichloroethane-d4 (S)	%				98	75-125	
4-Bromofluorobenzene (S)	%				98	75-125	
Toluene-d8 (S)	%				99	75-125	

SAMPLE DUPLICATE: 1554769

Parameter	Units	10244916004 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	.87J		30	
Ethylbenzene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	98	96	2		

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

SAMPLE DUPLICATE: 1554769

Parameter	Units	10244916004 Result	Dup Result	RPD	Max RPD	Qualifiers
4-Bromofluorobenzene (S)	%	98	99	.7		
Toluene-d8 (S)	%	98	97	1		

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(612)607-1700

QUALITY CONTROL DATA

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

QC Batch: OEXT/23350
QC Batch Method: EPA 3510
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10244700001

METHOD BLANK: 1553816
Matrix: Water
Associated Lab Samples: 10244700001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	10/18/13 08:06	
Motor Oil Range SG	mg/L	ND	0.40	10/18/13 08:06	
n-Triacontane (S)	%	78	30-125	10/18/13 08:06	
o-Terphenyl (S)	%	62	30-125	10/18/13 08:06	

LABORATORY CONTROL SAMPLE & LCSD: 1553817 1553818

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.5	1.6	77	79	50-150	1	20	
Motor Oil Range SG	mg/L	2	1.6	1.6	78	79	50-150	2	20	
n-Triacontane (S)	%				82	78	30-125			
o-Terphenyl (S)	%				78	78	30-125			

SAMPLE DUPLICATE: 1553446

Parameter	Units	10245389002 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	ND	.15J		30	
Motor Oil Range SG	mg/L	ND	ND		30	
n-Triacontane (S)	%	82	71	15		
o-Terphenyl (S)	%	72	67	6		

SAMPLE DUPLICATE: 1553819

Parameter	Units	10244525001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	0.41	0.77	60	30	D6
Motor Oil Range SG	mg/L	ND	.12J		30	
n-Triacontane (S)	%	81	90	16		
o-Terphenyl (S)	%	72	76	12		

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

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(612)607-1700

METHOD CROSS REFERENCE TABLE

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Parameter	Matrix	Analytical Method	Preparation Method
8260 VOC	Water	SW-846 8260B/5030B	N/A

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(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 146714.05 ATT-BOTHELL REV1
Pace Project No.: 10244700

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10244700001	**ATT-DISC-10/3/13**	EPA 3510	OEXT/23350	NWTPH-Dx	GCSV/12249
10244700001	**ATT-DISC-10/3/13**	EPA 8260	MSV/25309		
10244700002	**TRIP BLANK**	EPA 8260	MSV/25309		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1132

10244700

SW GW Clean

Page: 1 of 1

1626050

Section A Required Client Information:

Company:	CBI
Address:	1240 ONE FIFTH ST. SUITE 150, Bothell
Email To:	TIM@CONNORSHANG.COM
Phone: 425 402 3252	Fax:
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	TIM O'CONNOR
Copy To:	MARK SMITH MSES70@AH.COM
Purchase Order No.:	
Project Name:	ATT - BOTHELL
Project Number:	146714.05

Section C Invoice Information:

Attention:	MARK SMITH
Company Name:	TITAN / ATT
Address:	
Pace Quote Reference:	
Pace Project Manager:	JENNA GROSS
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER BCB/054

Site Location STATE: WA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: B260B	NWTPH-Dx w/SG Cl	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	ATT-DISC-10/3/13	GW	G	10/3/13	1315				4				X						X	X		001
2																						002
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/3/13	1600	PACE	10-3-13	1600	3.1	Y	N	Y
				Pace	10-3-13	2340	1.0	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.07	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: CB1

Project #: WO#: 10244700

10244700

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5779 5330 5036

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☒ Yes ☐ No

Thermom. Used: ☐ 80512447 ☐ 72337080 ☐ B88A912167504 ☒ B88A9132521491 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.2 **Cooler Temp Corrected (°C):** 1.0 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** -.2 **Date and Initials of Person Examining Contents:** CB 10-5-13

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☐ No	☒ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☒ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☒ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☒ No	☐ N/A	14.
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☒ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): 062413-3				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 10/7/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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October 29, 2013

Tim O'Conner
Shaw Group
12100 NE 195th St.
Bothell, WA 98011

RE: Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Dear Tim O'Conner:
Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report, REV-1 10/29/13. Per client request, updated VOC list to just report BTEX.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross

jennifer.gross@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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(612)607-1700

CERTIFICATIONS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10245389001	MW -2- 10/8/13	Water	10/08/13 13:50	10/10/13 10:50
10245389002	MW -1- 10/8/13	Water	10/08/13 15:10	10/10/13 10:50
10245389003	MW -3- 10/8/13	Water	10/08/13 16:20	10/10/13 10:50
10245389004	MW -5- 10/9/13	Water	10/09/13 09:45	10/10/13 10:50
10245389005	MW -6- 10/9/13	Water	10/09/13 10:40	10/10/13 10:50
10245389006	MW -4- 10/9/13	Water	10/09/13 12:00	10/10/13 10:50
10245389007	MW -7- 10/9/13	Water	10/09/13 13:20	10/10/13 10:50
10245389008	MW -8- 10/9/13	Water	10/09/13 14:10	10/10/13 10:50
10245389009	MW -18- 10/9/13	Water	10/09/13 14:20	10/10/13 10:50
10245389010	TRIP BLANK	Water	10/08/13 00:00	10/10/13 10:50

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SAMPLE ANALYTE COUNT

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10245389001	MW -2- 10/8/13	NWTPH-Dx	JRH	4
		EPA 8260	LPM	7
10245389002	MW -1- 10/8/13	NWTPH-Dx	JRH	4
		EPA 8260	EB2	7
10245389003	MW -3- 10/8/13	NWTPH-Dx	MT	4
		EPA 8260	EB2	7
10245389004	MW -5- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389005	MW -6- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389006	MW -4- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389007	MW -7- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389008	MW -8- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389009	MW -18- 10/9/13	NWTPH-Dx	MT	4
		EPA 8260	LPM	7
10245389010	TRIP BLANK	EPA 8260	EB2	7

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ANALYTICAL RESULTS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Sample: MW -2- 10/8/13 **Lab ID: 10245389001** Collected: 10/08/13 13:50 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.42	1	10/16/13 13:09	10/18/13 13:41	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	10/16/13 13:09	10/18/13 13:41	64742-65-0	
Surrogates								
o-Terphenyl (S)	72	%	30-125	1	10/16/13 13:09	10/18/13 13:41	84-15-1	
n-Triacontane (S)	84	%	30-125	1	10/16/13 13:09	10/18/13 13:41	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/21/13 16:27	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/21/13 16:27	100-41-4	
Toluene	**1.8**	ug/L	1.0	1		10/21/13 16:27	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/21/13 16:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%	75-125	1		10/21/13 16:27	17060-07-0	
Toluene-d8 (S)	101	%	75-125	1		10/21/13 16:27	2037-26-5	
4-Bromofluorobenzene (S)	106	%	75-125	1		10/21/13 16:27	460-00-4	

Sample: MW -1- 10/8/13 **Lab ID: 10245389002** Collected: 10/08/13 15:10 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.42	1	10/16/13 13:09	10/18/13 14:03	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	10/16/13 13:09	10/18/13 14:03	64742-65-0	
Surrogates								
o-Terphenyl (S)	72	%	30-125	1	10/16/13 13:09	10/18/13 14:03	84-15-1	
n-Triacontane (S)	82	%	30-125	1	10/16/13 13:09	10/18/13 14:03	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/18/13 13:14	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/18/13 13:14	100-41-4	
Toluene	ND	ug/L	1.0	1		10/18/13 13:14	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/18/13 13:14	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%	75-125	1		10/18/13 13:14	17060-07-0	
Toluene-d8 (S)	102	%	75-125	1		10/18/13 13:14	2037-26-5	
4-Bromofluorobenzene (S)	106	%	75-125	1		10/18/13 13:14	460-00-4	

Sample: MW -3- 10/8/13 **Lab ID: 10245389003** Collected: 10/08/13 16:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.42	1	10/22/13 12:47	10/24/13 09:19	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	10/22/13 12:47	10/24/13 09:19	64742-65-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Sample: MW -3- 10/8/13 **Lab ID: 10245389003** Collected: 10/08/13 16:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Surrogates								
o-Terphenyl (S)	60	%	30-125	1	10/22/13 12:47	10/24/13 09:19	84-15-1	
n-Triacontane (S)	65	%	30-125	1	10/22/13 12:47	10/24/13 09:19	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/18/13 13:30	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/18/13 13:30	100-41-4	
Toluene	ND	ug/L	1.0	1		10/18/13 13:30	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/18/13 13:30	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%	75-125	1		10/18/13 13:30	17060-07-0	
Toluene-d8 (S)	103	%	75-125	1		10/18/13 13:30	2037-26-5	
4-Bromofluorobenzene (S)	106	%	75-125	1		10/18/13 13:30	460-00-4	

Sample: MW -5- 10/9/13 **Lab ID: 10245389004** Collected: 10/09/13 09:45 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 09:41	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 09:41	64742-65-0	
Surrogates								
o-Terphenyl (S)	70	%	30-125	1	10/22/13 12:47	10/24/13 09:41	84-15-1	
n-Triacontane (S)	75	%	30-125	1	10/22/13 12:47	10/24/13 09:41	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/23/13 17:23	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/23/13 17:23	100-41-4	
Toluene	ND	ug/L	1.0	1		10/23/13 17:23	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/23/13 17:23	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	75-125	1		10/23/13 17:23	17060-07-0	
Toluene-d8 (S)	99	%	75-125	1		10/23/13 17:23	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125	1		10/23/13 17:23	460-00-4	

Sample: MW -6- 10/9/13 **Lab ID: 10245389005** Collected: 10/09/13 10:40 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 10:04	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 10:04	64742-65-0	
Surrogates								
o-Terphenyl (S)	67	%	30-125	1	10/22/13 12:47	10/24/13 10:04	84-15-1	
n-Triacontane (S)	71	%	30-125	1	10/22/13 12:47	10/24/13 10:04	638-68-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Sample: MW -6- 10/9/13 **Lab ID: 10245389005** Collected: 10/09/13 10:40 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/23/13 17:39	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/23/13 17:39	100-41-4	
Toluene	ND	ug/L	1.0	1		10/23/13 17:39	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/23/13 17:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	75-125	1		10/23/13 17:39	17060-07-0	
Toluene-d8 (S)	99	%	75-125	1		10/23/13 17:39	2037-26-5	
4-Bromofluorobenzene (S)	97	%	75-125	1		10/23/13 17:39	460-00-4	

Sample: MW -4- 10/9/13 **Lab ID: 10245389006** Collected: 10/09/13 12:00 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 10:26	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.41	1	10/22/13 12:47	10/24/13 10:26	64742-65-0	
Surrogates								
o-Terphenyl (S)	64	%	30-125	1	10/22/13 12:47	10/24/13 10:26	84-15-1	
n-Triacontane (S)	69	%	30-125	1	10/22/13 12:47	10/24/13 10:26	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/13 01:58	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/13 01:58	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/13 01:58	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/13 01:58	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%	75-125	1		10/20/13 01:58	17060-07-0	
Toluene-d8 (S)	103	%	75-125	1		10/20/13 01:58	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125	1		10/20/13 01:58	460-00-4	

Sample: MW -7- 10/9/13 **Lab ID: 10245389007** Collected: 10/09/13 13:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.42	1	10/22/13 12:47	10/24/13 10:48	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	10/22/13 12:47	10/24/13 10:48	64742-65-0	
Surrogates								
o-Terphenyl (S)	65	%	30-125	1	10/22/13 12:47	10/24/13 10:48	84-15-1	
n-Triacontane (S)	68	%	30-125	1	10/22/13 12:47	10/24/13 10:48	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/13 02:14	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/13 02:14	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/13 02:14	108-88-3	

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ANALYTICAL RESULTS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Sample: MW -7- 10/9/13 **Lab ID: 10245389007** Collected: 10/09/13 13:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Xylene (Total)	ND	ug/L	3.0	1		10/20/13 02:14	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%	75-125	1		10/20/13 02:14	17060-07-0	
Toluene-d8 (S)	102	%	75-125	1		10/20/13 02:14	2037-26-5	
4-Bromofluorobenzene (S)	104	%	75-125	1		10/20/13 02:14	460-00-4	

Sample: MW -8- 10/9/13 **Lab ID: 10245389008** Collected: 10/09/13 14:10 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**2.2**	mg/L	0.40	1	10/22/13 12:47	10/24/13 11:11	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	10/22/13 12:47	10/24/13 11:11	64742-65-0	
Surrogates								
o-Terphenyl (S)	66	%	30-125	1	10/22/13 12:47	10/24/13 11:11	84-15-1	
n-Triacontane (S)	76	%	30-125	1	10/22/13 12:47	10/24/13 11:11	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/13 02:29	71-43-2	
Ethylbenzene	**1.1**	ug/L	1.0	1		10/20/13 02:29	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/13 02:29	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/13 02:29	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	75-125	1		10/20/13 02:29	17060-07-0	
Toluene-d8 (S)	103	%	75-125	1		10/20/13 02:29	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125	1		10/20/13 02:29	460-00-4	

Sample: MW -18- 10/9/13 **Lab ID: 10245389009** Collected: 10/09/13 14:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.9**	mg/L	0.42	1	10/22/13 12:47	10/24/13 11:33	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	10/22/13 12:47	10/24/13 11:33	64742-65-0	
Surrogates								
o-Terphenyl (S)	70	%	30-125	1	10/22/13 12:47	10/24/13 11:33	84-15-1	
n-Triacontane (S)	80	%	30-125	1	10/22/13 12:47	10/24/13 11:33	638-68-6	
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/13 02:44	71-43-2	
Ethylbenzene	**1.1**	ug/L	1.0	1		10/20/13 02:44	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/13 02:44	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/13 02:44	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	75-125	1		10/20/13 02:44	17060-07-0	

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ANALYTICAL RESULTS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Sample: MW -18- 10/9/13 **Lab ID: 10245389009** Collected: 10/09/13 14:20 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Surrogates								
Toluene-d8 (S)	101	%	75-125	1		10/20/13 02:44	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125	1		10/20/13 02:44	460-00-4	

Sample: TRIP BLANK **Lab ID: 10245389010** Collected: 10/08/13 00:00 Received: 10/10/13 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/18/13 10:42	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/18/13 10:42	100-41-4	
Toluene	ND	ug/L	1.0	1		10/18/13 10:42	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/18/13 10:42	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%	75-125	1		10/18/13 10:42	17060-07-0	
Toluene-d8 (S)	102	%	75-125	1		10/18/13 10:42	2037-26-5	
4-Bromofluorobenzene (S)	107	%	75-125	1		10/18/13 10:42	460-00-4	

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: MSV/25334 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10245389002, 10245389003, 10245389010

METHOD BLANK: 1555076 Matrix: Water
Associated Lab Samples: 10245389002, 10245389003, 10245389010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/18/13 10:27	
Ethylbenzene	ug/L	ND	1.0	10/18/13 10:27	
Toluene	ug/L	ND	1.0	10/18/13 10:27	
Xylene (Total)	ug/L	ND	3.0	10/18/13 10:27	
1,2-Dichloroethane-d4 (S)	%	114	75-125	10/18/13 10:27	
4-Bromofluorobenzene (S)	%	106	75-125	10/18/13 10:27	
Toluene-d8 (S)	%	102	75-125	10/18/13 10:27	

LABORATORY CONTROL SAMPLE: 1555077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.4	102	75-125	
Ethylbenzene	ug/L	20	19.8	99	75-125	
Toluene	ug/L	20	18.8	94	75-125	
Xylene (Total)	ug/L	60	58.3	97	75-125	
1,2-Dichloroethane-d4 (S)	%			112	75-125	
4-Bromofluorobenzene (S)	%			106	75-125	
Toluene-d8 (S)	%			103	75-125	

MATRIX SPIKE SAMPLE: 1556763

Parameter	Units	10245503004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	22.4	112	70-135	
Ethylbenzene	ug/L	ND	20	21.9	110	75-125	
Toluene	ug/L	ND	20	20.7	104	75-125	
Xylene (Total)	ug/L	ND	60	64.8	108	75-125	
1,2-Dichloroethane-d4 (S)	%				114	75-125	
4-Bromofluorobenzene (S)	%				105	75-125	
Toluene-d8 (S)	%				104	75-125	

SAMPLE DUPLICATE: 1556764

Parameter	Units	10245503005 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	113	114	.7		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

SAMPLE DUPLICATE: 1556764

Parameter	Units	10245503005 Result	Dup Result	RPD	Max RPD	Qualifiers
4-Bromofluorobenzene (S)	%	105	106	.3		
Toluene-d8 (S)	%	103	102	.9		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: MSV/25353
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10245389001

METHOD BLANK: 1556955
Matrix: Water
Associated Lab Samples: 10245389001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/21/13 10:32	
Ethylbenzene	ug/L	ND	1.0	10/21/13 10:32	
Toluene	ug/L	ND	1.0	10/21/13 10:32	
Xylene (Total)	ug/L	ND	3.0	10/21/13 10:32	
1,2-Dichloroethane-d4 (S)	%	111	75-125	10/21/13 10:32	
4-Bromofluorobenzene (S)	%	105	75-125	10/21/13 10:32	
Toluene-d8 (S)	%	102	75-125	10/21/13 10:32	

LABORATORY CONTROL SAMPLE: 1556956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.7	104	75-125	
Ethylbenzene	ug/L	20	20.5	103	75-125	
Toluene	ug/L	20	19.5	97	75-125	
Xylene (Total)	ug/L	60	60.8	101	75-125	
1,2-Dichloroethane-d4 (S)	%			111	75-125	
4-Bromofluorobenzene (S)	%			104	75-125	
Toluene-d8 (S)	%			104	75-125	

MATRIX SPIKE SAMPLE: 1556977

Parameter	Units	10246056010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	21.0	104	70-135	
Ethylbenzene	ug/L	0.61J	20	20.0	97	75-125	
Toluene	ug/L	0.52J	20	19.3	94	75-125	
Xylene (Total)	ug/L	ND	60	60.1	100	75-125	
1,2-Dichloroethane-d4 (S)	%				113	75-125	HS
4-Bromofluorobenzene (S)	%				105	75-125	
Toluene-d8 (S)	%				102	75-125	

SAMPLE DUPLICATE: 1556978

Parameter	Units	10246056012 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Ethylbenzene	ug/L	0.48J	.56J		30	
Toluene	ug/L	0.45J	.52J		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	112	111	2		HS

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

SAMPLE DUPLICATE: 1556978

Parameter	Units	10246056012 Result	Dup Result	RPD	Max RPD	Qualifiers
4-Bromofluorobenzene (S)	%	105	104	.9		
Toluene-d8 (S)	%	101	101	.09		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: MSV/25354 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10245389006, 10245389007, 10245389008, 10245389009

METHOD BLANK: 1556957 Matrix: Water
Associated Lab Samples: 10245389006, 10245389007, 10245389008, 10245389009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/19/13 21:55	
Ethylbenzene	ug/L	ND	1.0	10/19/13 21:55	
Toluene	ug/L	ND	1.0	10/19/13 21:55	
Xylene (Total)	ug/L	ND	3.0	10/19/13 21:55	
1,2-Dichloroethane-d4 (S)	%	108	75-125	10/19/13 21:55	
4-Bromofluorobenzene (S)	%	104	75-125	10/19/13 21:55	
Toluene-d8 (S)	%	102	75-125	10/19/13 21:55	

LABORATORY CONTROL SAMPLE: 1556958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.4	97	75-125	
Ethylbenzene	ug/L	20	19.3	97	75-125	
Toluene	ug/L	20	18.0	90	75-125	
Xylene (Total)	ug/L	60	58.8	98	75-125	
1,2-Dichloroethane-d4 (S)	%			111	75-125	
4-Bromofluorobenzene (S)	%			104	75-125	
Toluene-d8 (S)	%			104	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1556959 1556960

Parameter	Units	10246158002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	0.79J	20	20	24.2	23.8	117	115	70-135	2	30	
Ethylbenzene	ug/L	1.0 U	20	20	23.2	22.6	116	113	75-125	3	30	
Toluene	ug/L	1.0 U	20	20	21.1	20.5	105	102	75-125	3	30	
Xylene (Total)	ug/L	3.0 U	60	60	68.5	67.4	114	112	75-125	2	30	
1,2-Dichloroethane-d4 (S)	%						112	113	75-125			
4-Bromofluorobenzene (S)	%						105	105	75-125			
Toluene-d8 (S)	%						100	100	75-125			

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: MSV/25357 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10245389004, 10245389005

METHOD BLANK: 1557276 Matrix: Water
Associated Lab Samples: 10245389004, 10245389005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/23/13 12:27	
Ethylbenzene	ug/L	ND	1.0	10/23/13 12:27	
Toluene	ug/L	ND	1.0	10/23/13 12:27	
Xylene (Total)	ug/L	ND	3.0	10/23/13 12:27	
1,2-Dichloroethane-d4 (S)	%	99	75-125	10/23/13 12:27	
4-Bromofluorobenzene (S)	%	98	75-125	10/23/13 12:27	
Toluene-d8 (S)	%	100	75-125	10/23/13 12:27	

LABORATORY CONTROL SAMPLE: 1557277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.1	90	75-125	
Ethylbenzene	ug/L	20	19.1	95	75-125	
Toluene	ug/L	20	19.0	95	75-125	
Xylene (Total)	ug/L	60	58.9	98	75-125	
1,2-Dichloroethane-d4 (S)	%			98	75-125	
4-Bromofluorobenzene (S)	%			97	75-125	
Toluene-d8 (S)	%			101	75-125	

MATRIX SPIKE SAMPLE: 1557278

Parameter	Units	1226675009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	18.5	93	70-135	
Ethylbenzene	ug/L	ND	20	19.3	97	75-125	
Toluene	ug/L	ND	20	19.6	98	75-125	
Xylene (Total)	ug/L	ND	60	59.6	99	75-125	
1,2-Dichloroethane-d4 (S)	%				97	75-125	
4-Bromofluorobenzene (S)	%				97	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 1557279

Parameter	Units	1226675020 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	98	98	.2		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

SAMPLE DUPLICATE: 1557279

Parameter	Units	1226675020 Result	Dup Result	RPD	Max RPD	Qualifiers
4-Bromofluorobenzene (S)	%	98	98	.05		
Toluene-d8 (S)	%	100	100	.5		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: OEXT/23350
QC Batch Method: EPA 3510
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10245389001, 10245389002

METHOD BLANK: 1553816 Matrix: Water
Associated Lab Samples: 10245389001, 10245389002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	10/18/13 08:06	
Motor Oil Range SG	mg/L	ND	0.40	10/18/13 08:06	
n-Triacontane (S)	%	78	30-125	10/18/13 08:06	
o-Terphenyl (S)	%	62	30-125	10/18/13 08:06	

LABORATORY CONTROL SAMPLE & LCSD: 1553817 1553818

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.5	1.6	77	79	50-150	1	20	
Motor Oil Range SG	mg/L	2	1.6	1.6	78	79	50-150	2	20	
n-Triacontane (S)	%				82	78	30-125			
o-Terphenyl (S)	%				78	78	30-125			

SAMPLE DUPLICATE: 1553446

Parameter	Units	10245389002 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	ND	.15J		30	
Motor Oil Range SG	mg/L	ND	ND		30	
n-Triacontane (S)	%	82	71	15		
o-Terphenyl (S)	%	72	67	6		

SAMPLE DUPLICATE: 1553819

Parameter	Units	10244525001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	0.41	0.77	60	30	D6
Motor Oil Range SG	mg/L	ND	.12J		30	
n-Triacontane (S)	%	81	90	16		
o-Terphenyl (S)	%	72	76	12		

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QUALITY CONTROL DATA

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

QC Batch: OEXT/23410 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3510 Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10245389003, 10245389004, 10245389005, 10245389006, 10245389007, 10245389008, 10245389009

METHOD BLANK: 1558813 Matrix: Water
Associated Lab Samples: 10245389003, 10245389004, 10245389005, 10245389006, 10245389007, 10245389008, 10245389009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	10/24/13 08:12	
Motor Oil Range SG	mg/L	ND	0.40	10/24/13 08:12	
n-Triacontane (S)	%	59	30-125	10/24/13 08:12	
o-Terphenyl (S)	%	59	30-125	10/24/13 08:12	

LABORATORY CONTROL SAMPLE & LCSD: 1558814 1558815

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.3	1.4	67	69	50-150	4	20	
Motor Oil Range SG	mg/L	2	1.3	1.3	64	66	50-150	3	20	
n-Triacontane (S)	%				66	69	30-125			
o-Terphenyl (S)	%				67	69	30-125			

SAMPLE DUPLICATE: 1558820

Parameter	Units	10245389009 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	1.9	1.8	6	30	
Motor Oil Range SG	mg/L	ND	.042J		30	
n-Triacontane (S)	%	80	77	4		
o-Terphenyl (S)	%	70	66	5		

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QUALIFIERS

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

METHOD CROSS REFERENCE TABLE

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Parameter	Matrix	Analytical Method	Preparation Method
8260 VOC	Water	SW-846 8260B/5030B	N/A

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 146714.04 ATT-BOTHELL REV1
Pace Project No.: 10245389

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10245389001	MW -2- 10/8/13	EPA 3510	OEXT/23350	NWTPH-Dx	GCSV/12249
10245389002	MW -1- 10/8/13	EPA 3510	OEXT/23350	NWTPH-Dx	GCSV/12249
10245389003	MW -3- 10/8/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389004	MW -5- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389005	MW -6- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389006	MW -4- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389007	MW -7- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389008	MW -8- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389009	MW -18- 10/9/13	EPA 3510	OEXT/23410	NWTPH-Dx	GCSV/12290
10245389001	MW -2- 10/8/13	EPA 8260	MSV/25353		
10245389002	MW -1- 10/8/13	EPA 8260	MSV/25334		
10245389003	MW -3- 10/8/13	EPA 8260	MSV/25334		
10245389004	MW -5- 10/9/13	EPA 8260	MSV/25357		
10245389005	MW -6- 10/9/13	EPA 8260	MSV/25357		
10245389006	MW -4- 10/9/13	EPA 8260	MSV/25354		
10245389007	MW -7- 10/9/13	EPA 8260	MSV/25354		
10245389008	MW -8- 10/9/13	EPA 8260	MSV/25354		
10245389009	MW -18- 10/9/13	EPA 8260	MSV/25354		
10245389010	TRIP BLANK	EPA 8260	MSV/25334		

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Pace Analytical
www.pacelabs.com

115325

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10245589

Page: 1 of 1

1626051

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: CBI	Report To: Tim O'Connor	Attention: Mark Smith
Address: 12100 NE 195th St Bothell, WA 98011	Copy To: Mark Smith	Company Name: Titan / ATT
Email To: tim.oconnor@shawgrp.com	Purchase Order No.:	Address:
Phone: 425-402-3252 Fax:	Project Name: ATT-Bothell	Pace Quote Reference:
Requested Due Date/TAT: STD	Project Number: 146714.04	Pace Project Manager: Jenna Gross
		Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☒ OTHER ecology

Site Location STATE: WA

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START Grab DATE	COLLECTED: COMPOSITE START Grab TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260B	NWTPH-Dx w/SGC	Residual Chlorine (Y/N)	w/ Silica gel clean up	Pace Project No./ Lab I.D.
1	MW-2-10/8/13	WT	G	10/8	1350					5				X					Y	X	X				001
2	MW-1-10/8/13	WT	G	10/8	1510					5				X						X	X				002
3	MW-3-10/8/13	WT	G	10/8	1620					5				X						X	X				003
4	MW-5-10/9/13	WT	G	10/9	0945					5				X						X	X				004
5	MW-6-10/9/13	WT	G	10/9	1040					5				X						X	X				005
6	MW-4-10/9/13	WT	G	10/9	1200					5				X						X	X				006
7	MW-7-10/9/13	WT	G	10/9	1320					5				X						X	X				007
8	MW-8-10/9/13	WT	G	10/9	1410					5				X						X	X				008
9	MW-18-10/9/13	WT	G	10/9	1420					5				X						X	X				009
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/10/13	1050	PACE	10-10-13	1050	2.1	Y	N	Y
				CSI/Pace	101113	9114	3.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Tyson Wentz

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/10/13

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.07	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: CBI

Project #: WO#: 10245389

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other: _____

Tracking Number: 5779 5350 5220

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: _____ Temp Blank? ☑ Yes ☐ No

Thermom. Used: ☐ 80512447 ☐ 72337080 ☑ 088A912167504 ☐ 088A9132521491 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.0 Cooler Temp Corrected (°C): 3.9 Biological Tissue Frozen? ☐ Yes ☐ No

Temp should be above freezing to 6°C Correction Factor: -0.1 Date and Initials of Person Examining Contents: CSL 10-11-13

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☑ No	☐ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12) Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (Water)	☐ Yes	☐ No	☑ N/A	Initial when completed: CSL Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15. 4TB
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (If purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: ENH Date: 10/15/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Attachment 4
October 8 and 9, 2013 Field Sampling Data Sheets

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT+T Bothell Data Center WELL ID: MW-1

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	(SUNNY)		(CLOUDY)		(RAIN)			?			

TEMPERATURE: (°F) 50. °C (Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/8/13	14:25	13.40	.	3.43	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/8/13	15:10	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	10/8/13	15:10	B	2	(250), 500, 1L	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NW TPH-Dx w/ SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO_3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 14:28 Pump/Bailer Inlet Depth: 6.8'

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp (°C)	DTW	Diss O_2 (mg/l)	Water Quality
1435	0	B	0.750.00	6.20	-122.5	.518	17.45	4.15	1.09	turbid
1440	1	B	1.25	6.20	-144	.530	17.89	4.90	0.65	11
1446	2	B	1.4	6.21	-144	.526	17.99	5.43	0.56	
1452	3	B	1.7	6.21	-149	.515	18.01	5.71	0.50	
1458	4	B	2.0	6.22	-158	.503	17.95	6.18	0.44	
1505	5	B	2.3	6.24	-164	.500	17.89	6.45	0.42	
	6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Weitz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT and T Bothell Data Center WELL ID: MW-2

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		(CLOUDY)		(RAIN)		?		TEMPERATURE:	°F .	°C

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/8/13	13:12	12.86	.	5.96	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" =	0.041	2" =	0.163	3" =	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: 8.96 [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	10/8/13	13:50	TUBE	3	40 ml HCl	YES	NO		
Amber Glass	10/8/13	13:50	B	2	250, 500, 1L (None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:	PBOB	2	250, 500, 1L None HCl	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500 HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L HNO_3	YES	YES		
	/ /	:			250, 500, 1L	YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
	VOA - Glass	(8260) (8011) OR [ ] WA [X]
	AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx w/SGC OR [ ] WA [X]
	WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
	YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
	GREEN - Poly	(Cyanide)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 13:12 Pump/Bailer Inlet Depth: 8.96

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (mS/cm)	°F Temp (°C)	DTW	Diss O_2 (mg/l)	Water Quality
13:16	0	B	10.00	5.92	116.9	.274	16.23	6.89	2.98	SLIGHTLY NRBID
13:22	1	B	1.5	5.96	-13.8	.224	16.47	7.40	2.23	
13:27	2	B	2.0	5.91	-44.9	.242	16.39	7.92	1.66	
13:33	3	B	2.5	5.91	-33.9	.305	16.38	8.63	1.27	
13:38	4	B	2.8	5.93	-51.8	.330	16.27	8.98	1.16	
13:43	5	B	3.1	5.95	-54.2	.345	16.23	9.38	0.92	
13:48	6	B	3.3	5.92	-55.4	.357	16.17	9.66	0.88	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT&T Bothell Data Center WELL ID: MW-3

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY	CLOUDY	RAIN		?				TEMPERATURE:	(F) 50.	°C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/8/13	15 :35	13 .09	.	4 .01	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" =	0.041	2" =	0.163	3" =	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	10/8/13	16 :20	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	10/8/13	16 : 20	B	2	(250) 500, 1L	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx W/SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 15 :44 Pump/Bailer Inlet Depth: 7.05

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp (°C)	DTW	Diss O_2 (mg/l)	Water Quality
1550	0	B	0.0075	6.38	-74	0.308	16 .17	4.18	2 .14	Cleardish
1555	1	B	1.0	6.30	-88	0.306	16 .14	4.20	1 .59	
1600	2	B	1.2	6.24	-93	0.304	16 .19	4.22	1 .24	
1605	3	B	1 .5	6.20	-95	0.303	16 .28	4.23	0 .93	
1610	4	B	1 .8	6.18	-96	0.301	16 .30	4.24	0 .80	
1615	5		.	6.16	-96	0.300	16 .34	4.26	0 .73	
	6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT+T Bothell Data Center WELL ID: MW-4

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY	CLOUDY		RAIN		?			TEMPERATURE:	(°F) 50.	°C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/9/13	12:08	13.25	.	1.98	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" =	0.041	2" =	0.163	3" =	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative (circle)	Ice	Filter	pH	√
VOA Glass	10/9/13	12:00	B	3	40 ml	(HCl)	(YES)	NO		
Amber Glass	10/9/13	12:00	B	2	(250) 500, 1L	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx W/SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO_3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tann'n/Lign'n)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 11:20 Pump/Bailer Inlet Depth: 5.0'

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1127	B	0.7 0.00	7.50	-35	0.235	13.91	3.02	2.61	clearish
1132	B	1.1	7.82	-51	0.235	13.76	3.04	1.13	
1137	B	1.3	7.60	-56	0.235	13.71	3.05	0.83	
1142	B	1.5	7.43	-57	0.235	13.64	3.08	0.68	
1147	B	1.9	7.23	-58	0.235	13.59	3.10	0.66	
1152	B	2.5	7.18	-58	0.234	13.52	3.11	0.67	
6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT+T Bothell Data Center WELL ID: MW-5

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: (F) 45. °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/9/13	09:00	13.30	.	4.73	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/9/13	09:45	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	10/9/13	09:45	B	2	(250) 500, 1L	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx W/ SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO_3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 09:11 Pump/Bailer Inlet Depth: 8.0'

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
0917	0	B	0.00	6.14	-68	.582	16.70	5.38	2.70	clearish
0923	1	B	1.1	6.26	-121	.595	17.06	5.85	1.38	|
0928	2	B	1.3	6.27	-130	.600	17.20	6.01	0.83	|
0933	3	B	1.6	6.26	-128	.602	17.29	6.19	0.78	|
0938	4	B	2.0	6.25	-127	.606	17.40	6.41	0.77	|
	5		.	.			.	.	.	
	6		.	.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.

12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT+T Bothell Data Center WELL ID: MW-6

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	(LIGHT)	MEDIUM	HEAVY
WEATHER:	(SUNNY)		CLOUDY		RAIN		?		TEMPERATURE:	° F	° C

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/9/13	:	12.85	.	4.05	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163	1" =	0.041	2" =	0.163	3" =	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/9/13	10 : 40	B	3	(40 ml)	(HCl)	(YES)	NO		
Amber Glass	10/9/13	10 : 40	B	2	(250) 500, 1L	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3

Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPHDx w/ SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA

Purge Start Time: 10 : 07 Pump/Bailer Inlet Depth: 7.4'

	Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1012	0	B	0.005	6.32	-83	.374	19 .63	4.55	1 .88	clear
1017	1	B	1.1	6.18	-92	.375	19 .68	5.18	0 .73	"
1022	2	B	1.5	6.15	-96	.376	19 .80	5.64	0 .65	
1027	3	B	1.9	6.13	-99	.378	20 .03	6.05	0 .59	
1032	4	B	2.5	6.07	-108	.384	20 .01	6.72	0 .56	
1037	5	B	3.1	6.06	-110	.389	20 .10	7.35	0 .53	
	6			.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT+T Bothell Data Center WELL ID: MW-7

SITE ADDRESS: BLIND ID:

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY	CLOUDY			RAIN		?		TEMPERATURE:	°F 54	°C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
10/9/13	12:45	13.35	.	3.35	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth:

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√ if used
VOA Glass	10/9/13	13:20	B	3	(40 ml)	(HCl)	YES	NO		
Amber Glass	10/9/13	13:20	B	2	(250, 500, 1L	(None) (HCl) (H_2SO_4)	YES	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [ ]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx w/SGC OR [ ] WA [√]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 12:47 Pump/Bailer Inlet Depth: 7.5'

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1252 0	B	0.7 0:00	6.56	-67	.276	14.84	4.25	1.16	clearish
1257 1	B	1.1	6.48	-24	.282	14.96	4.76	0.67	
1302 2	B	1.5	6.43	-31	.280	15.00	5.08	0.57	
1307 3	B	1.9	6.43	-37	.289	15.05	5.51	0.55	
1312 4	B	2.3	6.44	-43	.288	15.10	5.92	0.54	
5		.	.			.	.	.	
6		.	.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

Shaw® Environmental, Inc.
12100 NE 195th Street, Suite 150
Bothell, WA 98011
Office: (425) 485-5000 Fax: (425) 486-9766

PROJECT NAME: AT&T Dista Center Bothell WELL ID: MW-8

SITE ADDRESS: BLIND ID:

DUP ID: MW-18 1420 NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	(LIGHT)	MEDIUM	HEAVY
WEATHER:	(SUNNY)		CLOUDY		RAIN		?		TEMPERATURE:	°F	°C

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) [Product Thickness] [Water Column] [Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
/ /	:	13.05	.	5.35	.	.	X 1	.
/ /	:	.	.	.	.		X 3	.

Gal/ft = (dia./2)² x 0.163 | 1" = 0.041 | 2" = 0.163 | 3" = 0.367 | 4" = 0.653 | 6" = 1.469 | 10" = 4.080 | 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/9/13	14:10	B	3	(40 mL)	(YES)	NO		
Amber Glass	10/9/13	14:10	B	2	(250, 500, 1L)	(None) (HCl) (H_2SO_4)	(YES)	NO		
White Poly	/ /	:			250, 500, 1L	None	YES	NO	NA	
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	/ /	:			125, 250, 500	HNO_3	YES	NO		
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
VOA - Glass	(8260) (8011) OR [ ] WA [X]
AMBER - Glass	(8080) (8150) (TOX) NWTPH-Dx w/SGC OR [ ] WA [X]
WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (Silica, T.) (NO3)
YELLOW - Poly	(COD) (TOC) (NH_3) (NO_3/NO_2) (Tannin/Lignin)
GREEN - Poly	(Cyanide)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hardness)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Na)

WATER QUALITY DATA Purge Start Time: 13:33 Pump/Bailer Inlet Depth: 8.5'

Meas.	Method §	Purged (gal)	pH	ORP	E Cond (µS)	°F Temp °C	DTW	Diss O_2 (mg/l)	Water Quality
1321 0	B	1 (0.00)	6.46	-113	.736	17.91	6.61	1.10	
1326 1	B	1.3	6.42	-113	.732	18.03	7.15	0.57	
1331 2	B	1.5	6.40	-109	.729	18.07	7.35	0.33	
1336 3	B	1.8	6.37	-104	.723	18.02	7.62	0.24	
1401 4	B	2.3	6.36	-99	.716	17.95	7.81	0.22	
5		.	.			.	.	.	
6		.	.			.	.	.	

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Tyson Wentz (PRINTED NAME) (SIGNATURE)