Groundwater Monitoring Report
Tarr, LLC Vancouver Cardlock Site
Vancouver, Washington

Prepared for:
Tarr, LLC

March 19, 2015
1821-00

APEX

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Carmen Owens
Senior Staff

State of Washington
Hydrogeologist
1778
Licensed Geologist
JOHN P. FOXWELL

John Foxwell, L.G.
Senior Associate Hydrogeologist

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1.0 Introduction

1.1 Purpose

This report summarizes the data collected during groundwater monitoring completed at the Tarr, LLC Vancouver Cardlock Site located at 7208 NE St. Johns Road in Vancouver, Washington (the Facility; Figures 1 and 2). The report also includes a summary proposed remaining activities required for closure. Investigation and remediation at the Site are being conducted under the oversight of the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program.

1.2 Report Scope

This report includes a summary of the data collected for remedial performance monitoring at the Tarr Vancouver site since the air sparge/soil vapor extraction (Enhanced SVE) remediation system began continuous operation in September 2012. Additionally, compliance monitoring actions at the Facility are currently underway, and the first quarter of groundwater data is presented in this report.

1.3 Site Location and Description

The Site is comprised of two parcels of land (Figure 2). The northwest parcel (APN 149261000) is approximately 0.1 acre and includes a dwelling (currently used as an office). The main parcel (APN 149264000) is approximately 1.54 acres, and includes a shop building, an office/warehouse building, one 10,000-gallon diesel underground storage tank (UST), one 5,000-gallon gasoline UST, one 3,000-gallon gasoline UST, one 6,000-gallon off-road diesel aboveground storage tank (AST), two 250-gallon used/new oil ASTs, and a fueling canopy. The canopy is at the south side of the Site, near St. Johns Road.

Two of the USTs (the 10,000-gallon diesel and 5,000-gallon gasoline) are adjacent to the west and east sides of the canopy. The USTs dispense fuel through dispensers under the canopy and from a satellite dispenser, south of the canopy. The third UST (3,000-gallon gasoline) is west of the office/warehouse building. A dispenser at the southwest corner of the office/warehouse building dispenses gasoline from the 3,000-gallon UST.

During a Phase II Environmental Site Assessment (ESA) conducted by Ash Creek (Ash Creek, 2011a), two remediation areas were identified (Figure 3). Petroleum hydrocarbons in soil and groundwater that are consistent with a surface release were identified in the area of the 3,000-gallon UST near the west side of the warehouse (UST area). The second area identified was soil around the dispenser for the 3,000-gallon UST, which is south of the office (dispenser area).

A remedial action consisting of an air sparge/soil vapor extraction system and soil excavation was proposed in the *Proposal for Remediation Activities* (Ash Creek, 2011). The remedial action was approved in Ecology's opinion letter dated October 13, 2012. The AS/SVE system remedial action activities included

soil removal activities around the satellite gasoline dispenser, operation of an Enhanced SVE system, and removal and assessment of an abandoned UST. Construction of the Enhanced SVE system was completed in summer 2012, and the system operation began in September 2012. Excavation of the contaminated soil around the gasoline dispenser was completed in May 2012 and included the removal and disposal of contaminated soil down to a depth of 4 feet below ground surface (bgs).

A previously unknown 1,000 gallon gasoline UST (abandoned UST) was discovered during construction of the Enhanced SVE system. The UST was removed under oversight of a licensed contractor, and a release was reported to Ecology on May 21, 2012. Contaminated soil was excavated and disposed, and soil and groundwater assessment of the abandoned UST area was completed. The Enhanced SVE system for the 3,000-gallon UST was expanded for cleanup in this area.

Initially, the Enhanced SVE system operated from September 2012 through January 2014. Groundwater data from March 2014 indicated that well MW-1 did not meet MTCA Method 1 groundwater cleanup levels for diesel range petroleum hydrocarbons. Because of this, the system was turned back on in September 2014. The system then operated until December 2014, prior to the January groundwater monitoring event. The system has remained off to assess the effectiveness of the remediation.

2.0 Groundwater Monitoring

The groundwater monitoring scope of services consisted of the following activities:

- Measure water levels in monitoring wells;
- Collect samples of groundwater from monitoring wells; and
- Analyze groundwater samples for volatile organic compounds (VOCs) and other target analytes.

Groundwater samples were collected and analyzed from monitoring wells MW-1 through MW-3 in May and June of 2011. Monitoring wells MW-2 and MW-3 were removed from the groundwater monitoring program after these events due to two consecutive groundwater monitoring events with no detections of contaminants of concern above method detection limits. Monitoring wells MW-1, MW-4, and MW-5 were sampled during four performance groundwater monitoring events in 2013 and 2014, and during the first compliance monitoring event in January 2015.

Water Levels. Depth to groundwater was measured in each well using an oil/water interface probe. During the performance monitoring events, depth to water at the Facility ranged from 7.45 to 11.86 feet bgs. Groundwater elevations ranged from 250.62 to 254.98 feet above sea level in wells MW-1 through MW-3. Monitoring wells MW-4 and MW-5 have not been surveyed; therefore, elevation data is not available.

During the compliance monitoring event in January 2015, depth to water at the Facility ranged from 10.59 to 11.75 feet bgs. Groundwater elevations ranged from 250.81 to 251.14 feet above sea level in wells MW-1 through MW-3.

Depth to groundwater measurements and groundwater elevations are listed in Table 1. Figure 2 shows the groundwater elevations in the monitoring wells and the corresponding groundwater contours during the January 2015 compliance groundwater monitoring event. Figure 2 also shows a rose diagram illustrating the variation in groundwater flow direction observed during the different monitoring events.

Purging and Sampling. After the groundwater levels were measured, each well was purged with a peristaltic pump. Field parameters (including temperature, pH, specific conductance, dissolved oxygen concentration, and oxygen-reduction potential [ORP]) were measured during sampling to assess the effectiveness of the purging. Field parameters are listed in Table 1. After purging was completed, samples were collected in laboratory-supplied sample containers, marked with identifying information, and maintained under chain-of-custody protocols.

Handling of Investigation-Derived Waste. Investigation-derived waste (IDW) consisted of decontamination water, purge water, and personal protective equipment (PPE). PPE was disposed of as solid waste. IDW water is stored in an onsite tank. IDW Water will be removed from the site for treatment at the conclusion of the groundwater monitoring program.

3.0 Groundwater Chemical Analytical Results

3.1 Groundwater Analysis Scope

Groundwater analyses were completed by Pace Analytical in Minneapolis, Minnesota. Appendix A presents a copy of the laboratory reports for the groundwater samples. A quality assurance review of the data was completed. Results flagged with data qualifiers can be seen in Table 2. The data were found to be acceptable for use.

Groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons (TPH) by Method NWTPH-DX and NWTPH-Gx,
- VOCs by U.S. Environmental Protection Agency (EPA) Method 8260B,
- 1,2-Dibromoethane (EDB) by EPA Method 8011,
- Lead by EPA Method 6020; and
- Dissolved lead by EPA Method 6020.

3.2 Performance Monitoring Analytical Results

This section describes the results of remedial performance groundwater monitoring completed in 2013 and 2014. Monitoring wells MW-2 and MW-3 are excluded from the monitoring program. MW-2 and MW-3 are located downgradient of the remediation area, west of the warehouse. These wells were sampled during the May and June 2011 groundwater monitoring events, and results were below detection limits for both TPH and VOCs in both wells.

Monitoring wells MW-1, MW-4, and MW-5 were sampled during the 2013 and 2014 groundwater monitoring events. Samples were analyzed for gasoline-range hydrocarbons (TPH-G) and VOCs during all monitoring events. Lead was analyzed in well MW-4 during the October 2013 and February 2014 events and in well MW-1 during the February 2014 event. Diesel-range hydrocarbons (TPH-D) were analyzed during the February 2014 event.

Monitoring wells MW-1 and MW-4 are within the remediation area west of the warehouse, and MW-5 is located at the satellite dispenser area. In summary:

- Since performance monitoring began, MW-1, MW-4, and MW-5 have not had any detections of VOC gasoline constituents or TPH-G above Model Toxics Control Act (MTCA) Method A groundwater cleanup levels.
- Significant concentration decreases have been accomplished by the Enhanced SVE system, including:
    - In MW-1, the source area with pre-remediation groundwater data, TPH-G concentration decreases from 78,000 micrograms per liter (µg/L) to 134 µg/L have occurred. Similar trends for VOC gasoline constituents have been observed.
    - Concentrations of TPH-D were below MTCA Method A groundwater cleanup levels in MW-4 and MW-5, and only exceeded the cleanup levels in MW-1 (concentration of 850 µg/L compared to 500 µg/L cleanup level). MW-4 is adjacent to a gasoline UST and is only known to have contained gasoline. Testing during the site investigation indicates that the diesel fraction is the result of overlap from the gasoline range.

Concentrations of gasoline additives (e.g., EDB, lead, methyl tertiary-butyl ether [MTBE]) have been analyzed and detected concentrations were below MTCA Method A groundwater cleanup levels as of March 2014. In summary:

- Lead was not detected in MW-1. Lead was detected above the Method A values in MW-4 in October 2013 (38.6 µ/L). The concentration of lead was below the Method A value in the February 2014 event (6.3 µ/L). Lead was not detected above the Method A groundwater cleanup level in SB-5, a direct-push sample collected at the location of MW-5.

- Monitoring well MW-4 had concentrations of EDB above the Method A values in January (0.14 µ/L) and May (0.017 µ/L) 2013. Concentrations of EDB were below detection limits in the two most recent performance monitoring events (October 2013 and February 2014).
- Monitoring well MW-5 is directly downgradient of the 3,000-gallon UST dispenser. MW-5 had a detection of EDB above the Method A value in May 2013 (0.062 µg/L). EDB has been below detection limits in the last three consecutive performance monitoring events. All other analyzed constituents have been below Method A values.
- MTBE is generally only detected in MW-5. The maximum detected concentration was 4.2 µg/L, which is below the MTCA Method A groundwater cleanup level for MTBE of 20 µg/L.

3.3 Compliance Monitoring Analytical Results

This section describes the results of compliance groundwater monitoring completed in January 2015. Monitoring wells MW-1, MW-4, and MW-5 were sampled during the January 2015 groundwater monitoring event. Samples were analyzed for TPH-G, TPH-D, lead, EDB, and VOCs. Dissolved lead was also analyzed in well MW-4.

No analytes were detected above MTCA Method A groundwater cleanup levels in any of the monitoring wells. Overall, concentrations of TPH-G and TPH-D continue to show a decreasing trend, and concentrations are expected to decrease further over time. Concentrations of VOCs and lead continue to be under MTCA Method A groundwater cleanup levels. This data shows that the January 2015 monitoring event has met the criteria for initial compliance. Three more consecutive quarters of compliant data are now required to achieve compliance.

4.0 Future Compliance Monitoring

Based on the groundwater data, the inferred groundwater gradient is generally to the west/northwest (Figure 3).

The primary detected analytes are TPH and associated fuel VOCs. Monitoring wells MW-1 and MW-4 are within the remediation area west of the warehouse, and MW-5 is located at the satellite gasoline dispenser. All concentrations were below MTCA Method A groundwater cleanup levels in the most recent groundwater event.

Monitoring wells MW-2 and MW-3 are downgradient of the remediation area west of the warehouse. The lack of detectable concentrations of TPH, VOCs, and lead in these wells demonstrate the remediation area is limited to the area immediately west of the warehouse and near the satellite gasoline dispenser.

The activities planned to achieve compliance under the Ecology *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology, 2011) is outlined below.

4.1 Groundwater

Compliance for groundwater requires four consecutive quarters of groundwater monitoring with TPH, VOCs, and lead below the Method A cleanup values, with the remediation system turned off. This site has one post-remediation groundwater monitoring event, in January 2015, with concentrations of TPH-D, TPH-G, VOCs, and lead below the Method A cleanup values. Three additional quarters of groundwater monitoring will complete the compliance requirements for the groundwater parameters.

4.2 Vapor

In their October 13, 2011 comment letter, Ecology required a vapor intrusion evaluation for the warehouse since the gasoline UST was located less than 50 feet from the warehouse. The abandoned gasoline UST was also found to be less than 50 feet from the warehouse. Vapor point VP-1 was installed less than 10 feet from both USTs and 5 feet from the warehouse (see VP-1). The results of the vapor point sampling are reported in the *Construction and Startup Report* (Apex, 2013). Table 3 of this report repeats the results. The results of soil vapor sampling from VP-1 (Table 3) detected no concentrations of site contaminants of concern in soil vapor above MTCA Method B soil vapor screening levels. This indicates that vapor intrusion to the adjacent structure is unlikely to result in human health risks under baseline conditions, and the remediation that has occurred since the vapor sampling in 2011 has only further improved the vapor intrusion pathway. Further evaluation of this pathway is not proposed.

4.3 Soil

Confirmation soil samples will be collected from the area treated by the enhanced SVE system where soil samples previously exceeded MTCA Method A (Figure 4). These areas include:

- SB-6 and MW-1 area; and
- Center of abandoned UST, near former SB-18.

Soil samples will be collected from approximately 12 to 13 feet bgs, which corresponds to the interval where maximum contamination was observed. The sample interval will be confirmed during field sampling using photoionization detector (PID) field screening. Soil samples will be analyzed for TPH-G, TPH-D, VOCs, and lead.

5.0 Closing

This report describes the results of the performance groundwater monitoring during operation of the enhanced SVE system at the Tarr Vancouver site. This report also includes the results of the first quarter of compliance groundwater monitoring and the proposed scope of soil monitoring. Currently, the system remains off as groundwater compliance monitoring is underway, with three additional quarters remaining.

6.0 References

Ash Creek, 2011a. *Phase II Environmental Site Assessment, Vancouver Cardlock, 7208 NE St. Johns Road, Vancouver, Washington*. March 21, 2011.

Ash Creek, 2011b. *Addenda Letter Report, Supporting Information, Vancouver Cardlock, 7208 NE St. Johns Road, Vancouver, Washington.* July 7, 2011.

Ash Creek, 2011c. *Proposal for Remediation Action Activities, Tarr Vancouver Facility.* December 2, 2011.

Apex, 2013. *Remediation Startup and Construction Report, Tarr, LLC Vancouver Cardlock Facility*. February 8, 2013.

Washington State Department of Ecology, 2011. *Guidance for Remediation of Petroleum Contaminated Sites.* September, 2011.

Table 1
Groundwater Elevations and Field Parameters
Vancouver Cardlock RI/FS and Cleanup Action Plan
Vancouver, Washington

Sample Point	Sample Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters				
					Temperature (°C)	pH	Conductivity (µS)	ORP (mV)	DO (ppm)
MW-1	5/10/2011	262.43	7.45	254.98	12.73	7.84	815	-85.4	0.7
	6/13/2011		8.13	254.30	NA	NA	NA	NA	NA
	2/23/2012		9.96	252.47	NS	NS	NS	NS	NS
	4/25/2012		8.21	254.22	NS	NS	NS	NS	NS
	1/14/2013		8.76	253.67	12.58	6.64	149	99.7	3.61
	5/2/2013		9.23	253.20	14.20	6.73	220	100.8	0.68
	10/31/2013		11.49	250.94	13.51	6.19	211	118.1	2.51
	3/3/2014		10.32	252.11	11.61	6.69	171	186.3	1.84
	1/2/2015		11.29	251.14	14.17	8.45	880	-118.8	0.72
MW-2	5/10/2011	262.48	8.78	253.70	11.05	5.98	94	105.6	3.7
	6/13/2011		8.43	254.05	NA	NA	NA	NA	NA
	2/23/2012		10.45	252.03	NS	NS	NS	NS	NS
	4/25/2012		8.51	253.97	NS	NS	NS	NS	NS
	1/14/2013		9.00	253.48	NS	NS	NS	NS	NS
	5/2/2013		8.58	253.90	NS	NS	NS	NS	NS
	10/31/2013		11.86	250.62	NS	NS	NS	NS	NS
	3/3/2014		10.64	251.84	NS	NS	NS	NS	NS
	1/2/2015		11.67	250.81	NS	NS	NS	NS	NS
MW-3	5/10/2011	262.74	7.90	254.84	14.84	6.16	533	87.1	0.88
	6/13/2011		8.57	254.17	NA	NA	NA	NA	NA
	2/23/2012		10.27	252.47	NS	NS	NS	NS	NS
	4/25/2012		8.51	254.23	NS	NS	NS	NS	NS
	1/14/2013		9.14	253.60	NS	NS	NS	NS	NS
	5/2/2013		9.62	253.12	NS	NS	NS	NS	NS
	10/31/2013		11.72	251.02	NS	NS	NS	NS	NS
	3/3/2014		10.82	251.92	NS	NS	NS	NS	NS
	1/2/2015		11.75	250.99	NS	NS	NS	NS	NS
MW-4	1/14/2013	NA	8.81	--	12.11	6.51	71	103.4	0.72
	5/2/2013		9.26	--	13.59	6.63	101	112.1	1.68
	10/31/2013		11.51	--	13.15	6.82	100	112.0	1.02
	3/3/2014		10.43	--	11.89	6.55	82	195.5	2.67
	1/2/2015		11.31	--	13.84	7.86	474	-46.1	3.33
MW-5	1/14/2013	NA	8.04	--	14.46	5.95	410	105.6	0.39
	5/2/2013		8.58	--	15.61	6.62	546	127.8	0.99
	10/31/2013		10.83	--	14.93	6.13	431	109.5	1.25
	3/3/2014		9.64	--	13.89	6.44	651	195.4	0.63
	1/2/2015		10.59	--	15.35	6.82	841	100.5	0.53

Notes:

1. Monitoring well survey conducted on May 25, 2011 by Statewide Land Survey, Inc.
2. Vertical control establsihed using Global Positioning System, vertical Datum is NAVD 88.
4. °C = Degrees Celsius.
5. µS = Microsiemens.
6. mV = Millivolts.
7. ppm = Parts per million.
8. NS = Not sampled
9. NA = Not available

Table 2
Groundwater Analytical Results
Tarr, LLC Cardlock Facility
Vancouver, Washington

Sample Number:	MW-1								MW-2		MW-3		MW-4					MW-5					Washington MTCA Groundwater Method A, Table Value
Sample Date:	5/10/2011	5/10/2011 DUP	6/13/2011	1/14/2013	5/2/2013	10/31/2013	2/24/2014	1/2/2015	5/10/2011	6/13/2011	5/10/2011	6/13/2011	1/14/2013	5/2/2013	10/31/2013	2/24/2014	1/2/2015	1/14/2013	5/2/2013	10/31/2013	2/24/2014	1/2/2015	
Petroleum Hydrocarbons (µg/L)																							
TPH-Diesel Range	4,800	5,100	--	--	--	--	850 [10]	450	<76	--	<76	--	--	--	--	84 [10]	56 J	--	--	--	210 [10]	130 J	500
TPH-Oil Range	440	490	--	--	--	--	330 [10]	160 J	<380	--	<380	--	--	--	--	110 [10]	83 J	--	--	--	170 [10]	83 J	500
TPH-Gasoline Range	78,200	78,000	--	416	230	401	134	165	<50	--	<50	--	<43.0	<43	<50.0	<50.0	<50.0	<43.0	<43.0	<50.0	<50.0	<50.0	800
VOCs (µg/L)																							
1,1,1,2-Tetrachloroethane	<1.0	--	<1.0	<0.36	<0.36	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.36	<0.36	<0.50	<0.50	<0.50	<0.36	<0.36	<0.50	<0.50	<0.50	--
1,1,1-Trichloroethane	<1.0	--	<1.0	<0.19	<0.19	<0.50	<0.50	<0.26	<1.0	<1.0	<1.0	<1.0	<0.19	<0.19	<0.50	<0.50	<0.26	<0.19	<0.19	<0.50	<0.50	<0.26	200
1,1,2,2-Tetrachloroethane	<1.0	--	<1.0	<0.097	<0.097	<0.13	<0.13	<0.50	<1.0	<1.0	<1.0	<1.0	<0.097	<0.097	<0.13	<0.13	<0.50	<0.097	<0.097	<0.13	<0.13	<0.50	--
1,1,2-Trichloroethane	<1.0	--	<1.0	<0.083	<0.15	<0.16	<0.16	<0.14	<1.0	<1.0	<1.0	<1.0	<0.15	<0.15	<0.16	<0.16	<0.14	<0.15	<0.15	<0.16	<0.16	<0.14	--
1,1,2-Trichlorotrifluoroethane	--	--	<1.0	<0.18	<0.18	<0.33	<0.33	<0.50	--	--	--	--	<0.18	<0.18	<0.33	<0.33	<0.50	<0.18	<0.18	<0.33	<0.33	<0.50	
1,1-Dichloroethane	<1.0	--	<1.0	<0.11	<0.11	<0.50	<0.50	<0.16	<1.0	<1.0	<1.0	<1.0	<0.11	<0.11	<0.50	<0.50	<0.16	<0.11	<0.11	<0.50	<0.50	<0.16	--
1,1-Dichloroethene	<1.0	--	<1.0	<0.19	<0.19	<0.24	<0.24	<0.20	<1.0	<1.0	<1.0	<1.0	<0.19	<0.19	<0.24	<0.24	<0.20	<0.19	<0.19	<0.24	<0.24	<0.20	--
1,1-Dichloropropene	<1.0	--	<1.0	<0.35	<0.35	<0.25	<0.25	<0.50	<1.0	<1.0	<1.0	<1.0	<0.35	<0.35	<0.25	<0.25	<0.50	<0.35	<0.35	<0.25	<0.25	<0.50	--
1,2,3-Trichlorobenzene	<1.0	--	<1.0	<0.13	<0.13	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.13	<0.13	<0.50	<0.50	<0.50	<0.13	<0.13	<0.50	<0.50	<0.50	--
1,2,3-Trichloropropane	<1.0	--	<1.0	<0.33	<0.33	<0.54	<0.54	<1.2	<1.0	<1.0	<1.0	<1.0	<0.33	<0.33	<0.54	<0.54	<1.2	<0.33	<0.33	<0.54	<0.54	<1.2	--
1,2,4-Trichlorobenzene	<1.0	--	<1.0	<0.25	<0.25	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.25	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	<0.50	--
1,2,4-Trimethylbenzene	4,150	--	4,290	37.2	7.4	48.7	9.6	7.4	<1.0	<1.0	<1.0	<1.0	0.12 J	<0.071	<0.50	<0.50	<0.50	<0.071	<0.071	<0.50	<0.050	<0.50	--
1,2-Dibromo-3-chloropropane	<4.0	--	<4.0	<0.62	<0.62	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<4.0	<0.62	<0.62	<2.0	<0.23	<2.0	<0.62	<0.62	<2.0	<2.0	<2.0	--
1,2-Dibromoethane (EDB)	<1.0	--	<0.0093*	<0.091	<0.00027*	<0.0027*	<0.0023*	<0.0044*	<1.0	<0.0093*	<1.0	<0.0094*	0.14 J	0.017*	<0.0028*	<0.0027*	<0.0044*	<0.0028*	0.062*	<0.0028*	<0.0027*	<0.0044*	0.01
1,2-Dichlorobenzene	<1.0	--	<1.0	<0.36	<0.36	<0.092	<0.092	<0.16	<1.0	<1.0	<1.0	<1.0	<0.36	<0.36	<0.092	<0.092	<0.16	<0.36	<0.36	<0.092	<0.092	<0.16	--
1,2-Dichloroethane	<1.0	--	<1.0	<0.37	<0.37	<0.22	<0.22	<0.13	<1.0	<1.0	<1.0	<1.0	<0.37	<0.37	<0.22	<0.22	<0.13	<0.37	<0.37	<0.22	<0.22	<0.13	5
1,2-Dichloroethene (Total)	<2.0	--	<2.0	--	--	<0.47	--	--	<2.0	<2.0	<2.0	<2.0	-	--	<0.47	--	--	--	--	<0.47	<0.20	--	--
1,2-Dichloropropane	<1.0	--	<1.0	<0.27	<0.27	<0.20	<0.20	<0.14	<1.0	<1.0	<1.0	<1.0	<0.27	<0.27	<0.20	<0.20	<0.14	<0.27	<0.27	<0.20	<0.50	<0.14	--
1,3,5-Trimethylbenzene	881	--	<1.0	11.1	2.1	15.4	0.77J	1.4	<1.0	<1.0	<1.0	<1.0	<0.087	<0.087	<0.50	<0.50	<0.50	<0.087	<0.087	<0.50	<0.50	<0.50	--
1,3-Dichlorobenzene	<1.0	--	<1.0	<0.11	0.35J	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.11	0.27	<0.50	<0.50	<0.50	<0.11	0.27J	<0.50	<0.50	<0.50	--
1,3-Dichloropropane	<1.0	--	<1.0	<0.081	<0.081	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.081	<0.081	<0.50	<0.50	<0.50	<0.081	<0.081	<0.50	<0.50	<0.50	--
1,4-Dichlorobenzene	<1.0	--	<1.0	<0.064	<0.064	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.064	<0.064	<0.50	<0.50	<0.50	<0.064	<0.064	<0.50	<0.50	<0.50	--
2,2-Dichloropropane	<1.0	--	<1.0	<0.15	<0.15	<0.50	<0.50	<0.17	<1.0	<1.0	<1.0	<1.0	<0.15	<0.15	<0.50	<0.50	<0.17	<0.15	<0.15	<0.50	<0.50	<0.17	--
2-Butanone (MEK)	<5.0	--	<5.0	<2.0	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<5.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	<2.5	--
2-Chlorotoluene	<1.0	--	<1.0	<0.50	<0.5	<0.50	<0.50	<0.14	<1.0	<1.0	<1.0	<1.0	<0.50	<0.5	<0.50	<0.50	<0.14	<0.50	<0.5	<0.50	<0.50	<0.14	--
2-Hexanone	<5.0	--	<5.0	<2.0	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<5.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	<2.5	--
4-Chlorotoluene	<1.0	--	<1.0	<0.068	<0.068	<0.23	<0.23	<0.083	<1.0	<1.0	<1.0	<1.0	<0.068	<0.068	<0.23	<0.23	<0.083	<0.068	<0.068	<0.23	<0.23	<0.083	--
4-Methyl-2-pentanone (MIBK)	<5.0	--	6.3	<2.0	<2.5	<0.50	<2.5	<2.5	<5.0	<5.0	<5.0	<5.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	<2.5	--
Acetone	6.0	--	<5.0	<12.5	<10	<10.0	<10.0	<10.0	<5.0	<5.0	<5.0 M1	<5.0	<12.5	<10.0	<10.0	<10	<10.0	<12.5	<10.0	<10.0	<10.0	<10.0	--
Benzene	1,350	--	2,020	0.29 J	0.078J	0.34 J	<0.24	0.25 J	<1.0	<1.0	<1.0	<1.0	<0.062	<0.062	<0.24	<0.24	<0.15	<0.062	<0.062	<0.24	<0.24	<0.15	5
Bromobenzene	<1.0	--	<1.0	<0.086	<0.086	<0.23	<0.23	<0.13	<1.0	<1.0	<1.0	<1.0	<0.082	<0.086	<0.23	<0.23	<0.13	<0.068	<0.086	<0.23	<0.23	<0.13	--
Bromochloromethane	<1.0	--	<1.0	<0.32	<0.32	<0.50	<0.50	<0.12	<1.0	<1.0	<1.0	<1.0	<0.32	<0.32	<0.50	<0.50	<0.12	<0.32	<0.32	<0.50	<0.50	<0.12	--
Bromodichloromethane	<1.0	--	<1.0	<0.11	<0.11	<0.25	<0.25	<0.20	<1.0	<1.0	<1.0	<1.0	<0.11	<0.11	<0.25	<0.25	<0.20	<0.11	<0.11	<0.25	<0.25	<0.20	--
Bromoform	<1.0	--	<1.0	<0.068	<0.068	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<0.068	<0.068	<2.0	<2.0	<2.0	<0.068	<0.068	<2.0	<2.0	<2.0	--
Bromomethane	<1.0	--	<1.0	<0.36	1.4J	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<0.36	0.75J	<2.0	<2.0	<2.0	<0.36	1.1J	<2.0	<2.0	<2.0	--
Carbon Disulfide	<1.0	--	<1.0	<0.50	<0.5	<0.22	<0.22	<0.20	<1.0	<1.0	<1.0	<1.0	<0.50	<0.5	<0.22	<0.22	<0.20	<0.50	<0.5	<0.22	<0.22	<0.20 M1	--
Carbon tetrachloride	<1.0	--	<1.0	<0.16	<0.16	<0.31	<0.31	<0.16	<1.0	<1.0	<1.0	<1.0	<0.16	<0.16	<0.31	<0.31	<0.16	<0.16	<0.16	<0.31	<0.31	<0.16	--
Chlorobenzene	<1.0	--	<1.0	<0.10	<0.1	<0.24	<0.24	<0.066	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.24	<0.24	0.63 J	<0.10	<0.10	<0.24	<0.24	<0.066	--
Chloroethane	<1.0	--	<1.0	<0.22	<0.22	<0.50	<0.50	<0.27	<1.0	<1.0	<1.0	<1.0	<0.22	<0.22	<0.50	<0.50	<0.27	<0.22	<0.22	<0.50	<0.50	<0.27 M1	--
Chloroform	<1.0	--	<1.0	<0.14	<0.14	<0.27	<0.27	<0.16	<1.0	<1.0	<1.0	<1.0	<0.14	<0.14	<0.27	<0.27	<0.16	<0.14	<0.14	<0.27	<0.27	<0.16	--
Chloromethane	<1.0	--	<1.0	<0.41	<0.41	<2.0	<2.0	<0.34	<1.0	<1.0	<1.0	<1.0	<0.41	<0.14	<2.0	<2.0	<0.34	<0.41	<0.41	<2.0	<2.0	<0.34	--
Dibromochloromethane	<1.0	--	<1.0	<0.10	<0.10	<0.27	<0.27	<0.50	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.27	<0.27	<0.50	<0.10	<0.10	<0.27	<0.27	<0.50	--
Dibromomethane	<1.0	--	<1.0	<0.21	<0.21	<0.14	<0.38	<0.18	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.14	<0.38	<0.18	<0.21	<0.21	<0.14	<0.38	<0.18	--
Dichlorofluoromethane	--	--	<1.0	<0.11	<0.11	<0.40	<0.40	<0.20	--	--	--	--	<0.11	<0.11	<0.40	<0.40	<0.20	<0.11	<0.11	<0.40	<0.40	<0.20	
Dichlorodifluoromethane	<1.0	--	<1.0	<0.20	<0.2	<0.20	<0.20	<0.50	<1.0	<1.0	<1.0 M1	<1.0	<0.20	<0.2	<0.20	<0.20	<0.50	<0.20	<0.2	<0.20	<0.20	<0.50	--
Diethyl Ether	--	--	<1.0	<2.0	<2.0	<2.0	<2.0	<0.14	--	--	--	--	<2.0	<2.0	<2.0	<2.0	<0.14	<2.0	<2.0	<2.0	<2.0	<0.14	
Ethylbenzene	2,170	--	2,170	10.7	3.9	13.1	1.0	1.3	<1.0	<1.0	<1.0	<1.0	<0.081	<0.081	<0.24	<0.24	0.32 J	<0.081	<0.081	<0.24	<0.24	0.34 J	700
Hexachloro-1,3-butadiene	<1.0	--	<1.0	<0.19	<0.19	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.19	<0.19	<0.50	<0.50	<0.50	<0.19	<0.19	<0.50	<0.50	<0.50	--
Isopropylbenzene (Cumene)	134	--	138	2.1	1.2	9.7	0.56J	1.4	<1.0	<1.0	<1.0	<1.0	<0.076	<0.076	<0.50	<0.50	<0.50	<0.076	<0.076	<0.50	<0.50	<0.50	--
Methyl-tert-butyl ether	1.4	--	<1.0	<0.088	<0.088	<0.50	<0.50	<0.17	<1.0	<1.0	<1.0	<1.0	<0.088	<0.088	<0.50	<0.50	<0.17	4.2	1.9	1.6	2.5	1.8	--
Methylene chloride	<4.0	--	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0 M1	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5
Naphthalene	800	--	730	3.3 J	1.6J	5.4	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	0.24 J	0.083J	<2.0	<2.0	<2.0	0.13 J	<0.068	<2.0	<2.0	<2.0	160
Styrene	<1.0	--	<1.0	<0.060	<0.060	<0.24	<0.24	<0.069	<1.0	<1.0	<1.0	<1.0	<0.060	<0.060	<0.24	<0.24	<0.069	<0.060	<0.060	<0.24	<0.24	<0.069	--
Tetrachloroethene (PCE)	<1.0	--	<1.0	<0.13	<0.13	<0.29	<0.29	<0.16	<1.0	<1.0	<1.0 M1	<1.0	<0.13	<0.13	<0.29	<0.29	<0.16	<0.13	<0.013	<0.29	<0.29	<0.16	5
Tetrahydrofuran	--	--	<1.0	<0.97	<0.97	<2.9	<2.9	<2.0	--	--	--	--	<0.97	<0.97	<2.9	<2.9	<2.0	<0.97	<0.97	<2.9	<2.9	<2.0	
Toluene	728	--	935	0.25 J	0.10J	<0.23	<0.23	<0.11	<1.0	<1.0	<1.0	<1.0	<0.077	<0.077	<0.23	<0.23	<0.11	<0.077	<0.077	<0.23	<0.23	<0.11	1,000
Trichloroethene	<1.0	--	<1.0	<0.083	<0.083	<0.12	<0.13	<0.091	<1.0	<1.0	<1.0	<1.0	<0.13	<0.083	<0.12	<0.13	<0.091	<0.083	<0.083	<0.12	0.13J	<0.091	5
Trichlorofluoromethane	<1.0	--	<1.0	<0.13	<0.13	<0.13	<0.13	<0.22	<1.0	<1.0	<1.0	<1.0	<0.13	<0.13	<0.13	<0.13	<0.22	<0.13	<0.13	<0.13	<0.13	<0.22	--
Vinyl chloride	<1.0	--	<1.0	<0.16	<0.16	<0.14	<0.14	<0.10	<1.0	<1.0	<1.0	<1.0	<0.16	<0.16	<0.14	<0.14	<0.10	<0.16	<0.16	<0.14	<0.14	<0.10	0.2
Xylene (Total)	11,900	--	12,000	25.0	5.5	12.9	8.4	<0.40	<3.0	<3.0	<3.0	<3.0	<0.22	<0.22	<0.72	<0.72	<0.40	<0.22	<0.22	<0.72	<0.72	<0.40	1,000
cis-1,2-Dichloroethene	<1.0	--	<1.0	<0.085	<0.085	<0.23	<0.23	<0.13	<1.0	<1.0	<1.0	<1.0	<0.085	<0.085	<0.23	<0.23	<0.13	<0.085	<0.085	<0.23	<0.23	<0.13	--
cis-1,3-Dichloropropene	<1.0	--	<1.0	<0.090	<0.090	<0.50	<0.50	<0.13	<1.0	<1.0	<1.0	<1.0	<0.090	<0.090	<0.50	<0.50	<0.13	<0.090	<0.090	<0.50	<0.50	<0.13	--
m&p-Xylene	9,280	--	9,340	20.9	4.7	12.9	--	--	<2.0	<2.0	<2.0	<2.0	<0.11	<0.11	<0.48	--	--	<0.11	<0.11	<0.48	--	--	--
n-Butylbenzene	56.8	--	62.6	0.82 J	0.22J	1.4	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.15	<0.15	<0.50	<0.50	<0.50	<0.15	<0.15	<0.50	<0.50	<0.50	--
n-Propylbenzene	340	--	352	6.9	3.5	20.3	0.97J	2.8	<1.0	<1.0	<1.0	<1.0	<0.078	<0.078	<0.50	<0.50	<0.50	<0.078	<0.078	<0.50	<0.50	<0.50	--
o-Xylene	2,640	--	2,630	4.1	0.82J	0.50 J	--	--	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.24	--	--	<0.10	<0.10	<0.24	--	--	--
p-Isopropyltoluene	10.4	--	10.8	0.39 J	0.12J	0.56 J	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.086	<0.086	<0.50	<0.50	<0.50	<0.086	<0.086	<0.50	<0.50	<0.50	--
sec-Butylbenzene	17.3	--	18.0	0.54 J	0.36J	3.1	<0.50	1.7	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.10	<0.50	<0.50	<0.50	--
tert-Butylbenzene	<1.0	--	<1.0	<0.10	<0.1	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.10	<0.50	<0.50	<0.50	--
trans-1,2-Dichloroethene	<1.0	--	<1.0	<0.15	<0.15	<0.24	<0.24	<0.23	<1.0	<1.0	<1.0	<1.0	<0.15	<0.15	<0.24	<0.24	<0.23	<0.15	<0.15	<0.24	<0.24	<0.23	--
trans-1,3-Dichloropropene	<1.0	--	<1.0	<0.37	<0.37	<2.0	<2.0	<0.18	<1.0	<1.0	<1.0	<1.0	<0.37	<0.37	<2.0	<2.0	<0.18	<0.37	<0.37	<2.0	<2.0	<0.18	--
Metals (µg/L)																							
Lead	--	--	<10	--	--	--	<10	0.74	--	<10	--	<10	--	--	36.8 [9]	6.3	1.9	--	--	--	--	0.54	15
Dissolved Lead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4	--	--	--	--	--	--

Notes:

1. VOCs = Volatile organic compounds by EPA Method 8260B.
2. < = Not detected above the indicated method reporting limit (MRL).
3. µg/L = Micrograms per liter (parts per billion [ppb]).
4. **Bold** indicates detected concentration of listed analyte.
5. Shading indicates detected concentration exceeding at least one screening value.
6. M1 = Matrix spike recovery exceeded QC limits.
7. * = Analyzed by EPA Method 8011. Result from Method 8260B not reported.
8. J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
9. Sample for total lead analysis collected on November 11, 2013.
10. Sample for TPH-Diesel Range and TPH-Oil Range analysis collected on March 11, 2014.

Table 3
Soil Vapor Analytical Results
Tarr, LLC Cardlock Facility
Vancouver, Washington

	VP-1	Washington MTCA Method B Soil Gas Screening Levels	
	9/11/2012	C	NC
COMPOUND NAME	(ug/m3)		
trans-1,2-Dichloroethene	<0.60	--	320
Methyl tert-butyl ether	<0.55	96	14,000
Freon 12	2.6	--	--
Freon 114	<1.1	--	--
Chloromethane	<0.31	14	--
1,3-Butadiene	<0.34	0.8	9.1
Bromomethane	<0.59	--	23
Chloroethane	<2.0	--	--
Freon 11	1.1	--	--
Ethanol	3.2	--	--
Freon 113	<1.2	--	--
Acetone	7.6	--	--
2-Propanol	<1.9	--	--
Carbon Disulfide	<2.4	--	3,200
3-Chloropropene	<2.4	--	--
Methylene Chloride	<1.0	53	14,000
Hexane	1.1	--	3,200
2-Butanone (Methyl Ethyl Ketone)	<2.2	--	4,600
Tetrahydrofuran	<2.2	--	--
Chloroform	2.0	1.1	--
Cyclohexane	<0.52	--	--
Carbon Tetrachloride	<0.96	1.7	--
2,2,4-Trimethylpentane	10	--	--
Heptane	0.76	--	--
1,2-Dichloropropane	<0.70	--	18
1,4-Dioxane	0.69	--	--
Bromodichloromethane	<1.0	0.033	--
cis-1,3-Dichloropropene	<0.69	--	--
4-Methyl-2-pentanone	<0.62	--	--
trans-1,3-Dichloropropene	<0.69	--	--
2-Hexanone	<3.1	--	--
Dibromochloromethane	<1.3	0.045	--
1,2-Dibromoethane (EDB)	<1.2	--	--
Chlorobenzene	<0.70	--	80
Styrene	<0.65	44	4,600
Bromoform	<1.6	23	--
Cumene	<0.75	--	1,800
Propylbenzene	<0.75	--	--
4-Ethyltoluene	<0.75	--	--
1,3,5-Trimethylbenzene	<0.75	--	27
1,2,4-Trimethylbenzene	<0.75	--	27
1,3-Dichlorobenzene	<0.91	--	--
1,4-Dichlorobenzene	<0.91	--	3,700
alpha-Chlorotoluene	<0.79	--	--
1,2-Dichlorobenzene	<0.91	--	640
1,2,4-Trichlorobenzene	<5.6	--	910
Hexachlorobutadiene	<8.1	1.1	--
TPH ref. to Gasoline (MW=100)	170	--	--
Vinyl Chloride	0.21	2.8	460
1,1-Dichloroethene	<0.060	--	910
1,1-Dichloroethane	<0.12	--	3,200
cis-1,2-Dichloroethene	<0.12	--	160
1,1,1-Trichloroethane	<0.16	--	48,000
Benzene	0.61	3.2	140
1,2-Dichloroethane	0.60	0.96	22
Trichloroethene	<0.16	1	160
Toluene	0.95	--	22,000
1,1,2-Trichloroethane	<0.16	1.6	--
Tetrachloroethene	<0.21	4.2	160
Ethyl Benzene	0.32	--	4,600
m,p-Xylene	1.4	--	460
o-Xylene	0.54	--	460
1,1,2,2-Tetrachloroethane	<0.21	3.4	--

Notes:

1. ug/m^3 = micrograms per meter cubed (ppbv)
2. **Bold** denotes a concentration above the method detection limit.
3. Highlighting denotes a concentration above one of the Ecology MTCA soil gas screening levels for soil located just below buildings (Table B-1, Ecology, 2009).
4. Samples analyzed with EPA Method TO-15.
5. < = Not detected above the indicated method reporting limit (MRL).
6. "C" refers to the substance's toxicity as a carcinogen, "NC" refers to its toxicity as a non-carcinogen

Note: Base map prepared from USGS 7.5-minute quadrangle of Vancouver and Orchards, WA-OR, dated 2011 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

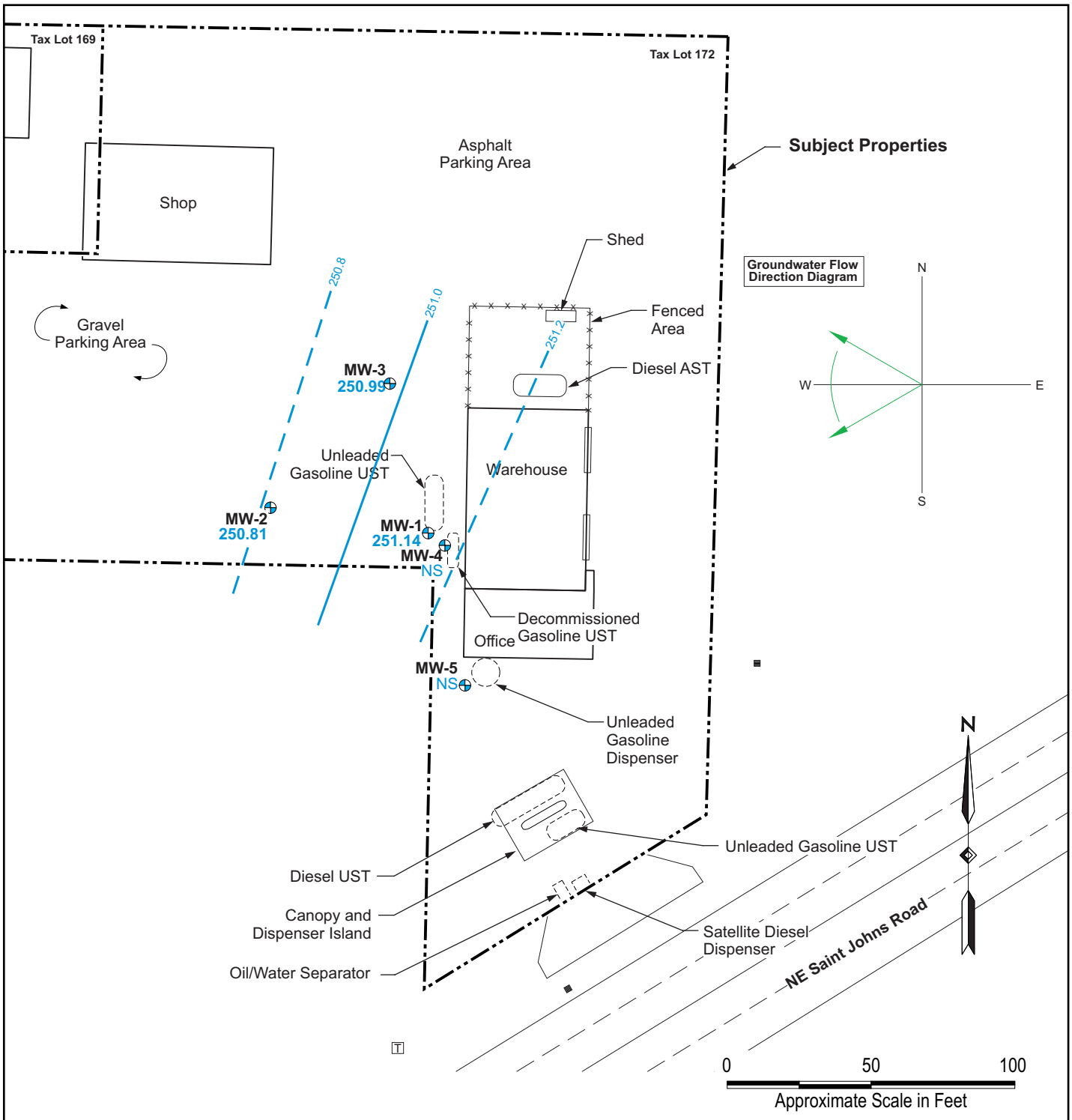
N

Site Location Map

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1821-00	Figure
March 2015		1



Notes: 1) Base map prepared from 2011 - Google Imagery and site reconnaissance by Ash Creek personnel.
2) Site feature locations and dimensions are approximate.

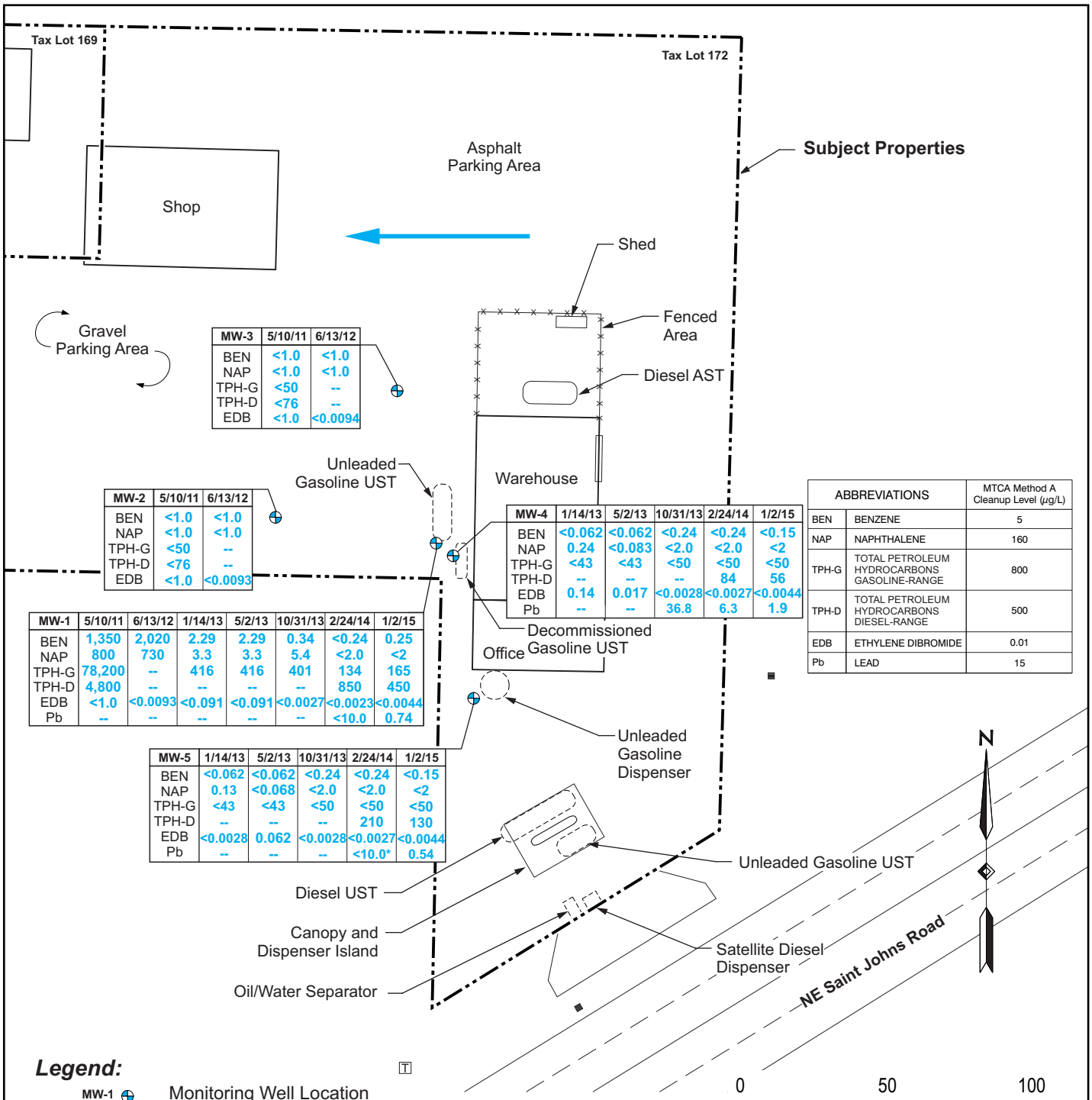
Legend:

- MW-1 / 251.14 — Monitoring Well Location Groundwater Elevation in Feet
- NS — Not Surveyed
- 251 — Groundwater Elevation Contour in Feet (Dashed Where Inferred)
- Approximate Area
- T — Transformer Location
- Catch Basin Location

January 2015 Groundwater Elevations

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington

Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	1821-00	Figure 2
	March 2015		



MW-3	5/10/11	6/13/12
BEN	<1.0	<1.0
NAP	<1.0	<1.0
TPH-G	<50	--
TPH-D	<76	--
EDB	<1.0	<0.0094

MW-2	5/10/11	6/13/12
BEN	<1.0	<1.0
NAP	<1.0	<1.0
TPH-G	<50	--
TPH-D	<76	--
EDB	<1.0	<0.0093

MW-4	1/14/13	5/2/13	10/31/13	2/24/14	1/2/15
BEN	<0.062	<0.062	<0.24	<0.24	<0.15
NAP	0.24	<0.083	<2.0	<2.0	<2
TPH-G	<43	<43	<50	<50	<50
TPH-D	--	--	--	84	56
EDB	0.14	0.017	<0.0028	<0.0027	<0.0044
Pb	--	--	36.8	6.3	1.9

MW-1	5/10/11	6/13/12	1/14/13	5/2/13	10/31/13	2/24/14	1/2/15
BEN	1,350	2,020	2.29	2.29	0.34	<0.24	0.25
NAP	800	730	3.3	3.3	5.4	<2.0	<2
TPH-G	78,200	--	416	416	401	134	165
TPH-D	4,800	--	--	--	--	850	450
EDB	<1.0	<0.0093	<0.091	<0.091	<0.0027	<0.0023	<0.0044
Pb	--	--	--	--	--	<10.0	0.74

MW-5	1/14/13	5/2/13	10/31/13	2/24/14	1/2/15
BEN	<0.062	<0.062	<0.24	<0.24	<0.15
NAP	0.13	<0.068	<2.0	<2.0	<2
TPH-G	<43	<43	<50	<50	<50
TPH-D	--	--	--	210	130
EDB	<0.0028	0.062	<0.0028	<0.0027	<0.0044
Pb	--	--	--	<10.0*	0.54

ABBREVIATIONS		MTCA Method A Cleanup Level (µg/L)
BEN	BENZENE	5
NAP	NAPHTHALENE	160
TPH-G	TOTAL PETROLEUM HYDROCARBONS GASOLINE-RANGE	800
TPH-D	TOTAL PETROLEUM HYDROCARBONS DIESEL-RANGE	500
EDB	ETHYLENE DIBROMIDE	0.01
Pb	LEAD	15

Legend:

- MW-1 ⊕ Monitoring Well Location
- Approximate Area
- T Transformer Location
- Catch Basin Location

MW-1	1/2/15
BEN	0.25
NAP	<2
TPH-G	165
TPH-D	450
EDB	<0.0044
Pb	0.74

Sampling Identification and (Depth in Feet) / Date Sampled

Concentration in µg/L

Analyte Sampled (-- = Not Analyzed)

<10.0* Lead Result from SB-5 (3/11)

Apparent Groundwater Flow Direction

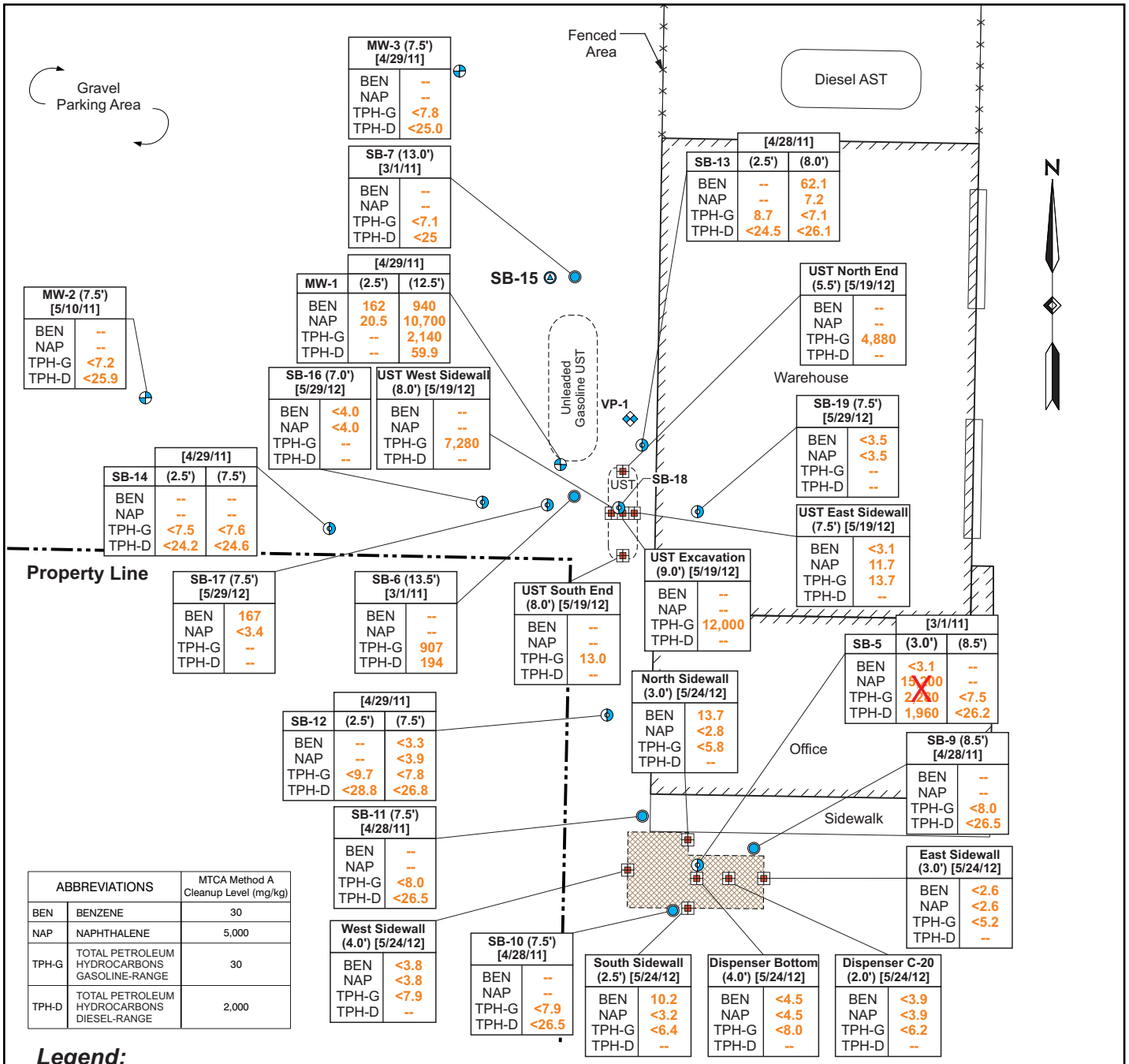
Notes: 1) Base map prepared from 2011 - Google Imagery and site reconnaissance by Ash Creek personnel.
2) Site feature locations and dimensions are approximate.

Monitoring Well Groundwater Concentrations

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1821-00	Figure
March 2015		3



ABBREVIATIONS		MTCA Method A Cleanup Level (mg/kg)
BEN	BENZENE	30
NAP	NAPHTHALENE	5,000
TPH-G	TOTAL PETROLEUM HYDROCARBONS GASOLINE-RANGE	30
TPH-D	TOTAL PETROLEUM HYDROCARBONS DIESEL-RANGE	2,000

Legend:

- Unleaded Gasoline Dispenser Excavation
- MW-1 — Monitoring Well Location
- SB-15 — Groundwater Exploration
- East Sidewall — Soil Grab Sample Location
- SB-12 — Soil and Groundwater Exploration
- SB-1 — Soil Boring Location
- T — Transformer Location
- VP-1 — Vapor Point Location

MW-2 (7.5') [5/10/11]
BEN --
NAP --
TPH-G <7.2
TPH-D <25.9

Sampling Identification and (Depth in Feet)
[Date Sampled]
Concentration in µg/kg
Analyte Sampled
(-- = Not Analyzed)

X = Sample Location Removed by Excavation

Notes: 1) Base map prepared from 2011 - Google Imagery and site reconnaissance by Ash Creek personnel.
2) Site feature locations and dimensions are approximate.

Soil Concentrations

Tarr, LLC Vancouver Cardlock
7208 NE St. Johns Road
Vancouver, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number 1821-00

April 2014

Figure 4

Appendix A

Analytical Laboratory Reports

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

January 23, 2013

John Foxwell
Ash Creek Associates
3015 SW First Ave
Portland, OR 97201

RE: Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on January 15, 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.

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

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

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
North Dakota Certification #: R-036A
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

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

SAMPLE SUMMARY

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10217665001	**MW-1**	Water	01/14/13 12:00	01/15/13 09:55
10217665002	**MW-4**	Water	01/14/13 12:30	01/15/13 09:55
10217665003	**MW-5**	Water	01/14/13 13:00	01/15/13 09:55

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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10217665001	**MW-1**	NWTPH-Gx/8021	MJH	2	PASI-M
		EPA 8260	EB2	75	PASI-M
10217665002	**MW-4**	NWTPH-Gx/8021	MJH	2	PASI-M
		EPA 8260	EB2	75	PASI-M
10217665003	**MW-5**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	MJH	2	PASI-M
		EPA 8260	EB2	75	PASI-M

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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Ash Creek Associates OR
Date: January 23, 2013

General Information:
1 sample was analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Method: **NWTPH-Gx/8021**
Description: NWTPH-Gx/8021BGx GCV
Client: Ash Creek Associates OR
Date: January 23, 2013

General Information:
3 samples were analyzed for NWTPH-Gx/8021. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Method: **EPA 8260**
Description: 8260 VOC
Client: Ash Creek Associates OR
Date: January 23, 2013

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- MW-1 (Lab ID: 10217665001)
- MW-4 (Lab ID: 10217665002)
- MW-5 (Lab ID: 10217665003)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/22671

B: Analyte was detected in the associated method blank.
- MW-1 (Lab ID: 10217665001)
  - Naphthalene
- MW-4 (Lab ID: 10217665002)
  - Naphthalene
- MW-5 (Lab ID: 10217665003)
  - Naphthalene

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

PROJECT NARRATIVE

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Method: **EPA 8260**
Description: 8260 VOC
Client: Ash Creek Associates OR
Date: January 23, 2013

This data package has been reviewed for quality and completeness and is approved for release.

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-1 **Lab ID: 10217665001** Collected: 01/14/13 12:00 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx/8021BGx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**416**	ug/L	100	43.0	1		01/17/13 19:23		
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	75-125		1		01/17/13 19:23	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<12.5**	ug/L	25.0	12.5	1		01/16/13 13:16	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		01/16/13 13:16	107-05-1	
Benzene	**0.29J**	ug/L	1.0	0.062	1		01/16/13 13:16	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		01/16/13 13:16	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		01/16/13 13:16	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:16	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		01/16/13 13:16	75-25-2	
Bromomethane	**<0.36**	ug/L	4.0	0.36	1		01/16/13 13:16	74-83-9	
2-Butanone (MEK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:16	78-93-3	
n-Butylbenzene	**0.82J**	ug/L	1.0	0.15	1		01/16/13 13:16	104-51-8	
sec-Butylbenzene	**0.54J**	ug/L	1.0	0.10	1		01/16/13 13:16	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:16	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		01/16/13 13:16	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/16/13 13:16	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:16	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		01/16/13 13:16	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		01/16/13 13:16	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		01/16/13 13:16	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		01/16/13 13:16	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		01/16/13 13:16	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		01/16/13 13:16	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:16	124-48-1	
1,2-Dibromoethane (EDB)	**<0.091**	ug/L	1.0	0.091	1		01/16/13 13:16	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		01/16/13 13:16	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		01/16/13 13:16	95-50-1	
1,3-Dichlorobenzene	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:16	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		01/16/13 13:16	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/16/13 13:16	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:16	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		01/16/13 13:16	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		01/16/13 13:16	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		01/16/13 13:16	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		01/16/13 13:16	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:16	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		01/16/13 13:16	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		01/16/13 13:16	142-28-9	
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		01/16/13 13:16	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		01/16/13 13:16	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		01/16/13 13:16	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		01/16/13 13:16	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:16	60-29-7	

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-1 **Lab ID: 10217665001** Collected: 01/14/13 12:00 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Ethylbenzene	**10.7**	ug/L	1.0	0.081	1		01/16/13 13:16	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		01/16/13 13:16	87-68-3	
2-Hexanone	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:16	591-78-6	
Isopropylbenzene (Cumene)	**2.1**	ug/L	1.0	0.076	1		01/16/13 13:16	98-82-8	
p-Isopropyltoluene	**0.39J**	ug/L	1.0	0.086	1		01/16/13 13:16	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:16	108-10-1	
Methyl-tert-butyl ether	**<0.088**	ug/L	1.0	0.088	1		01/16/13 13:16	1634-04-4	
Naphthalene	**3.3J**	ug/L	4.0	0.068	1		01/16/13 13:16	91-20-3	B
n-Propylbenzene	**6.9**	ug/L	1.0	0.078	1		01/16/13 13:16	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		01/16/13 13:16	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		01/16/13 13:16	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		01/16/13 13:16	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:16	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		01/16/13 13:16	109-99-9	
Toluene	**0.25J**	ug/L	1.0	0.077	1		01/16/13 13:16	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:16	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		01/16/13 13:16	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		01/16/13 13:16	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		01/16/13 13:16	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		01/16/13 13:16	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:16	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		01/16/13 13:16	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		01/16/13 13:16	76-13-1	
1,2,4-Trimethylbenzene	**37.2**	ug/L	1.0	0.071	1		01/16/13 13:16	95-63-6	
1,3,5-Trimethylbenzene	**11.1**	ug/L	1.0	0.087	1		01/16/13 13:16	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		01/16/13 13:16	75-01-4	
Xylene (Total)	**25.0**	ug/L	3.0	0.22	1		01/16/13 13:16	1330-20-7	
m&p-Xylene	**20.9**	ug/L	2.0	0.11	1		01/16/13 13:16	179601-23-1	
o-Xylene	**4.1**	ug/L	1.0	0.10	1		01/16/13 13:16	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	75-125		1		01/16/13 13:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	75-125		1		01/16/13 13:16	17060-07-0	
Toluene-d8 (S)	99	%	75-125		1		01/16/13 13:16	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125		1		01/16/13 13:16	460-00-4	

Sample: MW-4 **Lab ID: 10217665002** Collected: 01/14/13 12:30 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx/8021BGx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<43.0**	ug/L	100	43.0	1		01/17/13 17:07		
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	75-125		1		01/17/13 17:07	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-4 **Lab ID: 10217665002** Collected: 01/14/13 12:30 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<12.5**	ug/L	25.0	12.5	1		01/16/13 13:30	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		01/16/13 13:30	107-05-1	
Benzene	**<0.062**	ug/L	1.0	0.062	1		01/16/13 13:30	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		01/16/13 13:30	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		01/16/13 13:30	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:30	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		01/16/13 13:30	75-25-2	
Bromomethane	**<0.36**	ug/L	4.0	0.36	1		01/16/13 13:30	74-83-9	
2-Butanone (MEK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:30	78-93-3	
n-Butylbenzene	**<0.15**	ug/L	1.0	0.15	1		01/16/13 13:30	104-51-8	
sec-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:30	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:30	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		01/16/13 13:30	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/16/13 13:30	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:30	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		01/16/13 13:30	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		01/16/13 13:30	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		01/16/13 13:30	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		01/16/13 13:30	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		01/16/13 13:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		01/16/13 13:30	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:30	124-48-1	
1,2-Dibromoethane (EDB)	**0.14J**	ug/L	1.0	0.091	1		01/16/13 13:30	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		01/16/13 13:30	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		01/16/13 13:30	95-50-1	
1,3-Dichlorobenzene	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:30	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		01/16/13 13:30	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/16/13 13:30	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:30	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		01/16/13 13:30	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		01/16/13 13:30	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		01/16/13 13:30	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		01/16/13 13:30	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 13:30	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		01/16/13 13:30	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		01/16/13 13:30	142-28-9	
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		01/16/13 13:30	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		01/16/13 13:30	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		01/16/13 13:30	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		01/16/13 13:30	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:30	60-29-7	
Ethylbenzene	**<0.081**	ug/L	1.0	0.081	1		01/16/13 13:30	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		01/16/13 13:30	87-68-3	
2-Hexanone	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:30	591-78-6	
Isopropylbenzene (Cumene)	**<0.076**	ug/L	1.0	0.076	1		01/16/13 13:30	98-82-8	
p-Isopropyltoluene	**<0.086**	ug/L	1.0	0.086	1		01/16/13 13:30	99-87-6	

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-4 **Lab ID: 10217665002** Collected: 01/14/13 12:30 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 13:30	108-10-1	
Methyl-tert-butyl ether	**<0.088**	ug/L	1.0	0.088	1		01/16/13 13:30	1634-04-4	
Naphthalene	**0.24J**	ug/L	4.0	0.068	1		01/16/13 13:30	91-20-3	B
n-Propylbenzene	**<0.078**	ug/L	1.0	0.078	1		01/16/13 13:30	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		01/16/13 13:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		01/16/13 13:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		01/16/13 13:30	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:30	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		01/16/13 13:30	109-99-9	
Toluene	**<0.077**	ug/L	1.0	0.077	1		01/16/13 13:30	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:30	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		01/16/13 13:30	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		01/16/13 13:30	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		01/16/13 13:30	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		01/16/13 13:30	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		01/16/13 13:30	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		01/16/13 13:30	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		01/16/13 13:30	76-13-1	
1,2,4-Trimethylbenzene	**0.12J**	ug/L	1.0	0.071	1		01/16/13 13:30	95-63-6	
1,3,5-Trimethylbenzene	**<0.087**	ug/L	1.0	0.087	1		01/16/13 13:30	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		01/16/13 13:30	75-01-4	
Xylene (Total)	**<0.22**	ug/L	3.0	0.22	1		01/16/13 13:30	1330-20-7	
m&p-Xylene	**<0.11**	ug/L	2.0	0.11	1		01/16/13 13:30	179601-23-1	
o-Xylene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 13:30	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%	75-125		1		01/16/13 13:30	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	75-125		1		01/16/13 13:30	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		01/16/13 13:30	2037-26-5	
4-Bromofluorobenzene (S)	99	%	75-125		1		01/16/13 13:30	460-00-4	

Sample: MW-5 **Lab ID: 10217665003** Collected: 01/14/13 13:00 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0028**	ug/L	0.010	0.0028	1	01/17/13 16:17	01/22/13 21:15	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1	01/17/13 16:17	01/22/13 21:15	460-00-4	
NWTPH-Gx/8021BGx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<43.0**	ug/L	100	43.0	1		01/17/13 18:44		
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	75-125		1		01/17/13 18:44	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-5 **Lab ID: 10217665003** Collected: 01/14/13 13:00 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<12.5**	ug/L	25.0	12.5	1		01/16/13 12:03	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		01/16/13 12:03	107-05-1	
Benzene	**<0.062**	ug/L	1.0	0.062	1		01/16/13 12:03	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		01/16/13 12:03	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		01/16/13 12:03	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 12:03	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		01/16/13 12:03	75-25-2	
Bromomethane	**<0.36**	ug/L	4.0	0.36	1		01/16/13 12:03	74-83-9	
2-Butanone (MEK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 12:03	78-93-3	
n-Butylbenzene	**<0.15**	ug/L	1.0	0.15	1		01/16/13 12:03	104-51-8	
sec-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 12:03	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 12:03	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		01/16/13 12:03	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/16/13 12:03	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 12:03	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		01/16/13 12:03	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		01/16/13 12:03	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		01/16/13 12:03	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		01/16/13 12:03	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		01/16/13 12:03	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		01/16/13 12:03	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		01/16/13 12:03	124-48-1	
1,2-Dibromoethane (EDB)	**<0.091**	ug/L	1.0	0.091	1		01/16/13 12:03	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		01/16/13 12:03	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		01/16/13 12:03	95-50-1	
1,3-Dichlorobenzene	**<0.11**	ug/L	1.0	0.11	1		01/16/13 12:03	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		01/16/13 12:03	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/16/13 12:03	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 12:03	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		01/16/13 12:03	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		01/16/13 12:03	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		01/16/13 12:03	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		01/16/13 12:03	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		01/16/13 12:03	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		01/16/13 12:03	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		01/16/13 12:03	142-28-9	
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		01/16/13 12:03	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		01/16/13 12:03	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		01/16/13 12:03	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		01/16/13 12:03	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 12:03	60-29-7	
Ethylbenzene	**<0.081**	ug/L	1.0	0.081	1		01/16/13 12:03	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		01/16/13 12:03	87-68-3	
2-Hexanone	**<2.0**	ug/L	4.0	2.0	1		01/16/13 12:03	591-78-6	
Isopropylbenzene (Cumene)	**<0.076**	ug/L	1.0	0.076	1		01/16/13 12:03	98-82-8	
p-Isopropyltoluene	**<0.086**	ug/L	1.0	0.086	1		01/16/13 12:03	99-87-6	

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(612)607-1700

ANALYTICAL RESULTS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Sample: MW-5 **Lab ID: 10217665003** Collected: 01/14/13 13:00 Received: 01/15/13 09:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/16/13 12:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.0**	ug/L	4.0	2.0	1		01/16/13 12:03	108-10-1	
Methyl-tert-butyl ether	**4.2**	ug/L	1.0	0.088	1		01/16/13 12:03	1634-04-4	
Naphthalene	**0.13J**	ug/L	4.0	0.068	1		01/16/13 12:03	91-20-3	B
n-Propylbenzene	**<0.078**	ug/L	1.0	0.078	1		01/16/13 12:03	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		01/16/13 12:03	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		01/16/13 12:03	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		01/16/13 12:03	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 12:03	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		01/16/13 12:03	109-99-9	
Toluene	**<0.077**	ug/L	1.0	0.077	1		01/16/13 12:03	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		01/16/13 12:03	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		01/16/13 12:03	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		01/16/13 12:03	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		01/16/13 12:03	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		01/16/13 12:03	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		01/16/13 12:03	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		01/16/13 12:03	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		01/16/13 12:03	76-13-1	
1,2,4-Trimethylbenzene	**<0.071**	ug/L	1.0	0.071	1		01/16/13 12:03	95-63-6	
1,3,5-Trimethylbenzene	**<0.087**	ug/L	1.0	0.087	1		01/16/13 12:03	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		01/16/13 12:03	75-01-4	
Xylene (Total)	**<0.22**	ug/L	3.0	0.22	1		01/16/13 12:03	1330-20-7	
m&p-Xylene	**<0.11**	ug/L	2.0	0.11	1		01/16/13 12:03	179601-23-1	
o-Xylene	**<0.10**	ug/L	1.0	0.10	1		01/16/13 12:03	95-47-6	
Surrogates									
Dibromofluoromethane (S)	100	%	75-125		1		01/16/13 12:03	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	75-125		1		01/16/13 12:03	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		01/16/13 12:03	2037-26-5	
4-Bromofluorobenzene (S)	100	%	75-125		1		01/16/13 12:03	460-00-4	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

QC Batch: GCV/10298 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10217665001, 10217665002, 10217665003

METHOD BLANK: 1365699 Matrix: Water
Associated Lab Samples: 10217665001, 10217665002, 10217665003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<43.0	100	01/17/13 14:12	
a,a,a-Trifluorotoluene (S)	%	91	75-125	01/17/13 14:12	

LABORATORY CONTROL SAMPLE & LCSD: 1365700 1365701

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	903	839	90	84	75-126	7	20	
a,a,a-Trifluorotoluene (S)	%				104	95	75-125			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1365702 1365703

Parameter	Units	10217523005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH as Gas	ug/L	729	1000	1000	1680	1650	95	92	75-137	2	30	
a,a,a-Trifluorotoluene (S)	%						99	106	75-125			

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

QC Batch: MSV/22671 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10217665001, 10217665002, 10217665003

METHOD BLANK: 1365064 Matrix: Water
Associated Lab Samples: 10217665001, 10217665002, 10217665003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	01/16/13 11:19	
1,1,1-Trichloroethane	ug/L	<0.19	1.0	01/16/13 11:19	
1,1,2,2-Tetrachloroethane	ug/L	<0.097	1.0	01/16/13 11:19	
1,1,2-Trichloroethane	ug/L	<0.15	1.0	01/16/13 11:19	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.18	1.0	01/16/13 11:19	
1,1-Dichloroethane	ug/L	<0.11	1.0	01/16/13 11:19	
1,1-Dichloroethene	ug/L	<0.19	1.0	01/16/13 11:19	
1,1-Dichloropropene	ug/L	<0.35	1.0	01/16/13 11:19	
1,2,3-Trichlorobenzene	ug/L	0.43J	1.0	01/16/13 11:19	
1,2,3-Trichloropropane	ug/L	<0.33	4.0	01/16/13 11:19	
1,2,4-Trichlorobenzene	ug/L	0.34J	1.0	01/16/13 11:19	
1,2,4-Trimethylbenzene	ug/L	<0.071	1.0	01/16/13 11:19	
1,2-Dibromo-3-chloropropane	ug/L	<0.62	4.0	01/16/13 11:19	
1,2-Dibromoethane (EDB)	ug/L	<0.091	1.0	01/16/13 11:19	
1,2-Dichlorobenzene	ug/L	<0.36	1.0	01/16/13 11:19	
1,2-Dichloroethane	ug/L	<0.37	1.0	01/16/13 11:19	
1,2-Dichloropropane	ug/L	<0.27	4.0	01/16/13 11:19	
1,3,5-Trimethylbenzene	ug/L	<0.087	1.0	01/16/13 11:19	
1,3-Dichlorobenzene	ug/L	<0.11	1.0	01/16/13 11:19	
1,3-Dichloropropane	ug/L	<0.081	1.0	01/16/13 11:19	
1,4-Dichlorobenzene	ug/L	<0.064	1.0	01/16/13 11:19	
2,2-Dichloropropane	ug/L	<0.15	4.0	01/16/13 11:19	
2-Butanone (MEK)	ug/L	<2.0	4.0	01/16/13 11:19	
2-Chlorotoluene	ug/L	<0.50	1.0	01/16/13 11:19	
2-Hexanone	ug/L	<2.0	4.0	01/16/13 11:19	
4-Chlorotoluene	ug/L	<0.068	1.0	01/16/13 11:19	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.0	4.0	01/16/13 11:19	
Acetone	ug/L	<12.5	25.0	01/16/13 11:19	
Allyl chloride	ug/L	<1.8	4.0	01/16/13 11:19	
Benzene	ug/L	<0.062	1.0	01/16/13 11:19	
Bromobenzene	ug/L	<0.086	1.0	01/16/13 11:19	
Bromochloromethane	ug/L	<0.32	1.0	01/16/13 11:19	
Bromodichloromethane	ug/L	<0.11	1.0	01/16/13 11:19	
Bromoform	ug/L	<0.068	4.0	01/16/13 11:19	
Bromomethane	ug/L	<0.36	4.0	01/16/13 11:19	
Carbon disulfide	ug/L	<0.50	1.0	01/16/13 11:19	
Carbon tetrachloride	ug/L	<0.16	1.0	01/16/13 11:19	
Chlorobenzene	ug/L	<0.10	1.0	01/16/13 11:19	
Chloroethane	ug/L	<0.22	1.0	01/16/13 11:19	
Chloroform	ug/L	<0.14	1.0	01/16/13 11:19	
Chloromethane	ug/L	<0.41	4.0	01/16/13 11:19	
cis-1,2-Dichloroethene	ug/L	<0.085	1.0	01/16/13 11:19	
cis-1,3-Dichloropropene	ug/L	<0.090	4.0	01/16/13 11:19	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

METHOD BLANK: 1365064 Matrix: Water

Associated Lab Samples: 10217665001, 10217665002, 10217665003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.10	1.0	01/16/13 11:19	
Dibromomethane	ug/L	<0.21	4.0	01/16/13 11:19	
Dichlorodifluoromethane	ug/L	<0.20	1.0	01/16/13 11:19	
Dichlorofluoromethane	ug/L	<0.11	1.0	01/16/13 11:19	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	01/16/13 11:19	
Ethylbenzene	ug/L	<0.081	1.0	01/16/13 11:19	
Hexachloro-1,3-butadiene	ug/L	<0.19	5.0	01/16/13 11:19	
Isopropylbenzene (Cumene)	ug/L	<0.076	1.0	01/16/13 11:19	
m&p-Xylene	ug/L	<0.11	2.0	01/16/13 11:19	
Methyl-tert-butyl ether	ug/L	<0.088	1.0	01/16/13 11:19	
Methylene Chloride	ug/L	<2.0	4.0	01/16/13 11:19	
n-Butylbenzene	ug/L	<0.15	1.0	01/16/13 11:19	
n-Propylbenzene	ug/L	<0.078	1.0	01/16/13 11:19	
Naphthalene	ug/L	0.59J	4.0	01/16/13 11:19	
o-Xylene	ug/L	<0.10	1.0	01/16/13 11:19	
p-Isopropyltoluene	ug/L	<0.086	1.0	01/16/13 11:19	
sec-Butylbenzene	ug/L	<0.10	1.0	01/16/13 11:19	
Styrene	ug/L	<0.060	1.0	01/16/13 11:19	
tert-Butylbenzene	ug/L	<0.10	1.0	01/16/13 11:19	
Tetrachloroethene	ug/L	<0.13	1.0	01/16/13 11:19	
Tetrahydrofuran	ug/L	<0.97	10.0	01/16/13 11:19	
Toluene	ug/L	<0.077	1.0	01/16/13 11:19	
trans-1,2-Dichloroethene	ug/L	<0.15	1.0	01/16/13 11:19	
trans-1,3-Dichloropropene	ug/L	<0.37	4.0	01/16/13 11:19	
Trichloroethene	ug/L	<0.083	1.0	01/16/13 11:19	
Trichlorofluoromethane	ug/L	<0.13	1.0	01/16/13 11:19	
Vinyl chloride	ug/L	<0.16	0.40	01/16/13 11:19	
Xylene (Total)	ug/L	<0.22	3.0	01/16/13 11:19	
1,2-Dichloroethane-d4 (S)	%	98	75-125	01/16/13 11:19	
4-Bromofluorobenzene (S)	%	100	75-125	01/16/13 11:19	
Dibromofluoromethane (S)	%	100	75-125	01/16/13 11:19	
Toluene-d8 (S)	%	97	75-125	01/16/13 11:19	

LABORATORY CONTROL SAMPLE: 1365065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	44.5	89	75-125	
1,1,1-Trichloroethane	ug/L	50	44.2	88	75-126	
1,1,2,2-Tetrachloroethane	ug/L	50	41.3	83	75-125	
1,1,2-Trichloroethane	ug/L	50	43.6	87	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	50	43.9	88	51-139	
1,1-Dichloroethane	ug/L	50	45.1	90	75-125	
1,1-Dichloroethene	ug/L	50	43.9	88	71-126	
1,1-Dichloropropene	ug/L	50	44.1	88	74-125	
1,2,3-Trichlorobenzene	ug/L	50	42.7	85	75-125	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

LABORATORY CONTROL SAMPLE: 1365065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/L	50	41.6	83	75-125	
1,2,4-Trichlorobenzene	ug/L	50	42.9	86	75-125	
1,2,4-Trimethylbenzene	ug/L	50	42.9	86	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	42.1	84	73-125	
1,2-Dibromoethane (EDB)	ug/L	50	44.3	89	75-125	
1,2-Dichlorobenzene	ug/L	50	41.9	84	75-125	
1,2-Dichloroethane	ug/L	50	44.5	89	74-125	
1,2-Dichloropropane	ug/L	50	44.2	88	75-125	
1,3,5-Trimethylbenzene	ug/L	50	41.4	83	75-125	
1,3-Dichlorobenzene	ug/L	50	41.1	82	75-125	
1,3-Dichloropropane	ug/L	50	44.0	88	75-125	
1,4-Dichlorobenzene	ug/L	50	43.1	86	75-125	
2,2-Dichloropropane	ug/L	50	43.7	87	67-132	
2-Butanone (MEK)	ug/L	50	42.1	84	68-126	
2-Chlorotoluene	ug/L	50	39.8	80	74-125	
2-Hexanone	ug/L	50	38.5	77	70-125	
4-Chlorotoluene	ug/L	50	41.3	83	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	50	42.5	85	72-125	
Acetone	ug/L	125	112	90	69-132	
Allyl chloride	ug/L	50	46.5	93	74-125	
Benzene	ug/L	50	44.1	88	75-125	
Bromobenzene	ug/L	50	41.8	84	75-125	
Bromochloromethane	ug/L	50	46.5	93	75-125	
Bromodichloromethane	ug/L	50	44.0	88	75-125	
Bromoform	ug/L	50	44.5	89	75-126	
Bromomethane	ug/L	50	52.6	105	30-150	
Carbon disulfide	ug/L	50	46.1	92	66-126	
Carbon tetrachloride	ug/L	50	44.5	89	74-127	
Chlorobenzene	ug/L	50	42.3	85	75-125	
Chloroethane	ug/L	50	43.9	88	68-132	
Chloroform	ug/L	50	44.5	89	75-125	
Chloromethane	ug/L	50	44.0	88	61-129	
cis-1,2-Dichloroethene	ug/L	50	45.1	90	75-125	
cis-1,3-Dichloropropene	ug/L	50	45.2	90	75-125	
Dibromochloromethane	ug/L	50	44.9	90	75-125	
Dibromomethane	ug/L	50	43.6	87	75-125	
Dichlorodifluoromethane	ug/L	50	39.6	79	49-137	
Dichlorofluoromethane	ug/L	50	43.3	87	66-133	
Diethyl ether (Ethyl ether)	ug/L	50	45.0	90	75-125	
Ethylbenzene	ug/L	50	40.6	81	75-125	
Hexachloro-1,3-butadiene	ug/L	25	24.1	96	69-127	
Isopropylbenzene (Cumene)	ug/L	50	43.8	88	75-125	
m&p-Xylene	ug/L	100	84.2	84	75-125	
Methyl-tert-butyl ether	ug/L	50	44.6	89	74-126	
Methylene Chloride	ug/L	50	43.6	87	75-125	
n-Butylbenzene	ug/L	50	43.4	87	72-126	
n-Propylbenzene	ug/L	50	42.6	85	73-125	
Naphthalene	ug/L	50	40.7	81	75-125	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

LABORATORY CONTROL SAMPLE: 1365065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	50	43.8	88	75-125	
p-Isopropyltoluene	ug/L	50	43.7	87	74-125	
sec-Butylbenzene	ug/L	50	42.4	85	73-125	
Styrene	ug/L	50	43.1	86	75-125	
tert-Butylbenzene	ug/L	50	43.3	87	73-125	
Tetrachloroethene	ug/L	50	43.1	86	75-125	
Tetrahydrofuran	ug/L	500	429	86	71-125	
Toluene	ug/L	50	41.5	83	75-125	
trans-1,2-Dichloroethene	ug/L	50	44.9	90	74-125	
trans-1,3-Dichloropropene	ug/L	50	44.7	89	75-125	
Trichloroethene	ug/L	50	43.9	88	75-125	
Trichlorofluoromethane	ug/L	50	44.4	89	69-129	
Vinyl chloride	ug/L	50	44.4	89	70-128	
Xylene (Total)	ug/L	150	128	85	75-125	
1,2-Dichloroethane-d4 (S)	%			98	75-125	
4-Bromofluorobenzene (S)	%			97	75-125	
Dibromofluoromethane (S)	%			100	75-125	
Toluene-d8 (S)	%			99	75-125	

MATRIX SPIKE SAMPLE: 1365066

Parameter	Units	10217665003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	50	47.8	96	75-125	
1,1,1-Trichloroethane	ug/L	<0.19	50	49.2	98	75-136	
1,1,2,2-Tetrachloroethane	ug/L	<0.097	50	43.7	87	66-131	
1,1,2-Trichloroethane	ug/L	<0.15	50	46.0	92	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.18	50	62.2	124	75-150	
1,1-Dichloroethane	ug/L	<0.11	50	49.5	99	75-131	
1,1-Dichloroethene	ug/L	<0.19	50	50.6	101	75-138	
1,1-Dichloropropene	ug/L	<0.35	50	50.7	101	75-136	
1,2,3-Trichlorobenzene	ug/L	<0.13	50	41.8	84	75-125	
1,2,3-Trichloropropane	ug/L	<0.33	50	43.8	88	71-126	
1,2,4-Trichlorobenzene	ug/L	<0.25	50	43.8	88	75-125	
1,2,4-Trimethylbenzene	ug/L	<0.071	50	47.3	95	70-126	
1,2-Dibromo-3-chloropropane	ug/L	<0.62	50	41.4	83	69-127	
1,2-Dibromoethane (EDB)	ug/L	<0.091	50	45.6	91	75-125	
1,2-Dichlorobenzene	ug/L	<0.36	50	45.5	91	75-125	
1,2-Dichloroethane	ug/L	<0.37	50	47.8	96	74-128	
1,2-Dichloropropane	ug/L	<0.27	50	47.5	95	75-125	
1,3,5-Trimethylbenzene	ug/L	<0.087	50	45.7	91	72-126	
1,3-Dichlorobenzene	ug/L	<0.11	50	45.0	90	75-125	
1,3-Dichloropropane	ug/L	<0.081	50	46.0	92	75-125	
1,4-Dichlorobenzene	ug/L	<0.064	50	46.6	93	75-125	
2,2-Dichloropropane	ug/L	<0.15	50	49.6	99	71-143	
2-Butanone (MEK)	ug/L	<2.0	50	41.8	84	64-125	
2-Chlorotoluene	ug/L	<0.50	50	44.6	89	74-125	
2-Hexanone	ug/L	<2.0	50	36.9	74	67-125	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

MATRIX SPIKE SAMPLE: 1365066

Parameter	Units	10217665003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	<0.068	50	46.7	93	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.0	50	42.5	85	69-125	
Acetone	ug/L	<12.5	125	120	96	57-135	
Allyl chloride	ug/L	<1.8	50	51.8	104	73-134	
Benzene	ug/L	<0.062	50	48.2	96	70-135	
Bromobenzene	ug/L	<0.086	50	46.0	92	75-125	
Bromochloromethane	ug/L	<0.32	50	49.3	99	75-125	
Bromodichloromethane	ug/L	<0.11	50	47.3	95	75-125	
Bromoform	ug/L	<0.068	50	46.2	92	68-133	
Bromomethane	ug/L	<0.36	50	56.5	113	56-150	
Carbon disulfide	ug/L	<0.50	50	51.8	103	66-135	
Carbon tetrachloride	ug/L	<0.16	50	51.5	103	75-137	
Chlorobenzene	ug/L	<0.10	50	45.8	92	75-125	
Chloroethane	ug/L	<0.22	50	49.0	98	64-150	
Chloroform	ug/L	<0.14	50	47.6	95	75-127	
Chloromethane	ug/L	<0.41	50	48.3	97	65-140	
cis-1,2-Dichloroethene	ug/L	<0.085	50	48.5	97	75-129	
cis-1,3-Dichloropropene	ug/L	<0.090	50	48.7	97	75-125	
Dibromochloromethane	ug/L	<0.10	50	47.0	94	75-125	
Dibromomethane	ug/L	<0.21	50	47.0	94	75-125	
Dichlorodifluoromethane	ug/L	<0.20	50	56.9	114	70-150	
Dichlorofluoromethane	ug/L	<0.11	50	48.7	97	69-142	
Diethyl ether (Ethyl ether)	ug/L	<2.0	50	47.0	94	75-125	
Ethylbenzene	ug/L	<0.081	50	45.2	90	75-125	
Hexachloro-1,3-butadiene	ug/L	<0.19	25	23.3	93	75-135	
Isopropylbenzene (Cumene)	ug/L	<0.076	50	48.5	97	75-125	
m&p-Xylene	ug/L	<0.11	100	93.3	93	75-125	
Methyl-tert-butyl ether	ug/L	4.2	50	50.5	93	70-132	
Methylene Chloride	ug/L	<2.0	50	46.8	94	73-125	
n-Butylbenzene	ug/L	<0.15	50	47.5	95	75-130	
n-Propylbenzene	ug/L	<0.078	50	48.2	96	75-128	
Naphthalene	ug/L	0.13J	50	40.0	80	73-126	
o-Xylene	ug/L	<0.10	50	47.5	95	75-125	
p-Isopropyltoluene	ug/L	<0.086	50	47.8	96	75-125	
sec-Butylbenzene	ug/L	<0.10	50	47.4	95	75-126	
Styrene	ug/L	<0.060	50	47.0	94	52-137	
tert-Butylbenzene	ug/L	<0.10	50	48.2	96	75-125	
Tetrachloroethene	ug/L	<0.13	50	48.8	98	75-130	
Tetrahydrofuran	ug/L	<0.97	500	425	85	69-125	
Toluene	ug/L	<0.077	50	45.9	92	75-125	
trans-1,2-Dichloroethene	ug/L	<0.15	50	49.9	100	75-135	
trans-1,3-Dichloropropene	ug/L	<0.37	50	47.7	95	75-125	
Trichloroethene	ug/L	<0.083	50	48.7	97	75-129	
Trichlorofluoromethane	ug/L	<0.13	50	57.0	114	75-150	
Vinyl chloride	ug/L	<0.16	50	51.9	104	75-147	
Xylene (Total)	ug/L	<0.22	150	141	94	75-125	
1,2-Dichloroethane-d4 (S)	%				98	75-125	
4-Bromofluorobenzene (S)	%				99	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

MATRIX SPIKE SAMPLE: 1365066

Parameter	Units	10217665003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dibromofluoromethane (S)	%				99	75-125	
Toluene-d8 (S)	%				99	75-125	

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QUALITY CONTROL DATA

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

QC Batch: OEXT/20734 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10217665003

METHOD BLANK: 1366042 Matrix: Water
Associated Lab Samples: 10217665003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0028	0.010	01/22/13 20:49	
4-Bromofluorobenzene (S)	%	121	70-130	01/22/13 20:49	

LABORATORY CONTROL SAMPLE & LCSD: 1366043 1366044

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.093	0.093	86	86	60-140	0	20	
4-Bromofluorobenzene (S)	%				110	111	70-130			

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
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QUALIFIERS

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tarr Vancouver 1821-00
Pace Project No.: 10217665

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10217665003	**MW-5**	EPA 8011	OEXT/20734	EPA 8011	GCSV/10765
10217665001	**MW-1**	NWTPH-Gx/8021	GCV/10298		
10217665002	**MW-4**	NWTPH-Gx/8021	GCV/10298		
10217665003	**MW-5**	NWTPH-Gx/8021	GCV/10298		
10217665001	**MW-1**	EPA 8260	MSV/22671		
10217665002	**MW-4**	EPA 8260	MSV/22671		
10217665003	**MW-5**	EPA 8260	MSV/22671		

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1128

CHAIN-OF-CUSTODY / Analytical Request Document

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

10217665

Page: 1 of 1

1491830

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Ash Creek Associates	Report To: John Foxwell	Attention:
Address: 3015 SW first AVE	Copy To: —	Company Name:
Portland, OR 97201	—	Address:
Email To: jfoxwell@ashcreekassociates.com	Purchase Order No.:	Pace Quote Reference:
Phone: (503)924-4704 Fax:	Project Name: Tarr Vancouver	Pace Project Manager:
Requested Due Date/TAT: Regular TAT	Project Number: 1821-00	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	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	VOCs (8260)	NWTPH-Gx	EDB by 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	Y	Y	Y		
1	MW-1	WT	G	~~01/14/13~~	~~1 MT~~	01/14/13	1200	30	6				X						X	X		N	001
2	MW-4	WT	G			01/14/13	1230	30	6				X						X	X		N	002
3	MW-5	WT	G			01/14/13	1300	30	9				X						X	X	X	N	003
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

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)
	Matt Thoenes Ash Creek Associates	01/14/13	1430	JN / Pace	1/15/13	955	1.3	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Thoenes

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 01/14/13

*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: 13Nov2012 Page 1 of 1
	Document No.: **F-MN-L-213-rev.05**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Ash Creek Associates **Project #:** WO#: 10217665

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

Tracking Number: 8768 4855 2210

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

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

Cooler Temp Read (°C): 1.2 **Cooler Temp Corrected (°C):** 1.3 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Date and Initials of Person Examining Contents:** 1/15/13 TN

				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
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	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☒ Yes	☐ No		Initial when completed: TN 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):				

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: OMM **Date:** 1-15-13

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)

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

May 16, 2013

John Foxwell
Ash Creek Associates
3015 SW First Ave
Portland, OR 97201

RE: Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 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.

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: Tarr Vancouver-GWM
Pace Project No.: 10227466

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
North Dakota Certification #: R-036A
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: Tarr Vancouver-GWM
Pace Project No.: 10227466

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10227466001	**MW-1**	Water	05/02/13 10:45	05/03/13 09:37
10227466002	**MW-4**	Water	05/02/13 10:25	05/03/13 09:37
10227466003	**MW-5**	Water	05/02/13 09:55	05/03/13 09:37

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SAMPLE ANALYTE COUNT

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10227466001	**MW-1**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	DJT	2	PASI-M
		EPA 8260	SE	74	PASI-M
10227466002	**MW-4**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	DJT	2	PASI-M
		EPA 8260	SE	74	PASI-M
10227466003	**MW-5**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	DJT	2	PASI-M
		EPA 8260	SE	74	PASI-M

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PROJECT NARRATIVE

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Ash Creek Associates OR
Date: May 16, 2013

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Method: **NWTPH-Gx/8021**
Description: NWTPH-Gx GCV
Client: Ash Creek Associates OR
Date: May 16, 2013

General Information:
3 samples were analyzed for NWTPH-Gx/8021. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Method: **EPA 8260**
Description: 8260 VOC
Client: Ash Creek Associates OR
Date: May 16, 2013

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MSV/23570

B: Analyte was detected in the associated method blank.
- BLANK for HBN 248994 [MSV/2357 (Lab ID: 1424503)
  - Bromomethane
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-1 **Lab ID: 10227466001** Collected: 05/02/13 10:45 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0097	0.0027	1	05/15/13 11:10	05/15/13 17:16	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1	05/15/13 11:10	05/15/13 17:16	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**230**	ug/L	100	43.0	1		05/09/13 15:01		
Surrogates									
a,a,a-Trifluorotoluene (S)	83	%	75-125		1		05/09/13 15:01	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		05/09/13 03:23	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		05/09/13 03:23	107-05-1	
Benzene	**0.078J**	ug/L	1.0	0.062	1		05/09/13 03:23	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		05/09/13 03:23	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		05/09/13 03:23	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:23	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		05/09/13 03:23	75-25-2	
Bromomethane	**1.4J**	ug/L	4.0	0.36	1		05/09/13 03:23	74-83-9	B
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:23	78-93-3	
n-Butylbenzene	**0.22J**	ug/L	1.0	0.15	1		05/09/13 03:23	104-51-8	
sec-Butylbenzene	**0.36J**	ug/L	1.0	0.10	1		05/09/13 03:23	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:23	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		05/09/13 03:23	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		05/09/13 03:23	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:23	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		05/09/13 03:23	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		05/09/13 03:23	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		05/09/13 03:23	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/09/13 03:23	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		05/09/13 03:23	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		05/09/13 03:23	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:23	124-48-1	
1,2-Dibromoethane (EDB)	**<0.091**	ug/L	1.0	0.091	1		05/09/13 03:23	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		05/09/13 03:23	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		05/09/13 03:23	95-50-1	
1,3-Dichlorobenzene	**0.35J**	ug/L	1.0	0.11	1		05/09/13 03:23	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		05/09/13 03:23	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		05/09/13 03:23	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:23	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		05/09/13 03:23	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		05/09/13 03:23	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		05/09/13 03:23	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		05/09/13 03:23	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:23	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		05/09/13 03:23	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		05/09/13 03:23	142-28-9	

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

ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-1 **Lab ID: 10227466001** Collected: 05/02/13 10:45 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		05/09/13 03:23	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		05/09/13 03:23	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		05/09/13 03:23	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		05/09/13 03:23	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		05/09/13 03:23	60-29-7	
Ethylbenzene	**3.9**	ug/L	1.0	0.081	1		05/09/13 03:23	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		05/09/13 03:23	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:23	591-78-6	
Isopropylbenzene (Cumene)	**1.2**	ug/L	1.0	0.076	1		05/09/13 03:23	98-82-8	
p-Isopropyltoluene	**0.12J**	ug/L	1.0	0.086	1		05/09/13 03:23	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		05/09/13 03:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:23	108-10-1	
Methyl-tert-butyl ether	**<0.088**	ug/L	1.0	0.088	1		05/09/13 03:23	1634-04-4	
Naphthalene	**1.6J**	ug/L	4.0	0.068	1		05/09/13 03:23	91-20-3	B
n-Propylbenzene	**3.5**	ug/L	1.0	0.078	1		05/09/13 03:23	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		05/09/13 03:23	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		05/09/13 03:23	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		05/09/13 03:23	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:23	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		05/09/13 03:23	109-99-9	
Toluene	**0.10J**	ug/L	1.0	0.077	1		05/09/13 03:23	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:23	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		05/09/13 03:23	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		05/09/13 03:23	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		05/09/13 03:23	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		05/09/13 03:23	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:23	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		05/09/13 03:23	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		05/09/13 03:23	76-13-1	
1,2,4-Trimethylbenzene	**7.4**	ug/L	1.0	0.071	1		05/09/13 03:23	95-63-6	
1,3,5-Trimethylbenzene	**2.1**	ug/L	1.0	0.087	1		05/09/13 03:23	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		05/09/13 03:23	75-01-4	
Xylene (Total)	**5.5**	ug/L	3.0	0.22	1		05/09/13 03:23	1330-20-7	
m&p-Xylene	**4.7**	ug/L	2.0	0.11	1		05/09/13 03:23	179601-23-1	
o-Xylene	**0.82J**	ug/L	1.0	0.10	1		05/09/13 03:23	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	104	%	75-125		1		05/09/13 03:23	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		05/09/13 03:23	2037-26-5	
4-Bromofluorobenzene (S)	100	%	75-125		1		05/09/13 03:23	460-00-4	

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ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-4 **Lab ID: 10227466002** Collected: 05/02/13 10:25 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.017**	ug/L	0.0097	0.0027	1	05/15/13 11:10	05/15/13 17:41	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1	05/15/13 11:10	05/15/13 17:41	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<43.0**	ug/L	100	43.0	1		05/09/13 14:21		
Surrogates									
a,a,a-Trifluorotoluene (S)	88	%	75-125		1		05/09/13 14:21	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		05/09/13 03:43	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		05/09/13 03:43	107-05-1	
Benzene	**<0.062**	ug/L	1.0	0.062	1		05/09/13 03:43	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		05/09/13 03:43	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		05/09/13 03:43	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:43	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		05/09/13 03:43	75-25-2	
Bromomethane	**0.75J**	ug/L	4.0	0.36	1		05/09/13 03:43	74-83-9	B
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:43	78-93-3	
n-Butylbenzene	**<0.15**	ug/L	1.0	0.15	1		05/09/13 03:43	104-51-8	
sec-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:43	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:43	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		05/09/13 03:43	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		05/09/13 03:43	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:43	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		05/09/13 03:43	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		05/09/13 03:43	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		05/09/13 03:43	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/09/13 03:43	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		05/09/13 03:43	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		05/09/13 03:43	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:43	124-48-1	
1,2-Dibromoethane (EDB)	**<0.091**	ug/L	1.0	0.091	1		05/09/13 03:43	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		05/09/13 03:43	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		05/09/13 03:43	95-50-1	
1,3-Dichlorobenzene	**0.27J**	ug/L	1.0	0.11	1		05/09/13 03:43	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		05/09/13 03:43	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		05/09/13 03:43	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:43	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		05/09/13 03:43	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		05/09/13 03:43	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		05/09/13 03:43	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		05/09/13 03:43	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 03:43	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		05/09/13 03:43	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		05/09/13 03:43	142-28-9	

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ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-4 **Lab ID: 10227466002** Collected: 05/02/13 10:25 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		05/09/13 03:43	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		05/09/13 03:43	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		05/09/13 03:43	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		05/09/13 03:43	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		05/09/13 03:43	60-29-7	
Ethylbenzene	**<0.081**	ug/L	1.0	0.081	1		05/09/13 03:43	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		05/09/13 03:43	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:43	591-78-6	
Isopropylbenzene (Cumene)	**<0.076**	ug/L	1.0	0.076	1		05/09/13 03:43	98-82-8	
p-Isopropyltoluene	**<0.086**	ug/L	1.0	0.086	1		05/09/13 03:43	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		05/09/13 03:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 03:43	108-10-1	
Methyl-tert-butyl ether	**<0.088**	ug/L	1.0	0.088	1		05/09/13 03:43	1634-04-4	
Naphthalene	**0.083J**	ug/L	4.0	0.068	1		05/09/13 03:43	91-20-3	B
n-Propylbenzene	**<0.078**	ug/L	1.0	0.078	1		05/09/13 03:43	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		05/09/13 03:43	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		05/09/13 03:43	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		05/09/13 03:43	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:43	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		05/09/13 03:43	109-99-9	
Toluene	**<0.077**	ug/L	1.0	0.077	1		05/09/13 03:43	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:43	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		05/09/13 03:43	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		05/09/13 03:43	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		05/09/13 03:43	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		05/09/13 03:43	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		05/09/13 03:43	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		05/09/13 03:43	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		05/09/13 03:43	76-13-1	
1,2,4-Trimethylbenzene	**<0.071**	ug/L	1.0	0.071	1		05/09/13 03:43	95-63-6	
1,3,5-Trimethylbenzene	**<0.087**	ug/L	1.0	0.087	1		05/09/13 03:43	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		05/09/13 03:43	75-01-4	
Xylene (Total)	**<0.22**	ug/L	3.0	0.22	1		05/09/13 03:43	1330-20-7	
m&p-Xylene	**<0.11**	ug/L	2.0	0.11	1		05/09/13 03:43	179601-23-1	
o-Xylene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 03:43	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%	75-125		1		05/09/13 03:43	17060-07-0	
Toluene-d8 (S)	102	%	75-125		1		05/09/13 03:43	2037-26-5	
4-Bromofluorobenzene (S)	100	%	75-125		1		05/09/13 03:43	460-00-4	

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ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-5 **Lab ID: 10227466003** Collected: 05/02/13 09:55 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.062**	ug/L	0.0099	0.0028	1	05/15/13 11:10	05/15/13 18:06	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1	05/15/13 11:10	05/15/13 18:06	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<43.0**	ug/L	100	43.0	1		05/09/13 14:41		
Surrogates									
a,a,a-Trifluorotoluene (S)	83	%	75-125		1		05/09/13 14:41	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		05/09/13 04:04	67-64-1	
Allyl chloride	**<1.8**	ug/L	4.0	1.8	1		05/09/13 04:04	107-05-1	
Benzene	**<0.062**	ug/L	1.0	0.062	1		05/09/13 04:04	71-43-2	
Bromobenzene	**<0.086**	ug/L	1.0	0.086	1		05/09/13 04:04	108-86-1	
Bromochloromethane	**<0.32**	ug/L	1.0	0.32	1		05/09/13 04:04	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 04:04	75-27-4	
Bromoform	**<0.068**	ug/L	4.0	0.068	1		05/09/13 04:04	75-25-2	
Bromomethane	**1.1J**	ug/L	4.0	0.36	1		05/09/13 04:04	74-83-9	B
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 04:04	78-93-3	
n-Butylbenzene	**<0.15**	ug/L	1.0	0.15	1		05/09/13 04:04	104-51-8	
sec-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 04:04	135-98-8	
tert-Butylbenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 04:04	98-06-6	
Carbon disulfide	**<0.50**	ug/L	1.0	0.50	1		05/09/13 04:04	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		05/09/13 04:04	56-23-5	
Chlorobenzene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 04:04	108-90-7	
Chloroethane	**<0.22**	ug/L	1.0	0.22	1		05/09/13 04:04	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		05/09/13 04:04	67-66-3	
Chloromethane	**<0.41**	ug/L	4.0	0.41	1		05/09/13 04:04	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		05/09/13 04:04	95-49-8	
4-Chlorotoluene	**<0.068**	ug/L	1.0	0.068	1		05/09/13 04:04	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.62**	ug/L	4.0	0.62	1		05/09/13 04:04	96-12-8	
Dibromochloromethane	**<0.10**	ug/L	1.0	0.10	1		05/09/13 04:04	124-48-1	
1,2-Dibromoethane (EDB)	**<0.091**	ug/L	1.0	0.091	1		05/09/13 04:04	106-93-4	
Dibromomethane	**<0.21**	ug/L	4.0	0.21	1		05/09/13 04:04	74-95-3	
1,2-Dichlorobenzene	**<0.36**	ug/L	1.0	0.36	1		05/09/13 04:04	95-50-1	
1,3-Dichlorobenzene	**0.27J**	ug/L	1.0	0.11	1		05/09/13 04:04	541-73-1	
1,4-Dichlorobenzene	**<0.064**	ug/L	1.0	0.064	1		05/09/13 04:04	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	1.0	0.20	1		05/09/13 04:04	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 04:04	75-34-3	
1,2-Dichloroethane	**<0.37**	ug/L	1.0	0.37	1		05/09/13 04:04	107-06-2	
1,1-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		05/09/13 04:04	75-35-4	
cis-1,2-Dichloroethene	**<0.085**	ug/L	1.0	0.085	1		05/09/13 04:04	156-59-2	
trans-1,2-Dichloroethene	**<0.15**	ug/L	1.0	0.15	1		05/09/13 04:04	156-60-5	
Dichlorofluoromethane	**<0.11**	ug/L	1.0	0.11	1		05/09/13 04:04	75-43-4	
1,2-Dichloropropane	**<0.27**	ug/L	4.0	0.27	1		05/09/13 04:04	78-87-5	
1,3-Dichloropropane	**<0.081**	ug/L	1.0	0.081	1		05/09/13 04:04	142-28-9	

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ANALYTICAL RESULTS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Sample: MW-5 **Lab ID: 10227466003** Collected: 05/02/13 09:55 Received: 05/03/13 09:37 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.15**	ug/L	4.0	0.15	1		05/09/13 04:04	594-20-7	
1,1-Dichloropropene	**<0.35**	ug/L	1.0	0.35	1		05/09/13 04:04	563-58-6	
cis-1,3-Dichloropropene	**<0.090**	ug/L	4.0	0.090	1		05/09/13 04:04	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/L	4.0	0.37	1		05/09/13 04:04	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		05/09/13 04:04	60-29-7	
Ethylbenzene	**<0.081**	ug/L	1.0	0.081	1		05/09/13 04:04	100-41-4	
Hexachloro-1,3-butadiene	**<0.19**	ug/L	5.0	0.19	1		05/09/13 04:04	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		05/09/13 04:04	591-78-6	
Isopropylbenzene (Cumene)	**<0.076**	ug/L	1.0	0.076	1		05/09/13 04:04	98-82-8	
p-Isopropyltoluene	**<0.086**	ug/L	1.0	0.086	1		05/09/13 04:04	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		05/09/13 04:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		05/09/13 04:04	108-10-1	
Methyl-tert-butyl ether	**1.9**	ug/L	1.0	0.088	1		05/09/13 04:04	1634-04-4	
Naphthalene	**<0.068**	ug/L	4.0	0.068	1		05/09/13 04:04	91-20-3	
n-Propylbenzene	**<0.078**	ug/L	1.0	0.078	1		05/09/13 04:04	103-65-1	
Styrene	**<0.060**	ug/L	1.0	0.060	1		05/09/13 04:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		05/09/13 04:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.097**	ug/L	1.0	0.097	1		05/09/13 04:04	79-34-5	
Tetrachloroethene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 04:04	127-18-4	
Tetrahydrofuran	**<0.97**	ug/L	10.0	0.97	1		05/09/13 04:04	109-99-9	
Toluene	**<0.077**	ug/L	1.0	0.077	1		05/09/13 04:04	108-88-3	
1,2,3-Trichlorobenzene	**<0.13**	ug/L	1.0	0.13	1		05/09/13 04:04	87-61-6	
1,2,4-Trichlorobenzene	**<0.25**	ug/L	1.0	0.25	1		05/09/13 04:04	120-82-1	
1,1,1-Trichloroethane	**<0.19**	ug/L	1.0	0.19	1		05/09/13 04:04	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		05/09/13 04:04	79-00-5	
Trichloroethene	**<0.083**	ug/L	1.0	0.083	1		05/09/13 04:04	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		05/09/13 04:04	75-69-4	
1,2,3-Trichloropropane	**<0.33**	ug/L	4.0	0.33	1		05/09/13 04:04	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.18**	ug/L	1.0	0.18	1		05/09/13 04:04	76-13-1	
1,2,4-Trimethylbenzene	**<0.071**	ug/L	1.0	0.071	1		05/09/13 04:04	95-63-6	
1,3,5-Trimethylbenzene	**<0.087**	ug/L	1.0	0.087	1		05/09/13 04:04	108-67-8	
Vinyl chloride	**<0.16**	ug/L	0.40	0.16	1		05/09/13 04:04	75-01-4	
Xylene (Total)	**<0.22**	ug/L	3.0	0.22	1		05/09/13 04:04	1330-20-7	
m&p-Xylene	**<0.11**	ug/L	2.0	0.11	1		05/09/13 04:04	179601-23-1	
o-Xylene	**<0.10**	ug/L	1.0	0.10	1		05/09/13 04:04	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	104	%	75-125		1		05/09/13 04:04	17060-07-0	
Toluene-d8 (S)	102	%	75-125		1		05/09/13 04:04	2037-26-5	
4-Bromofluorobenzene (S)	100	%	75-125		1		05/09/13 04:04	460-00-4	

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

QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

QC Batch: GCV/10704 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10227466001, 10227466002, 10227466003

METHOD BLANK: 1425321 Matrix: Water
Associated Lab Samples: 10227466001, 10227466002, 10227466003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<43.0	100	05/09/13 09:22	
a,a,a-Trifluorotoluene (S)	%	86	75-125	05/09/13 09:22	

LABORATORY CONTROL SAMPLE & LCSD: 1425322 1425323

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	919	915	92	92	75-126	.5	20	
a,a,a-Trifluorotoluene (S)	%				94	93	75-125			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1425324 1425325

Parameter	Units	10227423003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH as Gas	ug/L	340	1000	1000	1310	1530	97	119	75-137	16	30	
a,a,a-Trifluorotoluene (S)	%						104	118	75-125			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

QC Batch: MSV/23570 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10227466001, 10227466002, 10227466003

METHOD BLANK: 1424503 Matrix: Water
Associated Lab Samples: 10227466001, 10227466002, 10227466003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	05/08/13 23:56	
1,1,1-Trichloroethane	ug/L	<0.19	1.0	05/08/13 23:56	
1,1,2,2-Tetrachloroethane	ug/L	<0.097	1.0	05/08/13 23:56	
1,1,2-Trichloroethane	ug/L	<0.15	1.0	05/08/13 23:56	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.18	1.0	05/08/13 23:56	
1,1-Dichloroethane	ug/L	<0.11	1.0	05/08/13 23:56	
1,1-Dichloroethene	ug/L	<0.19	1.0	05/08/13 23:56	
1,1-Dichloropropene	ug/L	<0.35	1.0	05/08/13 23:56	
1,2,3-Trichlorobenzene	ug/L	0.16J	1.0	05/08/13 23:56	
1,2,3-Trichloropropane	ug/L	<0.33	4.0	05/08/13 23:56	
1,2,4-Trichlorobenzene	ug/L	<0.25	1.0	05/08/13 23:56	
1,2,4-Trimethylbenzene	ug/L	<0.071	1.0	05/08/13 23:56	
1,2-Dibromo-3-chloropropane	ug/L	<0.62	4.0	05/08/13 23:56	
1,2-Dibromoethane (EDB)	ug/L	<0.091	1.0	05/08/13 23:56	
1,2-Dichlorobenzene	ug/L	<0.36	1.0	05/08/13 23:56	
1,2-Dichloroethane	ug/L	<0.37	1.0	05/08/13 23:56	
1,2-Dichloropropane	ug/L	<0.27	4.0	05/08/13 23:56	
1,3,5-Trimethylbenzene	ug/L	<0.087	1.0	05/08/13 23:56	
1,3-Dichlorobenzene	ug/L	<0.11	1.0	05/08/13 23:56	
1,3-Dichloropropane	ug/L	<0.081	1.0	05/08/13 23:56	
1,4-Dichlorobenzene	ug/L	0.084J	1.0	05/08/13 23:56	
2,2-Dichloropropane	ug/L	<0.15	4.0	05/08/13 23:56	
2-Butanone (MEK)	ug/L	<2.5	5.0	05/08/13 23:56	
2-Chlorotoluene	ug/L	<0.50	1.0	05/08/13 23:56	
2-Hexanone	ug/L	<2.5	5.0	05/08/13 23:56	
4-Chlorotoluene	ug/L	<0.068	1.0	05/08/13 23:56	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	05/08/13 23:56	
Acetone	ug/L	<10.0	20.0	05/08/13 23:56	
Allyl chloride	ug/L	<1.8	4.0	05/08/13 23:56	
Benzene	ug/L	<0.062	1.0	05/08/13 23:56	
Bromobenzene	ug/L	<0.086	1.0	05/08/13 23:56	
Bromochloromethane	ug/L	<0.32	1.0	05/08/13 23:56	
Bromodichloromethane	ug/L	<0.11	1.0	05/08/13 23:56	
Bromoform	ug/L	<0.068	4.0	05/08/13 23:56	
Bromomethane	ug/L	1.2J	4.0	05/08/13 23:56	
Carbon disulfide	ug/L	<0.50	1.0	05/08/13 23:56	
Carbon tetrachloride	ug/L	<0.16	1.0	05/08/13 23:56	
Chlorobenzene	ug/L	<0.10	1.0	05/08/13 23:56	
Chloroethane	ug/L	<0.22	1.0	05/08/13 23:56	
Chloroform	ug/L	<0.14	1.0	05/08/13 23:56	
Chloromethane	ug/L	<0.41	4.0	05/08/13 23:56	
cis-1,2-Dichloroethene	ug/L	<0.085	1.0	05/08/13 23:56	
cis-1,3-Dichloropropene	ug/L	<0.090	4.0	05/08/13 23:56	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
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QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

METHOD BLANK: 1424503 Matrix: Water

Associated Lab Samples: 10227466001, 10227466002, 10227466003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.10	1.0	05/08/13 23:56	
Dibromomethane	ug/L	<0.21	4.0	05/08/13 23:56	
Dichlorodifluoromethane	ug/L	<0.20	1.0	05/08/13 23:56	
Dichlorofluoromethane	ug/L	<0.11	1.0	05/08/13 23:56	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	05/08/13 23:56	
Ethylbenzene	ug/L	<0.081	1.0	05/08/13 23:56	
Hexachloro-1,3-butadiene	ug/L	<0.19	5.0	05/08/13 23:56	
Isopropylbenzene (Cumene)	ug/L	<0.076	1.0	05/08/13 23:56	
m&p-Xylene	ug/L	<0.11	2.0	05/08/13 23:56	
Methyl-tert-butyl ether	ug/L	<0.088	1.0	05/08/13 23:56	
Methylene Chloride	ug/L	<2.0	4.0	05/08/13 23:56	
n-Butylbenzene	ug/L	<0.15	1.0	05/08/13 23:56	
n-Propylbenzene	ug/L	<0.078	1.0	05/08/13 23:56	
Naphthalene	ug/L	0.23J	4.0	05/08/13 23:56	
o-Xylene	ug/L	<0.10	1.0	05/08/13 23:56	
p-Isopropyltoluene	ug/L	<0.086	1.0	05/08/13 23:56	
sec-Butylbenzene	ug/L	<0.10	1.0	05/08/13 23:56	
Styrene	ug/L	<0.060	1.0	05/08/13 23:56	
tert-Butylbenzene	ug/L	<0.10	1.0	05/08/13 23:56	
Tetrachloroethene	ug/L	<0.13	1.0	05/08/13 23:56	
Tetrahydrofuran	ug/L	<0.97	10.0	05/08/13 23:56	
Toluene	ug/L	<0.077	1.0	05/08/13 23:56	
trans-1,2-Dichloroethene	ug/L	<0.15	1.0	05/08/13 23:56	
trans-1,3-Dichloropropene	ug/L	<0.37	4.0	05/08/13 23:56	
Trichloroethene	ug/L	<0.083	1.0	05/08/13 23:56	
Trichlorofluoromethane	ug/L	<0.13	1.0	05/08/13 23:56	
Vinyl chloride	ug/L	<0.16	0.40	05/08/13 23:56	
Xylene (Total)	ug/L	<0.22	3.0	05/08/13 23:56	
1,2-Dichloroethane-d4 (S)	%	103	75-125	05/08/13 23:56	
4-Bromofluorobenzene (S)	%	101	75-125	05/08/13 23:56	
Toluene-d8 (S)	%	101	75-125	05/08/13 23:56	

LABORATORY CONTROL SAMPLE: 1424504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.6	108	75-125	
1,1,1-Trichloroethane	ug/L	20	21.1	106	75-126	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	102	75-125	
1,1,2-Trichloroethane	ug/L	20	22.0	110	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	18.2	91	51-139	
1,1-Dichloroethane	ug/L	20	18.2	91	75-125	
1,1-Dichloroethene	ug/L	20	18.4	92	71-126	
1,1-Dichloropropene	ug/L	20	21.0	105	74-125	
1,2,3-Trichlorobenzene	ug/L	20	19.5	98	75-125	
1,2,3-Trichloropropane	ug/L	20	20.8	104	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

LABORATORY CONTROL SAMPLE: 1424504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	19.8	99	75-125	
1,2,4-Trimethylbenzene	ug/L	20	19.3	97	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	51.3	103	73-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.7	98	75-125	
1,2-Dichlorobenzene	ug/L	20	19.9	99	75-125	
1,2-Dichloroethane	ug/L	20	19.5	97	74-125	
1,2-Dichloropropane	ug/L	20	20.6	103	75-125	
1,3,5-Trimethylbenzene	ug/L	20	19.5	98	75-125	
1,3-Dichlorobenzene	ug/L	20	20.1	101	75-125	
1,3-Dichloropropane	ug/L	20	21.2	106	75-125	
1,4-Dichlorobenzene	ug/L	20	19.5	98	75-125	
2,2-Dichloropropane	ug/L	20	19.9	99	67-132	
2-Butanone (MEK)	ug/L	100	100	100	68-126	
2-Chlorotoluene	ug/L	20	20.1	101	74-125	
2-Hexanone	ug/L	100	104	104	70-125	
4-Chlorotoluene	ug/L	20	19.9	100	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	72-125	
Acetone	ug/L	100	103	103	69-132	
Allyl chloride	ug/L	20	21.1	106	74-125	
Benzene	ug/L	20	19.5	98	75-125	
Bromobenzene	ug/L	20	20.6	103	75-125	
Bromochloromethane	ug/L	20	19.8	99	75-125	
Bromodichloromethane	ug/L	20	22.5	113	75-125	
Bromoform	ug/L	20	20.0	100	75-126	
Bromomethane	ug/L	20	21.9	110	30-150	
Carbon disulfide	ug/L	20	17.7	89	66-126	
Carbon tetrachloride	ug/L	20	22.6	113	74-127	
Chlorobenzene	ug/L	20	19.5	98	75-125	
Chloroethane	ug/L	20	19.0	95	68-132	
Chloroform	ug/L	20	20.6	103	75-125	
Chloromethane	ug/L	20	18.3	91	61-129	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	75-125	
cis-1,3-Dichloropropene	ug/L	20	18.3	91	75-125	
Dibromochloromethane	ug/L	20	22.4	112	75-125	
Dibromomethane	ug/L	20	19.8	99	75-125	
Dichlorodifluoromethane	ug/L	20	19.6	98	49-137	
Dichlorofluoromethane	ug/L	20	18.4	92	66-133	
Diethyl ether (Ethyl ether)	ug/L	20	21.8	109	75-125	
Ethylbenzene	ug/L	20	18.5	93	75-125	
Hexachloro-1,3-butadiene	ug/L	20	19.7	99	69-127	
Isopropylbenzene (Cumene)	ug/L	20	19.5	98	75-125	
m&p-Xylene	ug/L	40	37.7	94	75-125	
Methyl-tert-butyl ether	ug/L	20	22.2	111	74-126	
Methylene Chloride	ug/L	20	19.2	96	75-125	
n-Butylbenzene	ug/L	20	20.2	101	72-126	
n-Propylbenzene	ug/L	20	19.0	95	73-125	
Naphthalene	ug/L	20	20.6	103	75-125	
o-Xylene	ug/L	20	19.5	97	75-125	

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QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

LABORATORY CONTROL SAMPLE: 1424504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	20.4	102	74-125	
sec-Butylbenzene	ug/L	20	19.6	98	73-125	
Styrene	ug/L	20	19.5	97	75-125	
tert-Butylbenzene	ug/L	20	18.8	94	73-125	
Tetrachloroethene	ug/L	20	19.2	96	75-125	
Tetrahydrofuran	ug/L	200	219	109	71-125	
Toluene	ug/L	20	19.2	96	75-125	
trans-1,2-Dichloroethene	ug/L	20	19.1	96	74-125	
trans-1,3-Dichloropropene	ug/L	20	22.0	110	75-125	
Trichloroethene	ug/L	20	19.4	97	75-125	
Trichlorofluoromethane	ug/L	20	17.9	89	69-129	
Vinyl chloride	ug/L	20	18.6	93	70-128	
Xylene (Total)	ug/L	60	57.2	95	75-125	
1,2-Dichloroethane-d4 (S)	%			104	75-125	
4-Bromofluorobenzene (S)	%			102	75-125	
Toluene-d8 (S)	%			102	75-125	

MATRIX SPIKE SAMPLE: 1432682

Parameter	Units	10227331001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	22.0	110	75-125	
1,1,1-Trichloroethane	ug/L	ND	20	23.1	115	75-136	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.1	101	66-131	
1,1,2-Trichloroethane	ug/L	ND	20	21.1	105	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	27.2	136	75-150	
1,1-Dichloroethane	ug/L	ND	20	19.3	97	75-131	
1,1-Dichloroethene	ug/L	ND	20	20.3	101	75-138	
1,1-Dichloropropene	ug/L	ND	20	23.6	118	75-136	
1,2,3-Trichlorobenzene	ug/L	ND	20	19.5	97	75-125	
1,2,3-Trichloropropane	ug/L	ND	20	20.0	100	71-126	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.4	97	75-125	
1,2,4-Trimethylbenzene	ug/L	ND	20	20.1	101	70-126	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	49.7	99	69-127	
1,2-Dibromoethane (EDB)	ug/L	ND	20	18.9	95	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	20.1	101	75-125	
1,2-Dichloroethane	ug/L	ND	20	19.2	96	74-128	
1,2-Dichloropropane	ug/L	ND	20	21.2	106	75-125	
1,3,5-Trimethylbenzene	ug/L	ND	20	20.8	104	72-126	
1,3-Dichlorobenzene	ug/L	ND	20	20.4	102	75-125	
1,3-Dichloropropane	ug/L	ND	20	20.5	102	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	19.5	97	75-125	
2,2-Dichloropropane	ug/L	ND	20	22.3	111	71-143	
2-Butanone (MEK)	ug/L	ND	100	96.8	97	64-125	
2-Chlorotoluene	ug/L	ND	20	21.0	105	74-125	
2-Hexanone	ug/L	ND	100	102	102	67-125	
4-Chlorotoluene	ug/L	ND	20	20.8	104	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	99.2	99	69-125	

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

QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

MATRIX SPIKE SAMPLE: 1432682

Parameter	Units	10227331001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	ND	100	92.1	91	57-135	
Allyl chloride	ug/L	ND	20	22.7	113	73-134	
Benzene	ug/L	ND	20	20.3	101	70-135	
Bromobenzene	ug/L	ND	20	20.3	101	75-125	
Bromochloromethane	ug/L	ND	20	19.9	100	75-125	
Bromodichloromethane	ug/L	ND	20	22.3	111	75-125	
Bromoform	ug/L	ND	20	19.4	97	68-133	
Bromomethane	ug/L	ND	20	24.0	115	56-150	
Carbon disulfide	ug/L	ND	20	20.0	99	66-135	
Carbon tetrachloride	ug/L	ND	20	25.7	129	75-137	
Chlorobenzene	ug/L	ND	20	19.7	98	75-125	
Chloroethane	ug/L	ND	20	21.3	107	64-150	
Chloroform	ug/L	ND	20	21.2	106	75-127	
Chloromethane	ug/L	ND	20	20.3	101	65-140	
cis-1,2-Dichloroethene	ug/L	ND	20	20.7	103	75-129	
cis-1,3-Dichloropropene	ug/L	ND	20	18.2	91	75-125	
Dibromochloromethane	ug/L	ND	20	21.5	107	75-125	
Dibromomethane	ug/L	ND	20	18.9	95	75-125	
Dichlorodifluoromethane	ug/L	ND	20	27.4	137	70-150	
Dichlorofluoromethane	ug/L	ND	20	21.1	106	69-142	
Diethyl ether (Ethyl ether)	ug/L	ND	20	19.7	98	75-125	
Ethylbenzene	ug/L	ND	20	19.5	98	75-125	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.4	102	75-135	
Isopropylbenzene (Cumene)	ug/L	ND	20	20.8	104	75-125	
m&p-Xylene	ug/L	ND	40	39.8	100	75-125	
Methyl-tert-butyl ether	ug/L	ND	20	22.1	111	70-132	
Methylene Chloride	ug/L	ND	20	19.2	96	73-125	
n-Butylbenzene	ug/L	ND	20	21.5	107	75-130	
n-Propylbenzene	ug/L	ND	20	20.7	103	75-128	
Naphthalene	ug/L	ND	20	19.7	98	73-126	
o-Xylene	ug/L	ND	20	20.2	101	75-125	
p-Isopropyltoluene	ug/L	ND	20	21.9	110	75-125	
sec-Butylbenzene	ug/L	ND	20	21.7	108	75-126	
Styrene	ug/L	ND	20	20.2	101	52-137	
tert-Butylbenzene	ug/L	ND	20	20.5	103	75-125	
Tetrachloroethene	ug/L	ND	20	21.4	106	75-130	
Tetrahydrofuran	ug/L	ND	200	193	97	69-125	
Toluene	ug/L	ND	20	20.1	101	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	20.6	103	75-135	
trans-1,3-Dichloropropene	ug/L	ND	20	21.4	107	75-125	
Trichloroethene	ug/L	ND	20	20.7	103	75-129	
Trichlorofluoromethane	ug/L	ND	20	25.3	126	75-150	
Vinyl chloride	ug/L	ND	20	22.1	110	75-147	
Xylene (Total)	ug/L	ND	60	60.1	100	75-125	
1,2-Dichloroethane-d4 (S)	%				104	75-125	
4-Bromofluorobenzene (S)	%				103	75-125	
Toluene-d8 (S)	%				104	75-125	

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(612)607-1700

QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

SAMPLE DUPLICATE: 1432683

Parameter	Units	10227331002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	<0.36		30	
1,1,1-Trichloroethane	ug/L	ND	<0.19		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	<0.097		30	
1,1,2-Trichloroethane	ug/L	ND	<0.15		30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	<0.18		30	
1,1-Dichloroethane	ug/L	ND	<0.11		30	
1,1-Dichloroethene	ug/L	ND	<0.19		30	
1,1-Dichloropropene	ug/L	ND	<0.35		30	
1,2,3-Trichlorobenzene	ug/L	ND	<0.13		30	
1,2,3-Trichloropropane	ug/L	ND	<0.33		30	
1,2,4-Trichlorobenzene	ug/L	ND	<0.25		30	
1,2,4-Trimethylbenzene	ug/L	ND	<0.071		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	<0.62		30	
1,2-Dibromoethane (EDB)	ug/L	ND	<0.091		30	
1,2-Dichlorobenzene	ug/L	ND	<0.36		30	
1,2-Dichloroethane	ug/L	ND	<0.37		30	
1,2-Dichloropropane	ug/L	ND	<0.27		30	
1,3,5-Trimethylbenzene	ug/L	ND	<0.087		30	
1,3-Dichlorobenzene	ug/L	ND	<0.11		30	
1,3-Dichloropropane	ug/L	ND	<0.081		30	
1,4-Dichlorobenzene	ug/L	ND	<0.064		30	
2,2-Dichloropropane	ug/L	ND	<0.15		30	
2-Butanone (MEK)	ug/L	ND	<2.5		30	
2-Chlorotoluene	ug/L	ND	<0.50		30	
2-Hexanone	ug/L	ND	<2.5		30	
4-Chlorotoluene	ug/L	ND	<0.068		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	<2.5		30	
Acetone	ug/L	ND	<10.0		30	
Allyl chloride	ug/L	ND	<1.8		30	
Benzene	ug/L	ND	<0.062		30	
Bromobenzene	ug/L	ND	<0.086		30	
Bromochloromethane	ug/L	ND	<0.32		30	
Bromodichloromethane	ug/L	ND	<0.11		30	
Bromoform	ug/L	ND	<0.068		30	
Bromomethane	ug/L	ND	0.68J		30	
Carbon disulfide	ug/L	ND	<0.50		30	
Carbon tetrachloride	ug/L	ND	<0.16		30	
Chlorobenzene	ug/L	ND	<0.10		30	
Chloroethane	ug/L	ND	<0.22		30	
Chloroform	ug/L	ND	<0.14		30	
Chloromethane	ug/L	ND	<0.41		30	
cis-1,2-Dichloroethene	ug/L	ND	<0.085		30	
cis-1,3-Dichloropropene	ug/L	ND	<0.090		30	
Dibromochloromethane	ug/L	ND	<0.10		30	
Dibromomethane	ug/L	ND	<0.21		30	
Dichlorodifluoromethane	ug/L	ND	<0.20		30	
Dichlorofluoromethane	ug/L	ND	<0.11		30	
Diethyl ether (Ethyl ether)	ug/L	ND	<2.0		30	

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QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

SAMPLE DUPLICATE: 1432683

Parameter	Units	10227331002 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/L	ND	<0.081		30	
Hexachloro-1,3-butadiene	ug/L	ND	<0.19		30	
Isopropylbenzene (Cumene)	ug/L	ND	<0.076		30	
m&p-Xylene	ug/L	ND	<0.11		30	
Methyl-tert-butyl ether	ug/L	ND	<0.088		30	
Methylene Chloride	ug/L	ND	<2.0		30	
n-Butylbenzene	ug/L	ND	<0.15		30	
n-Propylbenzene	ug/L	ND	<0.078		30	
Naphthalene	ug/L	ND	<0.068		30	
o-Xylene	ug/L	ND	<0.10		30	
p-Isopropyltoluene	ug/L	ND	<0.086		30	
sec-Butylbenzene	ug/L	ND	<0.10		30	
Styrene	ug/L	ND	<0.060		30	
tert-Butylbenzene	ug/L	ND	<0.10		30	
Tetrachloroethene	ug/L	4.8	5.2	8	30	
Tetrahydrofuran	ug/L	ND	<0.97		30	
Toluene	ug/L	ND	<0.077		30	
trans-1,2-Dichloroethene	ug/L	ND	<0.15		30	
trans-1,3-Dichloropropene	ug/L	ND	<0.37		30	
Trichloroethene	ug/L	ND	0.16J		30	
Trichlorofluoromethane	ug/L	ND	<0.13		30	
Vinyl chloride	ug/L	ND	<0.16		30	
Xylene (Total)	ug/L	ND	<0.22		30	
1,2-Dichloroethane-d4 (S)	%	103	103	.08		
4-Bromofluorobenzene (S)	%	99	100	.8		
Toluene-d8 (S)	%	100	101	.6		

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QUALITY CONTROL DATA

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

QC Batch: OEXT/21684 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10227466001, 10227466002, 10227466003

METHOD BLANK: 1433113 Matrix: Water
Associated Lab Samples: 10227466001, 10227466002, 10227466003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0028	0.010	05/15/13 16:51	
4-Bromofluorobenzene (S)	%	120	70-130	05/15/13 16:51	

LABORATORY CONTROL SAMPLE & LCSD: 1433114 1433115

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.11	0.11	97	102	60-140	3	20	

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QUALIFIERS

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tarr Vancouver-GWM
Pace Project No.: 10227466

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10227466001	**MW-1**	EPA 8011	OEXT/21684	EPA 8011	GCSV/11307
10227466002	**MW-4**	EPA 8011	OEXT/21684	EPA 8011	GCSV/11307
10227466003	**MW-5**	EPA 8011	OEXT/21684	EPA 8011	GCSV/11307
10227466001	**MW-1**	NWTPH-Gx/8021	GCV/10704		
10227466002	**MW-4**	NWTPH-Gx/8021	GCV/10704		
10227466003	**MW-5**	NWTPH-Gx/8021	GCV/10704		
10227466001	**MW-1**	EPA 8260	MSV/23570		
10227466002	**MW-4**	EPA 8260	MSV/23570		
10227466003	**MW-5**	EPA 8260	MSV/23570		

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

1138

CHAIN OF CUSTODY RECORD

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

10221466

Project Manager: John Foxwell
Analytical Lab: Pace Analytical
Project Name: Tarr Vancouver- GWM
Report To: jfoxwell@ashcreekassociates.com
Project Number: 1821-00
Page: 1 of 1
Sampler Name: Carmen Owens

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	None	Other	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: VOCs (8260B)	EDB (8011)	TPH-G (NWTPH-Gx)	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
MW-1	5/2/13	1045	9	X			X		X						X						X	X	X		X		
MW-4	5/3/13	1025	9	X			X		X						X						X	X	X		X		
MW-5	5/4/13	955	9	X			X		X						X						X	X	X		X		

Special Instructions:

Method of Shipment:

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y N

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Apex	5-2-13	1400	Pace 4.7	5-3-13	9:37
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.06	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Ash Creek Associates

Project #: WO#: 10227466

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

Tracking Number: 8820 4472 8680

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: ☑ 88A912167504 ☐ 80512447 ☐ 72337080 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.9 Cooler Temp Corrected (°C): 4.7

Temp should be above freezing to 6°C Correction Factor: +.8

Biological Tissue Frozen? ☐ Yes ☑ No

Date and Initials of Person Examining Contents: CW 5-3-13

				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
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	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☑ Yes	☐ No		Initial when completed: CW Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15. 6
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	2WT Trip Blank CW 5-3-13
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Carmen @ Ashcreek Date/Time: 5/6/13 10:40

Comments/Resolution: Do not analyse Trip Blank and collected data for MW-4 & MW-5 is 5/2/13. ok

Project Manager Review: JENNI GROSS Date: 5/6/13

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)

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

CHAIN OF CUSTODY RECORD

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: John Foxwell
Project Name: Tarr Vancouver- GWM
Project Number: 1821-00
Sampler Name: Carmen Owens

Analytical Lab: Pace Analytical
Report To: jfoxwell@ashcreekassociates.com
Page: 1 of 1

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	None	Other	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: VOCs (8260B)	EDB (8011)	TPH-G (NWTPH-Gx)	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
MW-1	5/2/13	1045	9	X			X		X						X						X	X	X		X		
MW-4	5/2/13	1025	9	X			X		X						X						X	X	X		X		
MW-5	5/2/13	955	9	X			X		X						X						X	X	X		X		

Special Instructions:

Method of Shipment:

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y N

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
[signature] Amex	5-2-13	1400			
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

Revised Received 5/6/13 10:40 GP

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

November 08, 2013

John Foxwell
Apex Companies, LLC
3015 SW First Ave
Portland, OR 97201

RE: Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 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.

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: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

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
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
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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Minneapolis, MN 55414
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SAMPLE SUMMARY

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10247959001	**MW-1**	Water	10/31/13 09:30	11/01/13 09:20
10247959002	**MW-4**	Water	10/31/13 10:20	11/01/13 09:20
10247959003	**MW-5**	Water	10/31/13 11:30	11/01/13 09:20

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10247959001	**MW-1**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	74	PASI-M
10247959002	**MW-4**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	74	PASI-M
10247959003	**MW-5**	EPA 8011	KL1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	74	PASI-M

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

PROJECT NARRATIVE

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Ash Creek Associates OR
Date: November 08, 2013

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/23567

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 1570064)
  - 4-Bromofluorobenzene (S)
- MSD (Lab ID: 1570065)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/23567

C0: Result confirmed by second analysis.

- MS (Lab ID: 1570064)
  - 4-Bromofluorobenzene (S)
- MSD (Lab ID: 1570065)
  - 4-Bromofluorobenzene (S)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Method: **NWTPH-Gx/8021**
Description: NWTPH-Gx GCV
Client: Ash Creek Associates OR
Date: November 08, 2013

General Information:
3 samples were analyzed for NWTPH-Gx/8021. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
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PROJECT NARRATIVE

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Method: **EPA 8260**
Description: 8260 VOC
Client: Ash Creek Associates OR
Date: November 08, 2013

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25514

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10247974001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1569854)
  - 2,2-Dichloropropane
  - Hexachloro-1,3-butadiene
  - n-Butylbenzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MSV/25514

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

- DUP (Lab ID: 1569855)
  - 1,1,1-Trichloroethane

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Method: **EPA 8260**
Description: 8260 VOC
Client: Ash Creek Associates OR
Date: November 08, 2013

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-1 **Lab ID: 10247959001** Collected: 10/31/13 09:30 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0097	0.0027	1	11/05/13 11:55	11/07/13 01:42	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1	11/05/13 11:55	11/07/13 01:42	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**401**	ug/L	100	50.0	1		11/08/13 00:44		
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	75-125		1		11/08/13 00:44	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		11/06/13 18:08	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		11/06/13 18:08	107-05-1	
Benzene	**0.34J**	ug/L	1.0	0.24	1		11/06/13 18:08	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 18:08	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		11/06/13 18:08	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	74-83-9	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		11/06/13 18:08	78-93-3	
n-Butylbenzene	**1.4**	ug/L	1.0	0.50	1		11/06/13 18:08	104-51-8	
sec-Butylbenzene	**3.1**	ug/L	1.0	0.50	1		11/06/13 18:08	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	98-06-6	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		11/06/13 18:08	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		11/06/13 18:08	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 18:08	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		11/06/13 18:08	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	95-49-8	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 18:08	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	96-12-8	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		11/06/13 18:08	124-48-1	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		11/06/13 18:08	106-93-4	
Dibromomethane	**<0.14**	ug/L	4.0	0.14	1		11/06/13 18:08	74-95-3	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		11/06/13 18:08	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	106-46-7	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		11/06/13 18:08	75-71-8	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	75-34-3	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		11/06/13 18:08	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 18:08	75-35-4	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 18:08	156-59-2	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 18:08	156-60-5	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		11/06/13 18:08	75-43-4	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		11/06/13 18:08	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	142-28-9	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-1 **Lab ID: 10247959001** Collected: 10/31/13 09:30 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		11/06/13 18:08	594-20-7	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		11/06/13 18:08	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		11/06/13 18:08	10061-01-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	60-29-7	
Ethylbenzene	**13.1**	ug/L	1.0	0.24	1		11/06/13 18:08	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		11/06/13 18:08	591-78-6	
Isopropylbenzene (Cumene)	**9.7**	ug/L	1.0	0.50	1		11/06/13 18:08	98-82-8	
p-Isopropyltoluene	**0.56J**	ug/L	1.0	0.50	1		11/06/13 18:08	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		11/06/13 18:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		11/06/13 18:08	108-10-1	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	1634-04-4	
Naphthalene	**5.4**	ug/L	4.0	2.0	1		11/06/13 18:08	91-20-3	
n-Propylbenzene	**20.3**	ug/L	1.0	0.50	1		11/06/13 18:08	103-65-1	
Styrene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 18:08	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		11/06/13 18:08	79-34-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		11/06/13 18:08	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		11/06/13 18:08	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 18:08	108-88-3	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 18:08	71-55-6	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		11/06/13 18:08	79-00-5	
Trichloroethene	**<0.12**	ug/L	0.40	0.12	1		11/06/13 18:08	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		11/06/13 18:08	75-69-4	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		11/06/13 18:08	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	1.0	0.33	1		11/06/13 18:08	76-13-1	
1,2,4-Trimethylbenzene	**48.7**	ug/L	1.0	0.50	1		11/06/13 18:08	95-63-6	
1,3,5-Trimethylbenzene	**15.4**	ug/L	1.0	0.50	1		11/06/13 18:08	108-67-8	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		11/06/13 18:08	75-01-4	
Xylene (Total)	**12.9**	ug/L	3.0	0.72	1		11/06/13 18:08	1330-20-7	
m&p-Xylene	**12.9**	ug/L	2.0	0.48	1		11/06/13 18:08	179601-23-1	
o-Xylene	**0.50J**	ug/L	1.0	0.24	1		11/06/13 18:08	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%	75-125		1		11/06/13 18:08	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		11/06/13 18:08	2037-26-5	
4-Bromofluorobenzene (S)	101	%	75-125		1		11/06/13 18:08	460-00-4	

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-4 **Lab ID: 10247959002** Collected: 10/31/13 10:20 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0028**	ug/L	0.0098	0.0028	1	11/05/13 11:55	11/07/13 02:08	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	113	%	70-130		1	11/05/13 11:55	11/07/13 02:08	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		11/08/13 01:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	96	%	75-125		1		11/08/13 01:04	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		11/06/13 19:56	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		11/06/13 19:56	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 19:56	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		11/06/13 19:56	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	74-83-9	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		11/06/13 19:56	78-93-3	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	98-06-6	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		11/06/13 19:56	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		11/06/13 19:56	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		11/06/13 19:56	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	95-49-8	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 19:56	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	96-12-8	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		11/06/13 19:56	124-48-1	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		11/06/13 19:56	106-93-4	
Dibromomethane	**<0.14**	ug/L	4.0	0.14	1		11/06/13 19:56	74-95-3	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		11/06/13 19:56	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	106-46-7	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		11/06/13 19:56	75-71-8	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	75-34-3	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		11/06/13 19:56	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	75-35-4	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 19:56	156-59-2	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	156-60-5	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		11/06/13 19:56	75-43-4	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		11/06/13 19:56	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	142-28-9	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-4 **Lab ID: 10247959002** Collected: 10/31/13 10:20 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		11/06/13 19:56	594-20-7	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		11/06/13 19:56	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		11/06/13 19:56	10061-01-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		11/06/13 19:56	591-78-6	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		11/06/13 19:56	108-10-1	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	1634-04-4	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		11/06/13 19:56	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	103-65-1	
Styrene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		11/06/13 19:56	79-34-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		11/06/13 19:56	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		11/06/13 19:56	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		11/06/13 19:56	108-88-3	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	71-55-6	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		11/06/13 19:56	79-00-5	
Trichloroethene	**<0.12**	ug/L	0.40	0.12	1		11/06/13 19:56	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		11/06/13 19:56	75-69-4	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		11/06/13 19:56	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	1.0	0.33	1		11/06/13 19:56	76-13-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/06/13 19:56	108-67-8	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		11/06/13 19:56	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		11/06/13 19:56	1330-20-7	
m&p-Xylene	**<0.48**	ug/L	2.0	0.48	1		11/06/13 19:56	179601-23-1	
o-Xylene	**<0.24**	ug/L	1.0	0.24	1		11/06/13 19:56	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%	75-125		1		11/06/13 19:56	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		11/06/13 19:56	2037-26-5	
4-Bromofluorobenzene (S)	101	%	75-125		1		11/06/13 19:56	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-5 **Lab ID: 10247959003** Collected: 10/31/13 11:30 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0028**	ug/L	0.0098	0.0028	1	11/05/13 11:55	11/07/13 02:33	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1	11/05/13 11:55	11/07/13 02:33	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		11/08/13 01:24		
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	75-125		1		11/08/13 01:24	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	20.0	10.0	1		11/07/13 09:03	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		11/07/13 09:03	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		11/07/13 09:03	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		11/07/13 09:03	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	74-83-9	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		11/07/13 09:03	78-93-3	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	98-06-6	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		11/07/13 09:03	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		11/07/13 09:03	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		11/07/13 09:03	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	95-49-8	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		11/07/13 09:03	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	96-12-8	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		11/07/13 09:03	124-48-1	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		11/07/13 09:03	106-93-4	
Dibromomethane	**<0.14**	ug/L	4.0	0.14	1		11/07/13 09:03	74-95-3	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		11/07/13 09:03	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	106-46-7	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		11/07/13 09:03	75-71-8	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	75-34-3	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		11/07/13 09:03	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	75-35-4	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		11/07/13 09:03	156-59-2	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	156-60-5	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		11/07/13 09:03	75-43-4	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		11/07/13 09:03	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	142-28-9	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Sample: MW-5 **Lab ID: 10247959003** Collected: 10/31/13 11:30 Received: 11/01/13 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		11/07/13 09:03	594-20-7	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		11/07/13 09:03	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		11/07/13 09:03	10061-01-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	10061-02-6	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	87-68-3	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		11/07/13 09:03	591-78-6	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	99-87-6	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		11/07/13 09:03	108-10-1	
Methyl-tert-butyl ether	**1.6**	ug/L	1.0	0.50	1		11/07/13 09:03	1634-04-4	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		11/07/13 09:03	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	103-65-1	
Styrene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		11/07/13 09:03	79-34-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		11/07/13 09:03	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		11/07/13 09:03	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		11/07/13 09:03	108-88-3	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	71-55-6	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		11/07/13 09:03	79-00-5	
Trichloroethene	**<0.12**	ug/L	0.40	0.12	1		11/07/13 09:03	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		11/07/13 09:03	75-69-4	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		11/07/13 09:03	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	1.0	0.33	1		11/07/13 09:03	76-13-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		11/07/13 09:03	108-67-8	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		11/07/13 09:03	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		11/07/13 09:03	1330-20-7	
m&p-Xylene	**<0.48**	ug/L	2.0	0.48	1		11/07/13 09:03	179601-23-1	
o-Xylene	**<0.24**	ug/L	1.0	0.24	1		11/07/13 09:03	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%	75-125		1		11/07/13 09:03	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		11/07/13 09:03	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125		1		11/07/13 09:03	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

QC Batch: GCV/11437 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10247959001, 10247959002, 10247959003

METHOD BLANK: 1571832 Matrix: Water
Associated Lab Samples: 10247959001, 10247959002, 10247959003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	11/08/13 00:24	
a,a,a-Trifluorotoluene (S)	%	98	75-125	11/08/13 00:24	

METHOD BLANK: 1573194 Matrix: Water
Associated Lab Samples: 10247959001, 10247959002, 10247959003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	11/08/13 07:04	
a,a,a-Trifluorotoluene (S)	%	93	75-125	11/08/13 07:04	

LABORATORY CONTROL SAMPLE & LCSD: 1571833 1571834

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1000	975	100	98	75-126	3	20	
a,a,a-Trifluorotoluene (S)	%				105	104	75-125			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1573201 1573202

Parameter	Units	10247631002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH as Gas	ug/L	18400	20000	20000	40600	40000	111	108	75-137	2	30	
a,a,a-Trifluorotoluene (S)	%						119	125	75-125			

SAMPLE DUPLICATE: 1573193

Parameter	Units	10247631012 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	19700	18900	4	30	
a,a,a-Trifluorotoluene (S)	%	112	104	7		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

QC Batch: MSV/25513 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10247959001, 10247959002

METHOD BLANK: 1569843 Matrix: Water
Associated Lab Samples: 10247959001, 10247959002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	1.0	11/06/13 17:53	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/06/13 17:53	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	1.0	11/06/13 17:53	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	11/06/13 17:53	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	1.0	11/06/13 17:53	
1,1-Dichloroethane	ug/L	<0.50	1.0	11/06/13 17:53	
1,1-Dichloroethene	ug/L	<0.24	1.0	11/06/13 17:53	
1,1-Dichloropropene	ug/L	<0.25	1.0	11/06/13 17:53	
1,2,3-Trichlorobenzene	ug/L	<0.50	1.0	11/06/13 17:53	
1,2,3-Trichloropropane	ug/L	<0.54	4.0	11/06/13 17:53	
1,2,4-Trichlorobenzene	ug/L	<0.50	1.0	11/06/13 17:53	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	11/06/13 17:53	
1,2-Dibromoethane (EDB)	ug/L	<0.23	1.0	11/06/13 17:53	
1,2-Dichlorobenzene	ug/L	<0.092	1.0	11/06/13 17:53	
1,2-Dichloroethane	ug/L	<0.22	1.0	11/06/13 17:53	
1,2-Dichloropropane	ug/L	<0.20	4.0	11/06/13 17:53	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/06/13 17:53	
1,3-Dichloropropane	ug/L	<0.50	1.0	11/06/13 17:53	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/06/13 17:53	
2,2-Dichloropropane	ug/L	<0.50	4.0	11/06/13 17:53	
2-Butanone (MEK)	ug/L	<2.5	5.0	11/06/13 17:53	
2-Chlorotoluene	ug/L	<0.50	1.0	11/06/13 17:53	
2-Hexanone	ug/L	<2.5	5.0	11/06/13 17:53	
4-Chlorotoluene	ug/L	<0.23	1.0	11/06/13 17:53	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	11/06/13 17:53	
Acetone	ug/L	<10.0	20.0	11/06/13 17:53	
Allyl chloride	ug/L	<0.23	4.0	11/06/13 17:53	
Benzene	ug/L	<0.24	1.0	11/06/13 17:53	
Bromobenzene	ug/L	<0.23	1.0	11/06/13 17:53	
Bromochloromethane	ug/L	<0.50	1.0	11/06/13 17:53	
Bromodichloromethane	ug/L	<0.25	1.0	11/06/13 17:53	
Bromoform	ug/L	<2.0	4.0	11/06/13 17:53	
Bromomethane	ug/L	<2.0	4.0	11/06/13 17:53	
Carbon disulfide	ug/L	<0.22	1.0	11/06/13 17:53	
Carbon tetrachloride	ug/L	<0.31	1.0	11/06/13 17:53	
Chlorobenzene	ug/L	<0.24	1.0	11/06/13 17:53	
Chloroethane	ug/L	<0.50	1.0	11/06/13 17:53	
Chloroform	ug/L	<0.27	1.0	11/06/13 17:53	
Chloromethane	ug/L	<2.0	4.0	11/06/13 17:53	
cis-1,2-Dichloroethene	ug/L	<0.23	1.0	11/06/13 17:53	
cis-1,3-Dichloropropene	ug/L	<0.50	4.0	11/06/13 17:53	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

METHOD BLANK: 1569843 Matrix: Water

Associated Lab Samples: 10247959001, 10247959002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.27	1.0	11/06/13 17:53	
Dibromomethane	ug/L	<0.14	4.0	11/06/13 17:53	
Dichlorodifluoromethane	ug/L	<0.40	1.0	11/06/13 17:53	
Dichlorofluoromethane	ug/L	<0.20	1.0	11/06/13 17:53	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	11/06/13 17:53	
Ethylbenzene	ug/L	<0.24	1.0	11/06/13 17:53	
Hexachloro-1,3-butadiene	ug/L	<0.50	1.0	11/06/13 17:53	
Isopropylbenzene (Cumene)	ug/L	<0.50	1.0	11/06/13 17:53	
m&p-Xylene	ug/L	<0.48	2.0	11/06/13 17:53	
Methyl-tert-butyl ether	ug/L	<0.50	1.0	11/06/13 17:53	
Methylene Chloride	ug/L	<2.0	4.0	11/06/13 17:53	
n-Butylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
n-Propylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
Naphthalene	ug/L	<2.0	4.0	11/06/13 17:53	
o-Xylene	ug/L	<0.24	1.0	11/06/13 17:53	
p-Isopropyltoluene	ug/L	<0.50	1.0	11/06/13 17:53	
sec-Butylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
Styrene	ug/L	<0.24	1.0	11/06/13 17:53	
tert-Butylbenzene	ug/L	<0.50	1.0	11/06/13 17:53	
Tetrachloroethene	ug/L	<0.29	1.0	11/06/13 17:53	
Tetrahydrofuran	ug/L	<2.9	10.0	11/06/13 17:53	
Toluene	ug/L	<0.23	1.0	11/06/13 17:53	
trans-1,2-Dichloroethene	ug/L	<0.24	1.0	11/06/13 17:53	
trans-1,3-Dichloropropene	ug/L	<2.0	4.0	11/06/13 17:53	
Trichloroethene	ug/L	<0.12	0.40	11/06/13 17:53	
Trichlorofluoromethane	ug/L	<0.13	1.0	11/06/13 17:53	
Vinyl chloride	ug/L	<0.14	0.40	11/06/13 17:53	
Xylene (Total)	ug/L	<0.72	3.0	11/06/13 17:53	
1,2-Dichloroethane-d4 (S)	%	96	75-125	11/06/13 17:53	
4-Bromofluorobenzene (S)	%	103	75-125	11/06/13 17:53	
Toluene-d8 (S)	%	93	75-125	11/06/13 17:53	

LABORATORY CONTROL SAMPLE: 1569844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.5	98	75-125	
1,1,1-Trichloroethane	ug/L	20	19.3	97	75-126	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	94	75-125	
1,1,2-Trichloroethane	ug/L	20	19.4	97	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.5	103	51-139	
1,1-Dichloroethane	ug/L	20	19.5	97	75-125	
1,1-Dichloroethene	ug/L	20	20.5	103	71-126	
1,1-Dichloropropene	ug/L	20	19.5	98	74-125	
1,2,3-Trichlorobenzene	ug/L	20	20.1	100	75-125	
1,2,3-Trichloropropane	ug/L	20	18.2	91	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

LABORATORY CONTROL SAMPLE: 1569844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	20.6	103	75-125	
1,2,4-Trimethylbenzene	ug/L	20	18.8	94	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	43.9	88	73-125	
1,2-Dibromoethane (EDB)	ug/L	20	17.7	88	75-125	
1,2-Dichlorobenzene	ug/L	20	19.3	97	75-125	
1,2-Dichloroethane	ug/L	20	18.3	92	74-125	
1,2-Dichloropropane	ug/L	20	19.1	95	75-125	
1,3,5-Trimethylbenzene	ug/L	20	19.0	95	75-125	
1,3-Dichlorobenzene	ug/L	20	19.7	98	75-125	
1,3-Dichloropropane	ug/L	20	19.6	98	75-125	
1,4-Dichlorobenzene	ug/L	20	19.7	99	75-125	
2,2-Dichloropropane	ug/L	20	20.1	100	67-132	
2-Butanone (MEK)	ug/L	100	85.2	85	68-126	
2-Chlorotoluene	ug/L	20	18.2	91	74-125	
2-Hexanone	ug/L	100	89.0	89	70-125	
4-Chlorotoluene	ug/L	20	18.4	92	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	90.2	90	72-125	
Acetone	ug/L	100	98.6	99	69-132	
Allyl chloride	ug/L	20	19.3	97	74-125	
Benzene	ug/L	20	19.0	95	75-125	
Bromobenzene	ug/L	20	19.7	98	75-125	
Bromochloromethane	ug/L	20	19.0	95	75-125	
Bromodichloromethane	ug/L	20	18.1	91	75-125	
Bromoform	ug/L	20	18.7	93	75-126	
Bromomethane	ug/L	20	22.8	114	30-150	
Carbon disulfide	ug/L	20	16.3	82	66-126	
Carbon tetrachloride	ug/L	20	18.5	93	74-127	
Chlorobenzene	ug/L	20	18.4	92	75-125	
Chloroethane	ug/L	20	21.9	109	68-132	
Chloroform	ug/L	20	17.9	89	75-125	
Chloromethane	ug/L	20	20.1	100	61-129	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.4	97	75-125	
Dibromochloromethane	ug/L	20	18.6	93	75-125	
Dibromomethane	ug/L	20	19.3	96	75-125	
Dichlorodifluoromethane	ug/L	20	19.2	96	49-137	
Dichlorofluoromethane	ug/L	20	19.0	95	66-133	
Diethyl ether (Ethyl ether)	ug/L	20	17.1	85	75-125	
Ethylbenzene	ug/L	20	18.8	94	75-125	
Hexachloro-1,3-butadiene	ug/L	20	21.3	106	69-127	
Isopropylbenzene (Cumene)	ug/L	20	19.6	98	75-125	
m&p-Xylene	ug/L	40	39.6	99	75-125	
Methyl-tert-butyl ether	ug/L	20	18.5	92	74-126	
Methylene Chloride	ug/L	20	18.4	92	75-125	
n-Butylbenzene	ug/L	20	19.2	96	72-126	
n-Propylbenzene	ug/L	20	19.3	96	73-125	
Naphthalene	ug/L	20	19.7	99	75-125	
o-Xylene	ug/L	20	19.1	95	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

LABORATORY CONTROL SAMPLE: 1569844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	19.7	98	74-125	
sec-Butylbenzene	ug/L	20	19.7	98	73-125	
Styrene	ug/L	20	19.8	99	75-125	
tert-Butylbenzene	ug/L	20	19.1	96	73-125	
Tetrachloroethene	ug/L	20	19.9	100	75-125	
Tetrahydrofuran	ug/L	200	206	103	71-125	
Toluene	ug/L	20	19.5	98	75-125	
trans-1,2-Dichloroethene	ug/L	20	17.7	88	74-125	
trans-1,3-Dichloropropene	ug/L	20	19.3	97	75-125	
Trichloroethene	ug/L	20	20.1	101	75-125	
Trichlorofluoromethane	ug/L	20	20.2	101	69-129	
Vinyl chloride	ug/L	20	21.9	109	70-128	
Xylene (Total)	ug/L	60	58.7	98	75-125	
1,2-Dichloroethane-d4 (S)	%			98	75-125	
4-Bromofluorobenzene (S)	%			98	75-125	
Toluene-d8 (S)	%			101	75-125	

MATRIX SPIKE SAMPLE: 1570019

Parameter	Units	10247959001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	20	19.8	99	75-125	
1,1,1-Trichloroethane	ug/L	<0.50	20	20.7	104	75-136	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	20	19.0	95	66-131	
1,1,2-Trichloroethane	ug/L	<0.16	20	20.2	101	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	20	25.3	127	75-150	
1,1-Dichloroethane	ug/L	<0.50	20	19.4	97	75-131	
1,1-Dichloroethene	ug/L	<0.24	20	22.6	113	75-138	
1,1-Dichloropropene	ug/L	<0.25	20	21.2	106	75-136	
1,2,3-Trichlorobenzene	ug/L	<0.50	20	22.2	111	75-125	
1,2,3-Trichloropropane	ug/L	<0.54	20	18.6	93	71-126	
1,2,4-Trichlorobenzene	ug/L	<0.50	20	21.9	110	75-125	
1,2,4-Trimethylbenzene	ug/L	48.7	20	69.7	105	70-126	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	50	47.8	96	69-127	
1,2-Dibromoethane (EDB)	ug/L	<0.23	20	18.1	91	75-125	
1,2-Dichlorobenzene	ug/L	<0.092	20	20.2	101	75-125	
1,2-Dichloroethane	ug/L	<0.22	20	18.7	94	74-128	
1,2-Dichloropropane	ug/L	<0.20	20	19.7	98	75-125	
1,3,5-Trimethylbenzene	ug/L	15.4	20	35.5	101	72-126	
1,3-Dichlorobenzene	ug/L	<0.50	20	20.3	102	75-125	
1,3-Dichloropropane	ug/L	<0.50	20	19.8	99	75-125	
1,4-Dichlorobenzene	ug/L	<0.50	20	20.4	102	75-125	
2,2-Dichloropropane	ug/L	<0.50	20	18.4	92	71-143	
2-Butanone (MEK)	ug/L	<2.5	100	97.8	98	64-125	
2-Chlorotoluene	ug/L	<0.50	20	20.8	104	74-125	
2-Hexanone	ug/L	<2.5	100	95.1	95	67-125	
4-Chlorotoluene	ug/L	<0.23	20	19.1	96	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	100	96.1	96	69-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

MATRIX SPIKE SAMPLE: 1570019

Parameter	Units	10247959001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	<10.0	100	107	107	57-135	
Allyl chloride	ug/L	<0.23	20	19.6	98	73-134	
Benzene	ug/L	0.34J	20	20.5	101	70-135	
Bromobenzene	ug/L	<0.23	20	20.4	102	75-125	
Bromochloromethane	ug/L	<0.50	20	19.5	97	75-125	
Bromodichloromethane	ug/L	<0.25	20	18.7	94	75-125	
Bromoform	ug/L	<2.0	20	19.1	95	68-133	
Bromomethane	ug/L	<2.0	20	20.7	102	56-150	
Carbon disulfide	ug/L	<0.22	20	18.0	89	66-135	
Carbon tetrachloride	ug/L	<0.31	20	20.4	102	75-137	
Chlorobenzene	ug/L	<0.24	20	19.2	96	75-125	
Chloroethane	ug/L	<0.50	20	20.1	100	64-150	
Chloroform	ug/L	<0.27	20	19.1	96	75-127	
Chloromethane	ug/L	<2.0	20	19.3	96	65-140	
cis-1,2-Dichloroethene	ug/L	<0.23	20	18.6	93	75-129	
cis-1,3-Dichloropropene	ug/L	<0.50	20	19.7	99	75-125	
Dibromochloromethane	ug/L	<0.27	20	19.1	96	75-125	
Dibromomethane	ug/L	<0.14	20	19.8	99	75-125	
Dichlorodifluoromethane	ug/L	<0.40	20	24.0	120	70-150	
Dichlorofluoromethane	ug/L	<0.20	20	20.1	100	69-142	
Diethyl ether (Ethyl ether)	ug/L	<2.0	20	17.1	86	75-125	
Ethylbenzene	ug/L	13.1	20	33.0	99	75-125	
Hexachloro-1,3-butadiene	ug/L	<0.50	20	21.9	110	75-135	
Isopropylbenzene (Cumene)	ug/L	9.7	20	30.7	105	75-125	
m&p-Xylene	ug/L	12.9	40	54.7	104	75-125	
Methyl-tert-butyl ether	ug/L	<0.50	20	19.8	99	70-132	
Methylene Chloride	ug/L	<2.0	20	19.2	96	73-125	
n-Butylbenzene	ug/L	1.4	20	21.7	102	75-130	
n-Propylbenzene	ug/L	20.3	20	39.2	95	75-128	
Naphthalene	ug/L	5.4	20	28.3	115	73-126	
o-Xylene	ug/L	0.50J	20	20.4	99	75-125	
p-Isopropyltoluene	ug/L	0.56J	20	21.8	106	75-125	
sec-Butylbenzene	ug/L	3.1	20	23.9	104	75-126	
Styrene	ug/L	<0.24	20	19.2	96	52-137	
tert-Butylbenzene	ug/L	<0.50	20	20.2	101	75-125	
Tetrachloroethene	ug/L	<0.29	20	21.2	106	75-130	
Tetrahydrofuran	ug/L	<2.9	200	204	102	69-125	
Toluene	ug/L	<0.23	20	20.7	103	75-125	
trans-1,2-Dichloroethene	ug/L	<0.24	20	19.1	95	75-135	
trans-1,3-Dichloropropene	ug/L	<2.0	20	19.6	98	75-125	
Trichloroethene	ug/L	<0.12	20	21.4	107	75-129	
Trichlorofluoromethane	ug/L	<0.13	20	22.8	114	75-150	
Vinyl chloride	ug/L	<0.14	20	20.9	104	75-147	
Xylene (Total)	ug/L	12.9	60	75.0	104	75-125	
1,2-Dichloroethane-d4 (S)	%				98	75-125	
4-Bromofluorobenzene (S)	%				97	75-125	
Toluene-d8 (S)	%				101	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

SAMPLE DUPLICATE: 1570020

Parameter	Units	10247959002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50		30	
1,1,1-Trichloroethane	ug/L	<0.50	<0.50		30	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	<0.13		30	
1,1,2-Trichloroethane	ug/L	<0.16	<0.16		30	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	<0.33		30	
1,1-Dichloroethane	ug/L	<0.50	<0.50		30	
1,1-Dichloroethene	ug/L	<0.24	<0.24		30	
1,1-Dichloropropene	ug/L	<0.25	<0.25		30	
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50		30	
1,2,3-Trichloropropane	ug/L	<0.54	<0.54		30	
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50		30	
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50		30	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0		30	
1,2-Dibromoethane (EDB)	ug/L	<0.23	<0.23		30	
1,2-Dichlorobenzene	ug/L	<0.092	<0.092		30	
1,2-Dichloroethane	ug/L	<0.22	<0.22		30	
1,2-Dichloropropane	ug/L	<0.20	<0.20		30	
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50		30	
1,3-Dichlorobenzene	ug/L	<0.50	<0.50		30	
1,3-Dichloropropane	ug/L	<0.50	<0.50		30	
1,4-Dichlorobenzene	ug/L	<0.50	<0.50		30	
2,2-Dichloropropane	ug/L	<0.50	<0.50		30	
2-Butanone (MEK)	ug/L	<2.5	<2.5		30	
2-Chlorotoluene	ug/L	<0.50	<0.50		30	
2-Hexanone	ug/L	<2.5	<2.5		30	
4-Chlorotoluene	ug/L	<0.23	<0.23		30	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	<2.5		30	
Acetone	ug/L	<10.0	<10.0		30	
Allyl chloride	ug/L	<0.23	<0.23		30	
Benzene	ug/L	<0.24	<0.24		30	
Bromobenzene	ug/L	<0.23	<0.23		30	
Bromochloromethane	ug/L	<0.50	<0.50		30	
Bromodichloromethane	ug/L	<0.25	<0.25		30	
Bromoform	ug/L	<2.0	<2.0		30	
Bromomethane	ug/L	<2.0	<2.0		30	
Carbon disulfide	ug/L	<0.22	<0.22		30	
Carbon tetrachloride	ug/L	<0.31	<0.31		30	
Chlorobenzene	ug/L	<0.24	<0.24		30	
Chloroethane	ug/L	<0.50	<0.50		30	
Chloroform	ug/L	<0.27	<0.27		30	
Chloromethane	ug/L	<2.0	<2.0		30	
cis-1,2-Dichloroethene	ug/L	<0.23	<0.23		30	
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50		30	
Dibromochloromethane	ug/L	<0.27	<0.27		30	
Dibromomethane	ug/L	<0.14	<0.14		30	
Dichlorodifluoromethane	ug/L	<0.40	<0.40		30	
Dichlorofluoromethane	ug/L	<0.20	<0.20		30	
Diethyl ether (Ethyl ether)	ug/L	<2.0	<2.0		30	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

SAMPLE DUPLICATE: 1570020

Parameter	Units	10247959002 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/L	<0.24	0.36J		30	
Hexachloro-1,3-butadiene	ug/L	<0.50	<0.50		30	
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50		30	
m&p-Xylene	ug/L	<0.48	<0.48		30	
Methyl-tert-butyl ether	ug/L	<0.50	<0.50		30	
Methylene Chloride	ug/L	<2.0	<2.0		30	
n-Butylbenzene	ug/L	<0.50	<0.50		30	
n-Propylbenzene	ug/L	<0.50	<0.50		30	
Naphthalene	ug/L	<2.0	<2.0		30	
o-Xylene	ug/L	<0.24	<0.24		30	
p-Isopropyltoluene	ug/L	<0.50	<0.50		30	
sec-Butylbenzene	ug/L	<0.50	<0.50		30	
Styrene	ug/L	<0.24	<0.24		30	
tert-Butylbenzene	ug/L	<0.50	<0.50		30	
Tetrachloroethene	ug/L	<0.29	<0.29		30	
Tetrahydrofuran	ug/L	<2.9	<2.9		30	
Toluene	ug/L	<0.23	0.27J		30	
trans-1,2-Dichloroethene	ug/L	<0.24	<0.24		30	
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0		30	
Trichloroethene	ug/L	<0.12	<0.12		30	
Trichlorofluoromethane	ug/L	<0.13	<0.13		30	
Vinyl chloride	ug/L	<0.14	<0.14		30	
Xylene (Total)	ug/L	<0.72	<0.72		30	
1,2-Dichloroethane-d4 (S)	%	100	97	3		
4-Bromofluorobenzene (S)	%	101	102	.5		
Toluene-d8 (S)	%	101	101	.08		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

QC Batch: MSV/25514 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10247959003

METHOD BLANK: 1569848 Matrix: Water
Associated Lab Samples: 10247959003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	1.0	11/07/13 04:41	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/07/13 04:41	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	1.0	11/07/13 04:41	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	11/07/13 04:41	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	1.0	11/07/13 04:41	
1,1-Dichloroethane	ug/L	<0.50	1.0	11/07/13 04:41	
1,1-Dichloroethene	ug/L	<0.24	1.0	11/07/13 04:41	
1,1-Dichloropropene	ug/L	<0.25	1.0	11/07/13 04:41	
1,2,3-Trichlorobenzene	ug/L	<0.50	1.0	11/07/13 04:41	
1,2,3-Trichloropropane	ug/L	<0.54	4.0	11/07/13 04:41	
1,2,4-Trichlorobenzene	ug/L	<0.50	1.0	11/07/13 04:41	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	11/07/13 04:41	
1,2-Dibromoethane (EDB)	ug/L	<0.23	1.0	11/07/13 04:41	
1,2-Dichlorobenzene	ug/L	<0.092	1.0	11/07/13 04:41	
1,2-Dichloroethane	ug/L	<0.22	1.0	11/07/13 04:41	
1,2-Dichloropropane	ug/L	<0.20	4.0	11/07/13 04:41	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/07/13 04:41	
1,3-Dichloropropane	ug/L	<0.50	1.0	11/07/13 04:41	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/07/13 04:41	
2,2-Dichloropropane	ug/L	<0.50	4.0	11/07/13 04:41	
2-Butanone (MEK)	ug/L	<2.5	5.0	11/07/13 04:41	
2-Chlorotoluene	ug/L	<0.50	1.0	11/07/13 04:41	
2-Hexanone	ug/L	<2.5	5.0	11/07/13 04:41	
4-Chlorotoluene	ug/L	<0.23	1.0	11/07/13 04:41	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	11/07/13 04:41	
Acetone	ug/L	<10.0	20.0	11/07/13 04:41	
Allyl chloride	ug/L	<0.23	4.0	11/07/13 04:41	
Benzene	ug/L	<0.24	1.0	11/07/13 04:41	
Bromobenzene	ug/L	<0.23	1.0	11/07/13 04:41	
Bromochloromethane	ug/L	<0.50	1.0	11/07/13 04:41	
Bromodichloromethane	ug/L	<0.25	1.0	11/07/13 04:41	
Bromoform	ug/L	<2.0	4.0	11/07/13 04:41	
Bromomethane	ug/L	<2.0	4.0	11/07/13 04:41	
Carbon disulfide	ug/L	<0.22	1.0	11/07/13 04:41	
Carbon tetrachloride	ug/L	<0.31	1.0	11/07/13 04:41	
Chlorobenzene	ug/L	<0.24	1.0	11/07/13 04:41	
Chloroethane	ug/L	<0.50	1.0	11/07/13 04:41	
Chloroform	ug/L	<0.27	1.0	11/07/13 04:41	
Chloromethane	ug/L	<2.0	4.0	11/07/13 04:41	
cis-1,2-Dichloroethene	ug/L	<0.23	1.0	11/07/13 04:41	
cis-1,3-Dichloropropene	ug/L	<0.50	4.0	11/07/13 04:41	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

METHOD BLANK: 1569848 Matrix: Water

Associated Lab Samples: 10247959003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.27	1.0	11/07/13 04:41	
Dibromomethane	ug/L	<0.14	4.0	11/07/13 04:41	
Dichlorodifluoromethane	ug/L	<0.40	1.0	11/07/13 04:41	
Dichlorofluoromethane	ug/L	<0.20	1.0	11/07/13 04:41	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	11/07/13 04:41	
Ethylbenzene	ug/L	<0.24	1.0	11/07/13 04:41	
Hexachloro-1,3-butadiene	ug/L	<0.50	1.0	11/07/13 04:41	
Isopropylbenzene (Cumene)	ug/L	<0.50	1.0	11/07/13 04:41	
m&p-Xylene	ug/L	<0.48	2.0	11/07/13 04:41	
Methyl-tert-butyl ether	ug/L	<0.50	1.0	11/07/13 04:41	
Methylene Chloride	ug/L	<2.0	4.0	11/07/13 04:41	
n-Butylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
n-Propylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
Naphthalene	ug/L	<2.0	4.0	11/07/13 04:41	
o-Xylene	ug/L	<0.24	1.0	11/07/13 04:41	
p-Isopropyltoluene	ug/L	<0.50	1.0	11/07/13 04:41	
sec-Butylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
Styrene	ug/L	<0.24	1.0	11/07/13 04:41	
tert-Butylbenzene	ug/L	<0.50	1.0	11/07/13 04:41	
Tetrachloroethene	ug/L	<0.29	1.0	11/07/13 04:41	
Tetrahydrofuran	ug/L	<2.9	10.0	11/07/13 04:41	
Toluene	ug/L	<0.23	1.0	11/07/13 04:41	
trans-1,2-Dichloroethene	ug/L	<0.24	1.0	11/07/13 04:41	
trans-1,3-Dichloropropene	ug/L	<2.0	4.0	11/07/13 04:41	
Trichloroethene	ug/L	<0.12	0.40	11/07/13 04:41	
Trichlorofluoromethane	ug/L	<0.13	1.0	11/07/13 04:41	
Vinyl chloride	ug/L	<0.14	0.40	11/07/13 04:41	
Xylene (Total)	ug/L	<0.72	3.0	11/07/13 04:41	
1,2-Dichloroethane-d4 (S)	%	99	75-125	11/07/13 04:41	
4-Bromofluorobenzene (S)	%	101	75-125	11/07/13 04:41	
Toluene-d8 (S)	%	100	75-125	11/07/13 04:41	

LABORATORY CONTROL SAMPLE: 1569849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	18.7	93	75-125	
1,1,1-Trichloroethane	ug/L	20	18.4	92	75-126	
1,1,2,2-Tetrachloroethane	ug/L	20	19.7	99	75-125	
1,1,2-Trichloroethane	ug/L	20	19.6	98	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	18.8	94	51-139	
1,1-Dichloroethane	ug/L	20	18.7	94	75-125	
1,1-Dichloroethene	ug/L	20	18.8	94	71-126	
1,1-Dichloropropene	ug/L	20	19.5	97	74-125	
1,2,3-Trichlorobenzene	ug/L	20	19.5	98	75-125	
1,2,3-Trichloropropane	ug/L	20	18.3	92	75-125	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

LABORATORY CONTROL SAMPLE: 1569849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	19.1	96	75-125	
1,2,4-Trimethylbenzene	ug/L	20	19.0	95	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	43.2	86	73-125	
1,2-Dibromoethane (EDB)	ug/L	20	17.7	89	75-125	
1,2-Dichlorobenzene	ug/L	20	19.6	98	75-125	
1,2-Dichloroethane	ug/L	20	18.6	93	74-125	
1,2-Dichloropropane	ug/L	20	19.5	98	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.9	95	75-125	
1,3-Dichlorobenzene	ug/L	20	19.5	98	75-125	
1,3-Dichloropropane	ug/L	20	20.1	101	75-125	
1,4-Dichlorobenzene	ug/L	20	19.5	98	75-125	
2,2-Dichloropropane	ug/L	20	15.9	80	67-132	
2-Butanone (MEK)	ug/L	100	96.6	97	68-126	
2-Chlorotoluene	ug/L	20	18.4	92	74-125	
2-Hexanone	ug/L	100	97.1	97	70-125	
4-Chlorotoluene	ug/L	20	18.6	93	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.4	98	72-125	
Acetone	ug/L	100	98.4	98	69-132	
Allyl chloride	ug/L	20	18.1	90	74-125	
Benzene	ug/L	20	19.5	97	75-125	
Bromobenzene	ug/L	20	19.4	97	75-125	
Bromochloromethane	ug/L	20	19.1	95	75-125	
Bromodichloromethane	ug/L	20	17.8	89	75-125	
Bromoform	ug/L	20	17.4	87	75-126	
Bromomethane	ug/L	20	16.3	82	30-150	
Carbon disulfide	ug/L	20	17.3	86	66-126	
Carbon tetrachloride	ug/L	20	17.4	87	74-127	
Chlorobenzene	ug/L	20	18.3	91	75-125	
Chloroethane	ug/L	20	20.3	101	68-132	
Chloroform	ug/L	20	18.0	90	75-125	
Chloromethane	ug/L	20	17.3	86	61-129	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.0	95	75-125	
Dibromochloromethane	ug/L	20	18.0	90	75-125	
Dibromomethane	ug/L	20	18.4	92	75-125	
Dichlorodifluoromethane	ug/L	20	17.0	85	49-137	
Dichlorofluoromethane	ug/L	20	16.6	83	66-133	
Diethyl ether (Ethyl ether)	ug/L	20	17.8	89	75-125	
Ethylbenzene	ug/L	20	18.8	94	75-125	
Hexachloro-1,3-butadiene	ug/L	20	17.2	86	69-127	
Isopropylbenzene (Cumene)	ug/L	20	19.3	97	75-125	
m&p-Xylene	ug/L	40	38.8	97	75-125	
Methyl-tert-butyl ether	ug/L	20	20.0	100	74-126	
Methylene Chloride	ug/L	20	18.7	93	75-125	
n-Butylbenzene	ug/L	20	18.8	94	72-126	
n-Propylbenzene	ug/L	20	19.4	97	73-125	
Naphthalene	ug/L	20	19.5	97	75-125	
o-Xylene	ug/L	20	19.0	95	75-125	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

LABORATORY CONTROL SAMPLE: 1569849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	19.1	95	74-125	
sec-Butylbenzene	ug/L	20	19.5	98	73-125	
Styrene	ug/L	20	20.0	100	75-125	
tert-Butylbenzene	ug/L	20	18.8	94	73-125	
Tetrachloroethene	ug/L	20	18.7	93	75-125	
Tetrahydrofuran	ug/L	200	195	98	71-125	
Toluene	ug/L	20	19.3	97	75-125	
trans-1,2-Dichloroethene	ug/L	20	17.5	87	74-125	
trans-1,3-Dichloropropene	ug/L	20	18.8	94	75-125	
Trichloroethene	ug/L	20	19.1	96	75-125	
Trichlorofluoromethane	ug/L	20	18.2	91	69-129	
Vinyl chloride	ug/L	20	18.9	95	70-128	
Xylene (Total)	ug/L	60	57.8	96	75-125	
1,2-Dichloroethane-d4 (S)	%			100	75-125	
4-Bromofluorobenzene (S)	%			101	75-125	
Toluene-d8 (S)	%			103	75-125	

MATRIX SPIKE SAMPLE: 1569854

Parameter	Units	10247974001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	17.4	87	75-125	
1,1,1-Trichloroethane	ug/L	12.2	20	28.9	83	75-136	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.3	97	66-131	
1,1,2-Trichloroethane	ug/L	ND	20	19.1	95	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	18.6	93	75-150	
1,1-Dichloroethane	ug/L	ND	20	20.4	102	75-131	
1,1-Dichloroethene	ug/L	ND	20	18.5	93	75-138	
1,1-Dichloropropene	ug/L	ND	20	17.6	88	75-136	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.6	88	75-125	
1,2,3-Trichloropropane	ug/L	ND	20	18.3	91	71-126	
1,2,4-Trichlorobenzene	ug/L	ND	20	17.0	85	75-125	
1,2,4-Trimethylbenzene	ug/L	ND	20	16.0	80	70-126	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	43.5	87	69-127	
1,2-Dibromoethane (EDB)	ug/L	ND	20	17.0	85	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	17.4	87	75-125	
1,2-Dichloroethane	ug/L	ND	20	18.2	91	74-128	
1,2-Dichloropropane	ug/L	ND	20	19.1	96	75-125	
1,3,5-Trimethylbenzene	ug/L	ND	20	16.0	80	72-126	
1,3-Dichlorobenzene	ug/L	ND	20	17.1	86	75-125	
1,3-Dichloropropane	ug/L	ND	20	19.2	96	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	17.0	85	75-125	
2,2-Dichloropropane	ug/L	ND	20	13.7	69	71-143	M1
2-Butanone (MEK)	ug/L	ND	100	97.1	97	64-125	
2-Chlorotoluene	ug/L	ND	20	15.9	80	74-125	
2-Hexanone	ug/L	ND	100	96.5	97	67-125	
4-Chlorotoluene	ug/L	ND	20	16.0	80	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	97.2	97	69-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

MATRIX SPIKE SAMPLE: 1569854

Parameter	Units	10247974001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	ND	100	104	104	57-135	
Allyl chloride	ug/L	ND	20	18.3	92	73-134	
Benzene	ug/L	ND	20	18.9	95	70-135	
Bromobenzene	ug/L	ND	20	17.6	88	75-125	
Bromochloromethane	ug/L	ND	20	18.7	93	75-125	
Bromodichloromethane	ug/L	ND	20	17.5	87	75-125	
Bromoform	ug/L	ND	20	16.3	82	68-133	
Bromomethane	ug/L	ND	20	16.1	79	56-150	
Carbon disulfide	ug/L	ND	20	15.6	78	66-135	
Carbon tetrachloride	ug/L	ND	20	15.9	80	75-137	
Chlorobenzene	ug/L	ND	20	16.2	81	75-125	
Chloroethane	ug/L	ND	20	18.3	92	64-150	
Chloroform	ug/L	ND	20	17.9	89	75-127	
Chloromethane	ug/L	ND	20	16.3	82	65-140	
cis-1,2-Dichloroethene	ug/L	ND	20	18.3	91	75-129	
cis-1,3-Dichloropropene	ug/L	ND	20	17.6	88	75-125	
Dibromochloromethane	ug/L	ND	20	17.0	85	75-125	
Dibromomethane	ug/L	ND	20	17.8	89	75-125	
Dichlorodifluoromethane	ug/L	ND	20	18.2	91	70-150	
Dichlorofluoromethane	ug/L	ND	20	17.5	88	69-142	
Diethyl ether (Ethyl ether)	ug/L	ND	20	16.9	85	75-125	
Ethylbenzene	ug/L	ND	20	16.1	81	75-125	
Hexachloro-1,3-butadiene	ug/L	ND	20	13.8	69	75-135	M1
Isopropylbenzene (Cumene)	ug/L	ND	20	15.8	79	75-125	
m&p-Xylene	ug/L	ND	40	33.3	83	75-125	
Methyl-tert-butyl ether	ug/L	ND	20	19.7	99	70-132	
Methylene Chloride	ug/L	ND	20	19.1	95	73-125	
n-Butylbenzene	ug/L	ND	20	14.8	74	75-130	M1
n-Propylbenzene	ug/L	ND	20	15.7	79	75-128	
Naphthalene	ug/L	ND	20	18.7	94	73-126	
o-Xylene	ug/L	ND	20	16.6	83	75-125	
p-Isopropyltoluene	ug/L	ND	20	15.4	77	75-125	
sec-Butylbenzene	ug/L	ND	20	15.6	78	75-126	
Styrene	ug/L	ND	20	17.4	87	52-137	
tert-Butylbenzene	ug/L	ND	20	15.5	77	75-125	
Tetrachloroethene	ug/L	ND	20	15.4	77	75-130	
Tetrahydrofuran	ug/L	ND	200	203	101	69-125	
Toluene	ug/L	ND	20	17.4	87	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	17.1	86	75-135	
trans-1,3-Dichloropropene	ug/L	ND	20	17.4	87	75-125	
Trichloroethene	ug/L	ND	20	17.5	88	75-129	
Trichlorofluoromethane	ug/L	ND	20	16.4	82	75-150	
Vinyl chloride	ug/L	ND	20	17.5	87	75-147	
Xylene (Total)	ug/L	ND	60	49.9	83	75-125	
1,2-Dichloroethane-d4 (S)	%				101	75-125	
4-Bromofluorobenzene (S)	%				102	75-125	
Toluene-d8 (S)	%				102	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

SAMPLE DUPLICATE: 1569855

Parameter	Units	10247974002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	<0.50		30	
1,1,1-Trichloroethane	ug/L	12.3	8.8	33	30	D6
1,1,2,2-Tetrachloroethane	ug/L	ND	<0.13		30	
1,1,2-Trichloroethane	ug/L	ND	<0.16		30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	<0.33		30	
1,1-Dichloroethane	ug/L	ND	<0.50		30	
1,1-Dichloroethene	ug/L	ND	<0.24		30	
1,1-Dichloropropene	ug/L	ND	<0.25		30	
1,2,3-Trichlorobenzene	ug/L	ND	<0.50		30	
1,2,3-Trichloropropane	ug/L	ND	<0.54		30	
1,2,4-Trichlorobenzene	ug/L	ND	<0.50		30	
1,2,4-Trimethylbenzene	ug/L	ND	<0.50		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	<2.0		30	
1,2-Dibromoethane (EDB)	ug/L	ND	<0.23		30	
1,2-Dichlorobenzene	ug/L	ND	<0.092		30	
1,2-Dichloroethane	ug/L	ND	<0.22		30	
1,2-Dichloropropane	ug/L	ND	<0.20		30	
1,3,5-Trimethylbenzene	ug/L	ND	<0.50		30	
1,3-Dichlorobenzene	ug/L	ND	<0.50		30	
1,3-Dichloropropane	ug/L	ND	<0.50		30	
1,4-Dichlorobenzene	ug/L	ND	<0.50		30	
2,2-Dichloropropane	ug/L	ND	<0.50		30	
2-Butanone (MEK)	ug/L	ND	<2.5		30	
2-Chlorotoluene	ug/L	ND	<0.50		30	
2-Hexanone	ug/L	ND	<2.5		30	
4-Chlorotoluene	ug/L	ND	<0.23		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	<2.5		30	
Acetone	ug/L	ND	<10.0		30	
Allyl chloride	ug/L	ND	<0.23		30	
Benzene	ug/L	ND	<0.24		30	
Bromobenzene	ug/L	ND	<0.23		30	
Bromochloromethane	ug/L	ND	<0.50		30	
Bromodichloromethane	ug/L	ND	<0.25		30	
Bromoform	ug/L	ND	<2.0		30	
Bromomethane	ug/L	ND	<2.0		30	
Carbon disulfide	ug/L	ND	<0.22		30	
Carbon tetrachloride	ug/L	ND	<0.31		30	
Chlorobenzene	ug/L	ND	<0.24		30	
Chloroethane	ug/L	ND	<0.50		30	
Chloroform	ug/L	ND	<0.27		30	
Chloromethane	ug/L	ND	<2.0		30	
cis-1,2-Dichloroethene	ug/L	ND	<0.23		30	
cis-1,3-Dichloropropene	ug/L	ND	<0.50		30	
Dibromochloromethane	ug/L	ND	<0.27		30	
Dibromomethane	ug/L	ND	<0.14		30	
Dichlorodifluoromethane	ug/L	ND	<0.40		30	
Dichlorofluoromethane	ug/L	ND	<0.20		30	
Diethyl ether (Ethyl ether)	ug/L	ND	<2.0		30	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

SAMPLE DUPLICATE: 1569855

Parameter	Units	10247974002 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/L	ND	<0.24		30	
Hexachloro-1,3-butadiene	ug/L	ND	<0.50		30	
Isopropylbenzene (Cumene)	ug/L	ND	<0.50		30	
m&p-Xylene	ug/L	ND	<0.48		30	
Methyl-tert-butyl ether	ug/L	ND	<0.50		30	
Methylene Chloride	ug/L	ND	<2.0		30	
n-Butylbenzene	ug/L	ND	<0.50		30	
n-Propylbenzene	ug/L	ND	<0.50		30	
Naphthalene	ug/L	ND	<2.0		30	
o-Xylene	ug/L	ND	<0.24		30	
p-Isopropyltoluene	ug/L	ND	<0.50		30	
sec-Butylbenzene	ug/L	ND	<0.50		30	
Styrene	ug/L	ND	<0.24		30	
tert-Butylbenzene	ug/L	ND	<0.50		30	
Tetrachloroethene	ug/L	ND	0.46J		30	
Tetrahydrofuran	ug/L	ND	<2.9		30	
Toluene	ug/L	ND	<0.23		30	
trans-1,2-Dichloroethene	ug/L	ND	<0.24		30	
trans-1,3-Dichloropropene	ug/L	ND	<2.0		30	
Trichloroethene	ug/L	ND	<0.12		30	
Trichlorofluoromethane	ug/L	ND	<0.13		30	
Vinyl chloride	ug/L	ND	<0.14		30	
Xylene (Total)	ug/L	ND	<0.72		30	
1,2-Dichloroethane-d4 (S)	%	98	97	.5		
4-Bromofluorobenzene (S)	%	102	103	.2		
Toluene-d8 (S)	%	100	100	.1		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

QC Batch: OEXT/23567 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10247959001, 10247959002, 10247959003

METHOD BLANK: 1570062 Matrix: Water
Associated Lab Samples: 10247959001, 10247959002, 10247959003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0028	0.010	11/07/13 01:16	
4-Bromofluorobenzene (S)	%	98	70-130	11/07/13 01:16	

LABORATORY CONTROL SAMPLE: 1570063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.12	110	60-140	
4-Bromofluorobenzene (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1570064 1570065

Parameter	Units	10247969004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	0.014	.1	.11	0.11	0.11	91	94	60-140	4	20	
4-Bromofluorobenzene (S)	%						46	37	70-130			C0,S0

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1821-00 TARR VANCOUVER-GWM
Pace Project No.: 10247959

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10247959001	**MW-1**	EPA 8011	OEXT/23567	EPA 8011	GCSV/12378
10247959002	**MW-4**	EPA 8011	OEXT/23567	EPA 8011	GCSV/12378
10247959003	**MW-5**	EPA 8011	OEXT/23567	EPA 8011	GCSV/12378
10247959001	**MW-1**	NWTPH-Gx/8021	GCV/11437		
10247959002	**MW-4**	NWTPH-Gx/8021	GCV/11437		
10247959003	**MW-5**	NWTPH-Gx/8021	GCV/11437		
10247959001	**MW-1**	EPA 8260	MSV/25513		
10247959002	**MW-4**	EPA 8260	MSV/25513		
10247959003	**MW-5**	EPA 8260	MSV/25514		

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

CHAIN OF CUSTODY RECORD

157

10247959

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: John Foxwell
Analytical Lab: Pace Analytical
Project Name: Tarr Vancouver- GWM
Report To: jfoxwell@ashcreekassociates.com
Project Number: 1821-00
Page: 1 of 1
Sampler Name: Carmen Owens

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	None	Other	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: VOCs (8260B)	EDB (8011)	TPH-G (NWTPH-Gx)	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
MW-1	10/31/13	930	9	X			X		X						X						X	X	X		X		
MW-4	10/31/13	1020	9	X			X		X						X						X	X	X		X		
MW-5	10/31/13	1130	9	X			X		X						X						X	X	X		X		

604
002
003

Special Instructions:

Method of Shipment:

Laboratory Comments:
Temperature Upon Receipt: 2.7
VOCs Free of Headspace? Y N

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Apex	10-31-13	1400	IH / PACE	11-01-13	0920
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

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: Ash Creek Associates, Inc. **Project #:** WO# : 10247959

10247959

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

Tracking Number: 7970 4949 8779

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): 2.3 **Cooler Temp Corrected (°C):** 2.7 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** +0.4 **Date and Initials of Person Examining Contents:** IH 11-1-13

				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
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	Sample #
Exceptions: VOA, coliform, TOC, Oil and Grease, WI-DRO (water)	☒ Yes	☐ No		Initial when completed: IH 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):				

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 11/4/13.

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
Minneapolis, MN 55414
(612)607-1700

November 26, 2013

John Foxwell
Apex Companies, LLC
3015 SW First Ave
Portland, OR 97201

RE: Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 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.

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: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Dept of Environmental Management #40770
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 5 #WD-15J
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
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

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

SAMPLE ANALYTE COUNT

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10249068001	**MW-4**	EPA 6020	AJM	1	PASI-M

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

PROJECT NARRATIVE

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: Ash Creek Associates OR
Date: November 26, 2013

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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

ANALYTICAL RESULTS

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Sample: MW-4 **Lab ID: 10249068001** Collected: 11/11/13 11:00 Received: 11/13/13 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020							
Lead	**36.8**	ug/L	0.10	1	11/18/13 11:24	11/20/13 19:29	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

QC Batch: MPRP/43310
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Associated Lab Samples: 10249068001

METHOD BLANK: 1577337
Matrix: Water
Associated Lab Samples: 10249068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	0.10	11/20/13 18:46	

LABORATORY CONTROL SAMPLE: 1577338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	85.5	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1578854 1578855

Parameter	Units	10250491001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	ug/L	0.22	80	80	83.0	83.0	103	104	75-125	.1	

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

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.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1821-00.006 TARR VANCOUVER-GWM
Pace Project No.: 10249068

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10249068001	**MW-4**	EPA 3020	MPRP/43310	EPA 6020	ICPM/18497

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

CHAIN OF CUSTODY RECORD

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: John Foxwell
Project Name: Tarr Vancouver- GWM
Project Number: 1821-00.006
Sampler Name: Carmen Owens

Analytical Lab: Pace Analytical
Report To: jfoxwell@ashcreekassociates.com
Page: 1 of 1

10249068

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3	HCl	NaOH	H2SO4 Plastic	H2SO4 Glass	None	Other	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: Total Lead	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
MW-4	11/11/13	1100	1	X			X	X							X						X		X		001

Special Instructions:

Method of Shipment:

Laboratory Comments:
Temperature Upon Receipt: 1.8
VOCs Free of Headspace? Y N

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Apex	11-12-13	0800	IH / PACE	11/13/13	09:25
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Ash Creek Associates, Inc.

Project #: WO#:10249068

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

Tracking Number: 7991 3456 6651

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): 1.4 Cooler Temp Corrected (°C): 1.8 Biological Tissue Frozen? ☐Yes ☐No ☑N/A

Temp should be above freezing to 6°C Correction Factor: +0.4 Date and Initials of Person Examining Contents: IH 11-13-13

				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
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	Sample # 1 1
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) DOC	☐Yes	☑No		Initial when completed: IH 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):				

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: EVM 2088 Date: 11/13/13

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
Minneapolis, MN 55414
(612)607-1700

March 14, 2014

John Foxwell
Apex Companies, LLC
3015 SW First Ave
Portland, OR 97201

RE: Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2014. 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.

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: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
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 #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

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SAMPLE SUMMARY

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10259072001	**MW-5**	Water	02/24/14 16:15	02/28/14 09:30
10259072002	**MW-1**	Water	02/24/14 17:00	02/28/14 09:30
10259072003	**MW-4**	Water	02/24/14 17:15	02/28/14 09:30

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10259072001	**MW-5**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	72	PASI-M
10259072002	**MW-1**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	72	PASI-M
10259072003	**MW-4**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 8260	LPM	72	PASI-M

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/24505

S0: Surrogate recovery outside laboratory control limits.

- LCS (Lab ID: 1633701)
  - 4-Bromofluorobenzene (S)
- LCSD (Lab ID: 1633702)
  - 4-Bromofluorobenzene (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- BLANK (Lab ID: 1633700)
  - 4-Bromofluorobenzene (S)
- MW-1 (Lab ID: 10259072002)
  - 4-Bromofluorobenzene (S)
- MW-4 (Lab ID: 10259072003)
  - 4-Bromofluorobenzene (S)
- MW-5 (Lab ID: 10259072001)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: APEX Companies
Date: March 14, 2014

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24505

1M: high surr due to second analysis of failing curve, confirmed with initial run

- BLANK (Lab ID: 1633700)
  - 4-Bromofluorobenzene (S)
- LCS (Lab ID: 1633701)
  - 4-Bromofluorobenzene (S)
- LCSD (Lab ID: 1633702)
  - 4-Bromofluorobenzene (S)
- MW-1 (Lab ID: 10259072002)
  - 4-Bromofluorobenzene (S)
- MW-5 (Lab ID: 10259072001)
  - 4-Bromofluorobenzene (S)

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **NWTPH-Gx/8021**
Description: NWTPH-Gx GCV
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for NWTPH-Gx/8021. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: APEX Companies
Date: March 14, 2014

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: APEX Companies
Date: March 14, 2014

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8260**
Description: 8260 VOC
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/26462

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10258825016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1633048)
  - Benzene
- MSD (Lab ID: 1633049)
  - Benzene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1633049)
  - Bromomethane

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-5 **Lab ID: 10259072001** Collected: 02/24/14 16:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0098	0.0027	1	03/05/14 11:24	03/06/14 16:36	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	257	%.	70-130		1	03/05/14 11:24	03/06/14 16:36	460-00-4	1M,S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		03/03/14 16:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%.	70-125		1		03/03/14 16:04	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:25	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:25	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:25	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:25	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:25	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:25	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:25	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:25	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:25	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:25	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:25	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:25	75-15-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-5 **Lab ID: 10259072001** Collected: 02/24/14 16:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:25	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:25	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:25	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:25	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:25	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:25	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	98-82-8	
Methyl-tert-butyl ether	**2.5**	ug/L	1.0	0.50	1		03/03/14 16:25	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:25	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:25	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	108-88-3	
Trichloroethene	**0.13J**	ug/L	0.40	0.13	1		03/03/14 16:25	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:25	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:25	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		03/03/14 16:25	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%.	75-125		1		03/03/14 16:25	17060-07-0	
Toluene-d8 (S)	98	%.	75-125		1		03/03/14 16:25	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125		1		03/03/14 16:25	460-00-4	

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0096	0.0027	1	03/05/14 11:24	03/06/14 17:02	106-93-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
Surrogates									
4-Bromofluorobenzene (S)	165	%.	70-130		1	03/05/14 11:24	03/06/14 17:02	460-00-4	1M,S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**134**	ug/L	100	50.0	1		03/03/14 15:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	70-125		1		03/03/14 15:04	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:40	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:40	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:40	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:40	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:40	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	120-82-1	
1,2,4-Trimethylbenzene	**9.6**	ug/L	1.0	0.50	1		03/03/14 16:40	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:40	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:40	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:40	78-87-5	
1,3,5-Trimethylbenzene	**0.77J**	ug/L	1.0	0.50	1		03/03/14 16:40	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:40	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:40	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:40	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:40	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:40	56-23-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:40	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:40	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:40	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:40	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:40	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	60-29-7	
Ethylbenzene	**1.0**	ug/L	1.0	0.24	1		03/03/14 16:40	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	87-68-3	
Isopropylbenzene (Cumene)	**0.56J**	ug/L	1.0	0.50	1		03/03/14 16:40	98-82-8	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:40	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:40	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	108-88-3	
Trichloroethene	**<0.13**	ug/L	0.40	0.13	1		03/03/14 16:40	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:40	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:40	75-01-4	
Xylene (Total)	**8.4**	ug/L	3.0	0.72	1		03/03/14 16:40	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	104-51-8	
n-Propylbenzene	**0.97J**	ug/L	1.0	0.50	1		03/03/14 16:40	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%.	75-125		1		03/03/14 16:40	17060-07-0	
Toluene-d8 (S)	101	%.	75-125		1		03/03/14 16:40	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/03/14 16:40	460-00-4	

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0097	0.0027	1	03/05/14 11:24	03/06/14 17:29	106-93-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
Surrogates									
4-Bromofluorobenzene (S)	141	%.	70-130		1	03/05/14 11:24	03/06/14 17:29	460-00-4	S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		03/03/14 15:24		
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	70-125		1		03/03/14 15:24	98-08-8	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead	**8.7**	ug/L	0.10	0.046	1	03/11/14 15:27	03/12/14 11:11	7439-92-1	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead, Dissolved	**6.3**	ug/L	0.10	0.046	1	03/11/14 14:12	03/11/14 19:13	7439-92-1	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:55	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:55	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:55	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:55	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:55	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:55	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:55	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:55	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:55	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:55	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	108-86-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:55	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:55	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:55	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:55	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:55	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:55	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:55	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:55	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	98-82-8	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:55	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:55	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	108-88-3	
Trichloroethene	**<0.13**	ug/L	0.40	0.13	1		03/03/14 16:55	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:55	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:55	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		03/03/14 16:55	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%.	75-125		1		03/03/14 16:55	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1		03/03/14 16:55	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/03/14 16:55	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: GCV/11741 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1632563 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	03/03/14 13:44	
a,a,a-Trifluorotoluene (S)	%.	104	70-125	03/03/14 13:44	

LABORATORY CONTROL SAMPLE & LCSD: 1632564 1632565

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1030	1010	103	101	75-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				118	111	70-125			

MATRIX SPIKE SAMPLE: 1632908

Parameter	Units	10259072001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	<50.0	1000	1030	103	52-150	
a,a,a-Trifluorotoluene (S)	%.				113	70-125	

SAMPLE DUPLICATE: 1632909

Parameter	Units	10259072003 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	<50.0	<50.0		30	
a,a,a-Trifluorotoluene (S)	%.	102	99	3		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MPRP/44684 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10259072003

METHOD BLANK: 1635895 Matrix: Water
Associated Lab Samples: 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<0.046	0.10	03/12/14 10:57	

LABORATORY CONTROL SAMPLE: 1635896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	81.2	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636610 1636611

Parameter	Units	10259370001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	80	80	82.8	81.2	103	101	75-125	2	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MPRP/44699
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 10259072003

METHOD BLANK: 1636447 Matrix: Water
Associated Lab Samples: 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead, Dissolved	ug/L	<0.046	0.10	03/11/14 18:59	

LABORATORY CONTROL SAMPLE: 1636448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	80	77.3	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636449 1636450

Parameter	Units	10259072003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead, Dissolved	ug/L	6.3	80	80	84.5	83.8	98	97	75-125	.9	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MSV/26462 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1632466 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	1.0	03/03/14 10:43	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	03/03/14 10:43	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	4.0	03/03/14 10:43	
1,1-Dichloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1-Dichloroethene	ug/L	<0.24	1.0	03/03/14 10:43	
1,1-Dichloropropene	ug/L	<0.25	1.0	03/03/14 10:43	
1,2,3-Trichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2,3-Trichloropropane	ug/L	<0.54	4.0	03/03/14 10:43	
1,2,4-Trichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	03/03/14 10:43	
1,2-Dibromoethane (EDB)	ug/L	<0.23	1.0	03/03/14 10:43	
1,2-Dichlorobenzene	ug/L	<0.092	1.0	03/03/14 10:43	
1,2-Dichloroethane	ug/L	<0.22	1.0	03/03/14 10:43	
1,2-Dichloropropane	ug/L	<0.20	4.0	03/03/14 10:43	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,3-Dichloropropane	ug/L	<0.50	1.0	03/03/14 10:43	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
2,2-Dichloropropane	ug/L	<0.50	4.0	03/03/14 10:43	
2-Butanone (MEK)	ug/L	<2.5	5.0	03/03/14 10:43	
2-Chlorotoluene	ug/L	<0.50	1.0	03/03/14 10:43	
2-Hexanone	ug/L	<2.5	5.0	03/03/14 10:43	
4-Chlorotoluene	ug/L	<0.23	1.0	03/03/14 10:43	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	03/03/14 10:43	
Acetone	ug/L	<10.0	20.0	03/03/14 10:43	
Allyl chloride	ug/L	<0.23	4.0	03/03/14 10:43	
Benzene	ug/L	<0.24	1.0	03/03/14 10:43	
Bromobenzene	ug/L	<0.23	1.0	03/03/14 10:43	
Bromochloromethane	ug/L	<0.50	1.0	03/03/14 10:43	
Bromodichloromethane	ug/L	<0.25	1.0	03/03/14 10:43	
Bromoform	ug/L	<2.0	4.0	03/03/14 10:43	
Bromomethane	ug/L	<2.0	4.0	03/03/14 10:43	
Carbon disulfide	ug/L	<0.22	1.0	03/03/14 10:43	
Carbon tetrachloride	ug/L	<0.31	1.0	03/03/14 10:43	
Chlorobenzene	ug/L	<0.24	1.0	03/03/14 10:43	
Chloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
Chloroform	ug/L	<0.27	1.0	03/03/14 10:43	
Chloromethane	ug/L	<2.0	4.0	03/03/14 10:43	
cis-1,2-Dichloroethene	ug/L	<0.23	1.0	03/03/14 10:43	
cis-1,3-Dichloropropene	ug/L	<0.50	4.0	03/03/14 10:43	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

METHOD BLANK: 1632466 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.27	1.0	03/03/14 10:43	
Dibromomethane	ug/L	<0.38	4.0	03/03/14 10:43	
Dichlorodifluoromethane	ug/L	<0.40	1.0	03/03/14 10:43	
Dichlorofluoromethane	ug/L	<0.20	1.0	03/03/14 10:43	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	03/03/14 10:43	
Ethylbenzene	ug/L	<0.24	1.0	03/03/14 10:43	
Hexachloro-1,3-butadiene	ug/L	<0.50	4.0	03/03/14 10:43	
Isopropylbenzene (Cumene)	ug/L	<0.50	1.0	03/03/14 10:43	
Methyl-tert-butyl ether	ug/L	<0.50	1.0	03/03/14 10:43	
Methylene Chloride	ug/L	<2.0	4.0	03/03/14 10:43	
n-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
n-Propylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Naphthalene	ug/L	<2.0	4.0	03/03/14 10:43	
p-Isopropyltoluene	ug/L	<0.50	1.0	03/03/14 10:43	
sec-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Styrene	ug/L	<0.24	1.0	03/03/14 10:43	
tert-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Tetrachloroethene	ug/L	<0.29	1.0	03/03/14 10:43	
Tetrahydrofuran	ug/L	<2.9	10.0	03/03/14 10:43	
Toluene	ug/L	<0.23	1.0	03/03/14 10:43	
trans-1,2-Dichloroethene	ug/L	<0.24	1.0	03/03/14 10:43	
trans-1,3-Dichloropropene	ug/L	<2.0	4.0	03/03/14 10:43	
Trichloroethene	ug/L	<0.13	0.40	03/03/14 10:43	
Trichlorofluoromethane	ug/L	<0.13	1.0	03/03/14 10:43	
Vinyl chloride	ug/L	<0.14	0.40	03/03/14 10:43	
Xylene (Total)	ug/L	<0.72	3.0	03/03/14 10:43	
1,2-Dichloroethane-d4 (S)	%.	98	75-125	03/03/14 10:43	
4-Bromofluorobenzene (S)	%.	100	75-125	03/03/14 10:43	
Toluene-d8 (S)	%.	99	75-125	03/03/14 10:43	

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	18.1	91	75-125	
1,1,1-Trichloroethane	ug/L	20	17.4	87	73-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.4	87	74-125	
1,1,2-Trichloroethane	ug/L	20	18.0	90	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	17.1	86	56-133	
1,1-Dichloroethane	ug/L	20	17.2	86	75-125	
1,1-Dichloroethene	ug/L	20	15.6	78	70-125	
1,1-Dichloropropene	ug/L	20	16.8	84	73-125	
1,2,3-Trichlorobenzene	ug/L	20	18.3	91	75-125	
1,2,3-Trichloropropane	ug/L	20	19.3	96	75-125	
1,2,4-Trichlorobenzene	ug/L	20	19.5	98	75-125	
1,2,4-Trimethylbenzene	ug/L	20	17.8	89	75-125	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	70-125	
1,2-Dibromoethane (EDB)	ug/L	20	18.1	90	75-125	
1,2-Dichlorobenzene	ug/L	20	17.7	88	75-125	
1,2-Dichloroethane	ug/L	20	18.2	91	75-125	
1,2-Dichloropropane	ug/L	20	18.6	93	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.0	90	75-125	
1,3-Dichlorobenzene	ug/L	20	18.1	91	75-125	
1,3-Dichloropropane	ug/L	20	18.8	94	75-125	
1,4-Dichlorobenzene	ug/L	20	18.4	92	75-125	
2,2-Dichloropropane	ug/L	20	18.0	90	66-130	
2-Butanone (MEK)	ug/L	100	83.2	83	64-126	
2-Chlorotoluene	ug/L	20	17.6	88	73-125	
2-Hexanone	ug/L	100	89.9	90	69-127	
4-Chlorotoluene	ug/L	20	17.9	89	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.7	92	71-125	
Acetone	ug/L	100	94.3	94	66-131	
Allyl chloride	ug/L	20	17.8	89	70-129	
Benzene	ug/L	20	16.6	83	75-125	
Bromobenzene	ug/L	20	17.7	88	75-125	
Bromochloromethane	ug/L	20	17.8	89	75-125	
Bromodichloromethane	ug/L	20	17.6	88	75-125	
Bromoform	ug/L	20	18.2	91	70-125	
Bromomethane	ug/L	20	20.4	102	30-150	
Carbon disulfide	ug/L	20	13.1	65	60-125	
Carbon tetrachloride	ug/L	20	17.4	87	68-129	
Chlorobenzene	ug/L	20	18.0	90	75-125	
Chloroethane	ug/L	20	18.9	95	68-133	
Chloroform	ug/L	20	17.2	86	75-125	
Chloromethane	ug/L	20	17.5	87	57-140	
cis-1,2-Dichloroethene	ug/L	20	16.7	84	75-125	
cis-1,3-Dichloropropene	ug/L	20	18.8	94	75-125	
Dibromochloromethane	ug/L	20	18.5	92	75-125	
Dibromomethane	ug/L	20	18.9	95	75-125	
Dichlorodifluoromethane	ug/L	20	18.2	91	50-134	
Dichlorofluoromethane	ug/L	20	17.5	88	74-125	
Diethyl ether (Ethyl ether)	ug/L	20	16.7	83	75-125	
Ethylbenzene	ug/L	20	17.7	88	75-125	
Hexachloro-1,3-butadiene	ug/L	20	20.4	102	74-128	
Isopropylbenzene (Cumene)	ug/L	20	18.2	91	73-125	
Methyl-tert-butyl ether	ug/L	20	17.3	86	75-125	
Methylene Chloride	ug/L	20	17.4	87	75-125	
n-Butylbenzene	ug/L	20	18.3	91	73-125	
n-Propylbenzene	ug/L	20	18.0	90	72-125	
Naphthalene	ug/L	20	18.1	90	74-125	
p-Isopropyltoluene	ug/L	20	18.1	90	74-125	
sec-Butylbenzene	ug/L	20	18.1	91	74-125	
Styrene	ug/L	20	18.2	91	75-125	
tert-Butylbenzene	ug/L	20	17.8	89	74-125	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	20	18.5	93	71-125	
Tetrahydrofuran	ug/L	200	187	94	70-125	
Toluene	ug/L	20	18.0	90	75-125	
trans-1,2-Dichloroethene	ug/L	20	15.9	80	73-125	
trans-1,3-Dichloropropene	ug/L	20	18.6	93	75-125	
Trichloroethene	ug/L	20	18.0	90	75-125	
Trichlorofluoromethane	ug/L	20	19.0	95	70-128	
Vinyl chloride	ug/L	20	18.2	91	70-130	
Xylene (Total)	ug/L	60	53.7	89	75-125	
1,2-Dichloroethane-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633048 1633049

Parameter	Units	10258825016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	96.8	93.4	97	93	74-131	4	30	
1,1,1-Trichloroethane	ug/L	ND	100	100	109	99.8	109	100	73-139	9	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	96.7	98.0	97	98	72-125	1	30	
1,1,2-Trichloroethane	ug/L	ND	100	100	96.1	95.6	96	96	75-125	.5	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	100	100	103	105	103	105	68-150	1	30	
1,1-Dichloroethane	ug/L	ND	100	100	102	96.3	102	96	73-132	5	30	
1,1-Dichloroethene	ug/L	ND	100	100	90.9	90.3	91	90	71-142	.6	30	
1,1-Dichloropropene	ug/L	ND	100	100	103	93.6	103	94	73-139	10	30	
1,2,3-Trichlorobenzene	ug/L	ND	100	100	95.9	95.6	96	96	70-129	.3	30	
1,2,3-Trichloropropane	ug/L	ND	100	100	107	108	107	108	74-125	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	100	100	98.1	101	98	101	70-129	3	30	
1,2,4-Trimethylbenzene	ug/L	118	100	100	218	218	100	100	72-136	.3	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	250	250	240	225	96	90	66-127	6	30	
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	98.8	98.6	99	99	75-125	.2	30	
1,2-Dichlorobenzene	ug/L	ND	100	100	97.7	98.3	98	98	75-125	.6	30	
1,2-Dichloroethane	ug/L	7.5	100	100	119	114	112	107	68-128	4	30	
1,2-Dichloropropane	ug/L	ND	100	100	99.3	95.3	99	95	74-131	4	30	
1,3,5-Trimethylbenzene	ug/L	41.3	100	100	139	143	98	101	75-131	3	30	
1,3-Dichlorobenzene	ug/L	ND	100	100	96.9	99.5	97	99	73-125	3	30	
1,3-Dichloropropane	ug/L	ND	100	100	98.6	98.3	99	98	75-125	.2	30	
1,4-Dichlorobenzene	ug/L	ND	100	100	97.7	99.9	98	100	73-125	2	30	
2,2-Dichloropropane	ug/L	ND	100	100	101	96.4	101	96	58-150	5	30	
2-Butanone (MEK)	ug/L	ND	500	500	487	436	97	87	56-140	11	30	
2-Chlorotoluene	ug/L	ND	100	100	105	106	105	106	70-130	1	30	
2-Hexanone	ug/L	ND	500	500	452	454	90	91	63-132	.3	30	
4-Chlorotoluene	ug/L	ND	100	100	102	103	102	103	73-126	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	500	500	462	458	92	92	69-128	.8	30	
Acetone	ug/L	ND	500	500	573	611	115	122	57-143	6	30	
Allyl chloride	ug/L	ND	100	100	89.6	86.6	90	87	65-146	3	30	
Benzene	ug/L	743	100	100	876	815	133	72	75-129	7	30	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633048 1633049

Parameter	Units	10258825016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromobenzene	ug/L	ND	100	100	96.2	95.3	96	95	74-125	.9	30	
Bromochloromethane	ug/L	ND	100	100	101	101	101	101	75-126	.3	30	
Bromodichloromethane	ug/L	ND	100	100	98.5	97.3	99	97	75-128	1	30	
Bromoform	ug/L	ND	100	100	83.4	83.3	83	83	66-130	.1	30	
Bromomethane	ug/L	ND	100	100	39.3	54.8	39	55	30-150	33	30	R1
Carbon disulfide	ug/L	ND	100	100	76.0	73.0	75	72	56-140	4	30	
Carbon tetrachloride	ug/L	ND	100	100	103	97.6	103	98	69-148	5	30	
Chlorobenzene	ug/L	ND	100	100	99.2	99.6	99	100	75-125	.4	30	
Chloroethane	ug/L	ND	100	100	110	106	110	106	71-143	4	30	
Chloroform	ug/L	ND	100	100	111	105	107	102	75-126	5	30	
Chloromethane	ug/L	ND	100	100	108	98.2	108	98	55-150	9	30	
cis-1,2-Dichloroethene	ug/L	ND	100	100	98.6	97.2	99	97	75-130	2	30	
cis-1,3-Dichloropropene	ug/L	ND	100	100	96.6	99.6	97	100	72-129	3	30	
Dibromochloromethane	ug/L	ND	100	100	92.7	93.9	93	94	73-129	1	30	
Dibromomethane	ug/L	ND	100	100	92.8	94.1	93	94	75-125	1	30	
Dichlorodifluoromethane	ug/L	ND	100	100	113	107	113	107	70-150	5	30	
Dichlorofluoromethane	ug/L	ND	100	100	101	98.2	101	98	75-135	2	30	
Diethyl ether (Ethyl ether)	ug/L	ND	100	100	98.0	92.9	98	93	72-126	5	30	
Ethylbenzene	ug/L	36.2	100	100	130	131	94	95	75-128	.8	30	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	91.9	90.0	92	90	65-144	2	30	
Isopropylbenzene (Cumene)	ug/L	ND	100	100	103	103	100	99	75-131	.3	30	
Methyl-tert-butyl ether	ug/L	366	100	100	457	477	91	112	74-128	4	30	
Methylene Chloride	ug/L	ND	100	100	101	99.4	101	99	69-125	2	30	
n-Butylbenzene	ug/L	ND	100	100	103	106	102	105	70-137	3	30	
n-Propylbenzene	ug/L	ND	100	100	105	105	102	102	72-131	.03	30	
Naphthalene	ug/L	70.1	100	100	171	171	101	100	70-132	.1	30	
p-Isopropyltoluene	ug/L	ND	100	100	102	103	101	102	73-133	.6	30	
sec-Butylbenzene	ug/L	ND	100	100	102	102	101	101	74-133	.1	30	
Styrene	ug/L	ND	100	100	97.8	99.8	98	100	75-128	2	30	
tert-Butylbenzene	ug/L	ND	100	100	101	101	101	101	74-130	.1	30	
Tetrachloroethene	ug/L	ND	100	100	93.8	93.3	94	93	68-140	.6	30	
Tetrahydrofuran	ug/L	ND	1000	1000	1170	1220	117	122	65-131	4	30	
Toluene	ug/L	48.8	100	100	147	144	98	95	75-129	2	30	
trans-1,2-Dichloroethene	ug/L	ND	100	100	91.2	93.6	91	94	70-136	3	30	
trans-1,3-Dichloropropene	ug/L	ND	100	100	95.3	97.3	95	97	71-125	2	30	
Trichloroethene	ug/L	ND	100	100	91.5	94.5	92	95	72-135	3	30	
Trichlorofluoromethane	ug/L	ND	100	100	112	110	112	110	75-150	2	30	
Vinyl chloride	ug/L	ND	100	100	102	96.8	102	97	73-150	5	30	
Xylene (Total)	ug/L	36.9	300	300	333	333	99	99	75-129	.1	30	
1,2-Dichloroethane-d4 (S)	%.						114	99	75-125			
4-Bromofluorobenzene (S)	%.						101	103	75-125			
Toluene-d8 (S)	%.						101	100	75-125			

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: OEXT/24505 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1633700 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0028	0.010	03/06/14 15:42	
4-Bromofluorobenzene (S)	%.	168	70-130	03/06/14 15:42	1M,S3

LABORATORY CONTROL SAMPLE & LCSD: 1633701 1633702

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.12	0.11	107	105	60-140	3	20	
4-Bromofluorobenzene (S)	%.				152	156	70-130			1M,S0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALIFIERS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

1M	high surr due to second analysis of failing curve, confirmed with initial run
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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(612)607-1700

METHOD CROSS REFERENCE TABLE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Parameter	Matrix	Analytical Method	Preparation Method
6020 MET ICPMS	Water	SW-846 6020A	SW-846 3020A
6020 MET ICPMS, Dissolved	Water	SW-846 6020A	SW-846 3020A
8260 VOC	Water	SW-846 8260B/5030B	N/A

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10259072001	**MW-5**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072002	**MW-1**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072003	**MW-4**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072001	**MW-5**	NWTPH-Gx/8021	GCV/11741		
10259072002	**MW-1**	NWTPH-Gx/8021	GCV/11741		
10259072003	**MW-4**	NWTPH-Gx/8021	GCV/11741		
10259072003	**MW-4**	EPA 3020	MPRP/44684	EPA 6020	ICPM/19388
10259072003	**MW-4**	EPA 3020	MPRP/44699	EPA 6020	ICPM/19379
10259072001	**MW-5**	EPA 8260	MSV/26462		
10259072002	**MW-1**	EPA 8260	MSV/26462		
10259072003	**MW-4**	EPA 8260	MSV/26462		

Pace Analytical
www.paenlabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

10259072

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Page: 1 of 1

1505295

Section A Required Client Information:

Company: APEX COMPANIES
Address: 3015 SW FIRST AVE
PORTLAND, OR 97201
Email To: COWENS@APEXLOS.COM
Phone: (503) 924-4704 Fax
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: TARR VANCOUVER
Project Number: 320001821-00

Section C Invoice Information:

Attention: SAME
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 33470 line 1

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

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 CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	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 ↓: VOCs (8260B)	TPH NWTPH-Gx	EDB BY EPA 8011	TOTAL LEAD	DISSOLVED LEAD	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-5	WT	G	02-24	1615				9				9						X	X	X				001
2	MW-1	WT	G	02-24	1700				9				9						X	X	X				002
3	MW-4	WT	G	02-24	1715				11			2	9						X	X	X	X	X		003
																									004-TB
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)
SAMPLE MW-4 FIELD FILTERED WITH 0.45µM INLINE FILTER	MIKE WHITSON / APEX	02-27	0915	AMPLED	2/28/14	9:30	2.3	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WHITSON
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 02-27-14

*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

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Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: APEX Companies

Project #: WO# : 10259072

10259072

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

Tracking Number: 5779 5331 1097

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: 2pLC

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): 2.7 Cooler Temp Corrected (°C): 2.3

Temp should be above freezing to 6°C Correction Factor: -0.4

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: 2/28/14 MM

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. 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) DOC	☑ Yes ☑ Yes ☑ Yes	☐ No ☐ No ☐ No	☐ N/A 2/28/14 MM ☐ N/A	13. ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample # 1/1 MW-4 Initial when completed: AM Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15. not on COC
Trip Blank Custody Seals Present?	☑ Yes	2/28/14 MM ☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): No Lot Number				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 02/28/14

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
Minneapolis, MN 55414
(612)607-1700

March 14, 2014

John Foxwell
Apex Companies, LLC
3015 SW First Ave
Portland, OR 97201

RE: Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2014. 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.

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: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
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 #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

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SAMPLE SUMMARY

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10259072001	**MW-5**	Water	02/24/14 16:15	02/28/14 09:30
10259072002	**MW-1**	Water	02/24/14 17:00	02/28/14 09:30
10259072003	**MW-4**	Water	02/24/14 17:15	02/28/14 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10259072001	**MW-5**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	72	PASI-M
10259072002	**MW-1**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	LPM	72	PASI-M
10259072003	**MW-4**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 8260	LPM	72	PASI-M

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/24505

S0: Surrogate recovery outside laboratory control limits.

- LCS (Lab ID: 1633701)
  - 4-Bromofluorobenzene (S)
- LCSD (Lab ID: 1633702)
  - 4-Bromofluorobenzene (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- BLANK (Lab ID: 1633700)
  - 4-Bromofluorobenzene (S)
- MW-1 (Lab ID: 10259072002)
  - 4-Bromofluorobenzene (S)
- MW-4 (Lab ID: 10259072003)
  - 4-Bromofluorobenzene (S)
- MW-5 (Lab ID: 10259072001)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: APEX Companies
Date: March 14, 2014

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24505

1M: high surr due to second analysis of failing curve, confirmed with initial run

- BLANK (Lab ID: 1633700)
  - 4-Bromofluorobenzene (S)
- LCS (Lab ID: 1633701)
  - 4-Bromofluorobenzene (S)
- LCSD (Lab ID: 1633702)
  - 4-Bromofluorobenzene (S)
- MW-1 (Lab ID: 10259072002)
  - 4-Bromofluorobenzene (S)
- MW-5 (Lab ID: 10259072001)
  - 4-Bromofluorobenzene (S)

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PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **NWTPH-Gx/8021**
Description: NWTPH-Gx GCV
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for NWTPH-Gx/8021. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: APEX Companies
Date: March 14, 2014

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: APEX Companies
Date: March 14, 2014

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Method: **EPA 8260**
Description: 8260 VOC
Client: APEX Companies
Date: March 14, 2014

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/26462

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10258825016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1633048)
  - Benzene
- MSD (Lab ID: 1633049)
  - Benzene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1633049)
  - Bromomethane

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-5 **Lab ID: 10259072001** Collected: 02/24/14 16:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0098	0.0027	1	03/05/14 11:24	03/06/14 16:36	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	257	%.	70-130		1	03/05/14 11:24	03/06/14 16:36	460-00-4	1M,S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		03/03/14 16:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%.	70-125		1		03/03/14 16:04	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:25	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:25	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:25	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:25	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:25	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:25	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:25	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:25	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:25	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:25	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:25	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:25	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:25	75-15-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-5 **Lab ID: 10259072001** Collected: 02/24/14 16:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:25	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:25	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:25	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:25	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:25	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:25	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	98-82-8	
Methyl-tert-butyl ether	**2.5**	ug/L	1.0	0.50	1		03/03/14 16:25	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:25	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:25	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	108-88-3	
Trichloroethene	**0.13J**	ug/L	0.40	0.13	1		03/03/14 16:25	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:25	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:25	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		03/03/14 16:25	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:25	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:25	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:25	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:25	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:25	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%.	75-125		1		03/03/14 16:25	17060-07-0	
Toluene-d8 (S)	98	%.	75-125		1		03/03/14 16:25	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125		1		03/03/14 16:25	460-00-4	

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0096	0.0027	1	03/05/14 11:24	03/06/14 17:02	106-93-4	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
Surrogates									
4-Bromofluorobenzene (S)	165	%.	70-130		1	03/05/14 11:24	03/06/14 17:02	460-00-4	1M,S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**134**	ug/L	100	50.0	1		03/03/14 15:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	70-125		1		03/03/14 15:04	98-08-8	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:40	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:40	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:40	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:40	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:40	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	120-82-1	
1,2,4-Trimethylbenzene	**9.6**	ug/L	1.0	0.50	1		03/03/14 16:40	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:40	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:40	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:40	78-87-5	
1,3,5-Trimethylbenzene	**0.77J**	ug/L	1.0	0.50	1		03/03/14 16:40	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:40	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:40	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:40	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	108-86-1	
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:40	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:40	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:40	56-23-5	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-1 **Lab ID: 10259072002** Collected: 02/24/14 17:00 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:40	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:40	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:40	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:40	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:40	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	60-29-7	
Ethylbenzene	**1.0**	ug/L	1.0	0.24	1		03/03/14 16:40	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	87-68-3	
Isopropylbenzene (Cumene)	**0.56J**	ug/L	1.0	0.50	1		03/03/14 16:40	98-82-8	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:40	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:40	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	108-88-3	
Trichloroethene	**<0.13**	ug/L	0.40	0.13	1		03/03/14 16:40	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:40	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:40	75-01-4	
Xylene (Total)	**8.4**	ug/L	3.0	0.72	1		03/03/14 16:40	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:40	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:40	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	104-51-8	
n-Propylbenzene	**0.97J**	ug/L	1.0	0.50	1		03/03/14 16:40	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:40	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:40	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:40	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%.	75-125		1		03/03/14 16:40	17060-07-0	
Toluene-d8 (S)	101	%.	75-125		1		03/03/14 16:40	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/03/14 16:40	460-00-4	

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0027**	ug/L	0.0097	0.0027	1	03/05/14 11:24	03/06/14 17:29	106-93-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
Surrogates									
4-Bromofluorobenzene (S)	141	%.	70-130		1	03/05/14 11:24	03/06/14 17:29	460-00-4	S3
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		03/03/14 15:24		
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%.	70-125		1		03/03/14 15:24	98-08-8	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead	**8.7**	ug/L	0.10	0.046	1	03/11/14 15:27	03/12/14 11:11	7439-92-1	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead, Dissolved	**6.3**	ug/L	0.10	0.046	1	03/11/14 14:12	03/11/14 19:13	7439-92-1	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:55	79-34-5	
1,1,2-Trichloroethane	**<0.16**	ug/L	1.0	0.16	1		03/03/14 16:55	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.33**	ug/L	4.0	0.33	1		03/03/14 16:55	76-13-1	
1,1-Dichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	75-35-4	
1,1-Dichloropropene	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:55	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	87-61-6	
1,2,3-Trichloropropane	**<0.54**	ug/L	4.0	0.54	1		03/03/14 16:55	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	96-12-8	
1,2-Dibromoethane (EDB)	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	106-93-4	
1,2-Dichlorobenzene	**<0.092**	ug/L	1.0	0.092	1		03/03/14 16:55	95-50-1	
1,2-Dichloroethane	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:55	107-06-2	
1,2-Dichloropropane	**<0.20**	ug/L	4.0	0.20	1		03/03/14 16:55	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	106-46-7	
2,2-Dichloropropane	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	95-49-8	
2-Hexanone	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	591-78-6	
4-Chlorotoluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		03/03/14 16:55	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		03/03/14 16:55	67-64-1	
Allyl chloride	**<0.23**	ug/L	4.0	0.23	1		03/03/14 16:55	107-05-1	
Benzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	108-86-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Sample: MW-4 **Lab ID: 10259072003** Collected: 02/24/14 17:15 Received: 02/28/14 09:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Bromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	74-97-5	
Bromodichloromethane	**<0.25**	ug/L	1.0	0.25	1		03/03/14 16:55	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	74-83-9	
Carbon disulfide	**<0.22**	ug/L	1.0	0.22	1		03/03/14 16:55	75-15-0	
Carbon tetrachloride	**<0.31**	ug/L	1.0	0.31	1		03/03/14 16:55	56-23-5	
Chlorobenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	108-90-7	
Chloroethane	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	75-00-3	
Chloroform	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:55	67-66-3	
Chloromethane	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	74-87-3	
Dibromochloromethane	**<0.27**	ug/L	1.0	0.27	1		03/03/14 16:55	124-48-1	
Dibromomethane	**<0.38**	ug/L	4.0	0.38	1		03/03/14 16:55	74-95-3	
Dichlorodifluoromethane	**<0.40**	ug/L	1.0	0.40	1		03/03/14 16:55	75-71-8	
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		03/03/14 16:55	75-43-4	
Diethyl ether (Ethyl ether)	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	60-29-7	
Ethylbenzene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	98-82-8	
Methyl-tert-butyl ether	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	91-20-3	
Styrene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	100-42-5	
Tetrachloroethene	**<0.29**	ug/L	1.0	0.29	1		03/03/14 16:55	127-18-4	
Tetrahydrofuran	**<2.9**	ug/L	10.0	2.9	1		03/03/14 16:55	109-99-9	
Toluene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	108-88-3	
Trichloroethene	**<0.13**	ug/L	0.40	0.13	1		03/03/14 16:55	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		03/03/14 16:55	75-69-4	
Vinyl chloride	**<0.14**	ug/L	0.40	0.14	1		03/03/14 16:55	75-01-4	
Xylene (Total)	**<0.72**	ug/L	3.0	0.72	1		03/03/14 16:55	1330-20-7	
cis-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		03/03/14 16:55	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	4.0	0.50	1		03/03/14 16:55	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/03/14 16:55	98-06-6	
trans-1,2-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		03/03/14 16:55	156-60-5	
trans-1,3-Dichloropropene	**<2.0**	ug/L	4.0	2.0	1		03/03/14 16:55	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%.	75-125		1		03/03/14 16:55	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1		03/03/14 16:55	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/03/14 16:55	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: GCV/11741 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1632563 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	03/03/14 13:44	
a,a,a-Trifluorotoluene (S)	%.	104	70-125	03/03/14 13:44	

LABORATORY CONTROL SAMPLE & LCSD: 1632564 1632565

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1030	1010	103	101	75-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				118	111	70-125			

MATRIX SPIKE SAMPLE: 1632908

Parameter	Units	10259072001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	<50.0	1000	1030	103	52-150	
a,a,a-Trifluorotoluene (S)	%.				113	70-125	

SAMPLE DUPLICATE: 1632909

Parameter	Units	10259072003 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	<50.0	<50.0		30	
a,a,a-Trifluorotoluene (S)	%.	102	99	3		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MPRP/44684 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10259072003

METHOD BLANK: 1635895 Matrix: Water
Associated Lab Samples: 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<0.046	0.10	03/12/14 10:57	

LABORATORY CONTROL SAMPLE: 1635896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	81.2	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636610 1636611

Parameter	Units	10259370001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	80	80	82.8	81.2	103	101	75-125	2	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MPRP/44699
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 10259072003

METHOD BLANK: 1636447 Matrix: Water
Associated Lab Samples: 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead, Dissolved	ug/L	<0.046	0.10	03/11/14 18:59	

LABORATORY CONTROL SAMPLE: 1636448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	80	77.3	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636449 1636450

Parameter	Units	10259072003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead, Dissolved	ug/L	6.3	80	80	84.5	83.8	98	97	75-125	.9	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: MSV/26462 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1632466 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1,2,2-Tetrachloroethane	ug/L	<0.13	1.0	03/03/14 10:43	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	03/03/14 10:43	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.33	4.0	03/03/14 10:43	
1,1-Dichloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
1,1-Dichloroethene	ug/L	<0.24	1.0	03/03/14 10:43	
1,1-Dichloropropene	ug/L	<0.25	1.0	03/03/14 10:43	
1,2,3-Trichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2,3-Trichloropropane	ug/L	<0.54	4.0	03/03/14 10:43	
1,2,4-Trichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	03/03/14 10:43	
1,2-Dibromoethane (EDB)	ug/L	<0.23	1.0	03/03/14 10:43	
1,2-Dichlorobenzene	ug/L	<0.092	1.0	03/03/14 10:43	
1,2-Dichloroethane	ug/L	<0.22	1.0	03/03/14 10:43	
1,2-Dichloropropane	ug/L	<0.20	4.0	03/03/14 10:43	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
1,3-Dichloropropane	ug/L	<0.50	1.0	03/03/14 10:43	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	03/03/14 10:43	
2,2-Dichloropropane	ug/L	<0.50	4.0	03/03/14 10:43	
2-Butanone (MEK)	ug/L	<2.5	5.0	03/03/14 10:43	
2-Chlorotoluene	ug/L	<0.50	1.0	03/03/14 10:43	
2-Hexanone	ug/L	<2.5	5.0	03/03/14 10:43	
4-Chlorotoluene	ug/L	<0.23	1.0	03/03/14 10:43	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	03/03/14 10:43	
Acetone	ug/L	<10.0	20.0	03/03/14 10:43	
Allyl chloride	ug/L	<0.23	4.0	03/03/14 10:43	
Benzene	ug/L	<0.24	1.0	03/03/14 10:43	
Bromobenzene	ug/L	<0.23	1.0	03/03/14 10:43	
Bromochloromethane	ug/L	<0.50	1.0	03/03/14 10:43	
Bromodichloromethane	ug/L	<0.25	1.0	03/03/14 10:43	
Bromoform	ug/L	<2.0	4.0	03/03/14 10:43	
Bromomethane	ug/L	<2.0	4.0	03/03/14 10:43	
Carbon disulfide	ug/L	<0.22	1.0	03/03/14 10:43	
Carbon tetrachloride	ug/L	<0.31	1.0	03/03/14 10:43	
Chlorobenzene	ug/L	<0.24	1.0	03/03/14 10:43	
Chloroethane	ug/L	<0.50	1.0	03/03/14 10:43	
Chloroform	ug/L	<0.27	1.0	03/03/14 10:43	
Chloromethane	ug/L	<2.0	4.0	03/03/14 10:43	
cis-1,2-Dichloroethene	ug/L	<0.23	1.0	03/03/14 10:43	
cis-1,3-Dichloropropene	ug/L	<0.50	4.0	03/03/14 10:43	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

METHOD BLANK: 1632466 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.27	1.0	03/03/14 10:43	
Dibromomethane	ug/L	<0.38	4.0	03/03/14 10:43	
Dichlorodifluoromethane	ug/L	<0.40	1.0	03/03/14 10:43	
Dichlorofluoromethane	ug/L	<0.20	1.0	03/03/14 10:43	
Diethyl ether (Ethyl ether)	ug/L	<2.0	4.0	03/03/14 10:43	
Ethylbenzene	ug/L	<0.24	1.0	03/03/14 10:43	
Hexachloro-1,3-butadiene	ug/L	<0.50	4.0	03/03/14 10:43	
Isopropylbenzene (Cumene)	ug/L	<0.50	1.0	03/03/14 10:43	
Methyl-tert-butyl ether	ug/L	<0.50	1.0	03/03/14 10:43	
Methylene Chloride	ug/L	<2.0	4.0	03/03/14 10:43	
n-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
n-Propylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Naphthalene	ug/L	<2.0	4.0	03/03/14 10:43	
p-Isopropyltoluene	ug/L	<0.50	1.0	03/03/14 10:43	
sec-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Styrene	ug/L	<0.24	1.0	03/03/14 10:43	
tert-Butylbenzene	ug/L	<0.50	1.0	03/03/14 10:43	
Tetrachloroethene	ug/L	<0.29	1.0	03/03/14 10:43	
Tetrahydrofuran	ug/L	<2.9	10.0	03/03/14 10:43	
Toluene	ug/L	<0.23	1.0	03/03/14 10:43	
trans-1,2-Dichloroethene	ug/L	<0.24	1.0	03/03/14 10:43	
trans-1,3-Dichloropropene	ug/L	<2.0	4.0	03/03/14 10:43	
Trichloroethene	ug/L	<0.13	0.40	03/03/14 10:43	
Trichlorofluoromethane	ug/L	<0.13	1.0	03/03/14 10:43	
Vinyl chloride	ug/L	<0.14	0.40	03/03/14 10:43	
Xylene (Total)	ug/L	<0.72	3.0	03/03/14 10:43	
1,2-Dichloroethane-d4 (S)	%.	98	75-125	03/03/14 10:43	
4-Bromofluorobenzene (S)	%.	100	75-125	03/03/14 10:43	
Toluene-d8 (S)	%.	99	75-125	03/03/14 10:43	

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	18.1	91	75-125	
1,1,1-Trichloroethane	ug/L	20	17.4	87	73-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.4	87	74-125	
1,1,2-Trichloroethane	ug/L	20	18.0	90	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	17.1	86	56-133	
1,1-Dichloroethane	ug/L	20	17.2	86	75-125	
1,1-Dichloroethene	ug/L	20	15.6	78	70-125	
1,1-Dichloropropene	ug/L	20	16.8	84	73-125	
1,2,3-Trichlorobenzene	ug/L	20	18.3	91	75-125	
1,2,3-Trichloropropane	ug/L	20	19.3	96	75-125	
1,2,4-Trichlorobenzene	ug/L	20	19.5	98	75-125	
1,2,4-Trimethylbenzene	ug/L	20	17.8	89	75-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	70-125	
1,2-Dibromoethane (EDB)	ug/L	20	18.1	90	75-125	
1,2-Dichlorobenzene	ug/L	20	17.7	88	75-125	
1,2-Dichloroethane	ug/L	20	18.2	91	75-125	
1,2-Dichloropropane	ug/L	20	18.6	93	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.0	90	75-125	
1,3-Dichlorobenzene	ug/L	20	18.1	91	75-125	
1,3-Dichloropropane	ug/L	20	18.8	94	75-125	
1,4-Dichlorobenzene	ug/L	20	18.4	92	75-125	
2,2-Dichloropropane	ug/L	20	18.0	90	66-130	
2-Butanone (MEK)	ug/L	100	83.2	83	64-126	
2-Chlorotoluene	ug/L	20	17.6	88	73-125	
2-Hexanone	ug/L	100	89.9	90	69-127	
4-Chlorotoluene	ug/L	20	17.9	89	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.7	92	71-125	
Acetone	ug/L	100	94.3	94	66-131	
Allyl chloride	ug/L	20	17.8	89	70-129	
Benzene	ug/L	20	16.6	83	75-125	
Bromobenzene	ug/L	20	17.7	88	75-125	
Bromochloromethane	ug/L	20	17.8	89	75-125	
Bromodichloromethane	ug/L	20	17.6	88	75-125	
Bromoform	ug/L	20	18.2	91	70-125	
Bromomethane	ug/L	20	20.4	102	30-150	
Carbon disulfide	ug/L	20	13.1	65	60-125	
Carbon tetrachloride	ug/L	20	17.4	87	68-129	
Chlorobenzene	ug/L	20	18.0	90	75-125	
Chloroethane	ug/L	20	18.9	95	68-133	
Chloroform	ug/L	20	17.2	86	75-125	
Chloromethane	ug/L	20	17.5	87	57-140	
cis-1,2-Dichloroethene	ug/L	20	16.7	84	75-125	
cis-1,3-Dichloropropene	ug/L	20	18.8	94	75-125	
Dibromochloromethane	ug/L	20	18.5	92	75-125	
Dibromomethane	ug/L	20	18.9	95	75-125	
Dichlorodifluoromethane	ug/L	20	18.2	91	50-134	
Dichlorofluoromethane	ug/L	20	17.5	88	74-125	
Diethyl ether (Ethyl ether)	ug/L	20	16.7	83	75-125	
Ethylbenzene	ug/L	20	17.7	88	75-125	
Hexachloro-1,3-butadiene	ug/L	20	20.4	102	74-128	
Isopropylbenzene (Cumene)	ug/L	20	18.2	91	73-125	
Methyl-tert-butyl ether	ug/L	20	17.3	86	75-125	
Methylene Chloride	ug/L	20	17.4	87	75-125	
n-Butylbenzene	ug/L	20	18.3	91	73-125	
n-Propylbenzene	ug/L	20	18.0	90	72-125	
Naphthalene	ug/L	20	18.1	90	74-125	
p-Isopropyltoluene	ug/L	20	18.1	90	74-125	
sec-Butylbenzene	ug/L	20	18.1	91	74-125	
Styrene	ug/L	20	18.2	91	75-125	
tert-Butylbenzene	ug/L	20	17.8	89	74-125	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

LABORATORY CONTROL SAMPLE: 1632467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	20	18.5	93	71-125	
Tetrahydrofuran	ug/L	200	187	94	70-125	
Toluene	ug/L	20	18.0	90	75-125	
trans-1,2-Dichloroethene	ug/L	20	15.9	80	73-125	
trans-1,3-Dichloropropene	ug/L	20	18.6	93	75-125	
Trichloroethene	ug/L	20	18.0	90	75-125	
Trichlorofluoromethane	ug/L	20	19.0	95	70-128	
Vinyl chloride	ug/L	20	18.2	91	70-130	
Xylene (Total)	ug/L	60	53.7	89	75-125	
1,2-Dichloroethane-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633048 1633049

Parameter	Units	10258825016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	96.8	93.4	97	93	74-131	4	30	
1,1,1-Trichloroethane	ug/L	ND	100	100	109	99.8	109	100	73-139	9	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	96.7	98.0	97	98	72-125	1	30	
1,1,2-Trichloroethane	ug/L	ND	100	100	96.1	95.6	96	96	75-125	.5	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	100	100	103	105	103	105	68-150	1	30	
1,1-Dichloroethane	ug/L	ND	100	100	102	96.3	102	96	73-132	5	30	
1,1-Dichloroethene	ug/L	ND	100	100	90.9	90.3	91	90	71-142	.6	30	
1,1-Dichloropropene	ug/L	ND	100	100	103	93.6	103	94	73-139	10	30	
1,2,3-Trichlorobenzene	ug/L	ND	100	100	95.9	95.6	96	96	70-129	.3	30	
1,2,3-Trichloropropane	ug/L	ND	100	100	107	108	107	108	74-125	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	100	100	98.1	101	98	101	70-129	3	30	
1,2,4-Trimethylbenzene	ug/L	118	100	100	218	218	100	100	72-136	.3	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	250	250	240	225	96	90	66-127	6	30	
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	98.8	98.6	99	99	75-125	.2	30	
1,2-Dichlorobenzene	ug/L	ND	100	100	97.7	98.3	98	98	75-125	.6	30	
1,2-Dichloroethane	ug/L	7.5	100	100	119	114	112	107	68-128	4	30	
1,2-Dichloropropane	ug/L	ND	100	100	99.3	95.3	99	95	74-131	4	30	
1,3,5-Trimethylbenzene	ug/L	41.3	100	100	139	143	98	101	75-131	3	30	
1,3-Dichlorobenzene	ug/L	ND	100	100	96.9	99.5	97	99	73-125	3	30	
1,3-Dichloropropane	ug/L	ND	100	100	98.6	98.3	99	98	75-125	.2	30	
1,4-Dichlorobenzene	ug/L	ND	100	100	97.7	99.9	98	100	73-125	2	30	
2,2-Dichloropropane	ug/L	ND	100	100	101	96.4	101	96	58-150	5	30	
2-Butanone (MEK)	ug/L	ND	500	500	487	436	97	87	56-140	11	30	
2-Chlorotoluene	ug/L	ND	100	100	105	106	105	106	70-130	1	30	
2-Hexanone	ug/L	ND	500	500	452	454	90	91	63-132	.3	30	
4-Chlorotoluene	ug/L	ND	100	100	102	103	102	103	73-126	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	500	500	462	458	92	92	69-128	.8	30	
Acetone	ug/L	ND	500	500	573	611	115	122	57-143	6	30	
Allyl chloride	ug/L	ND	100	100	89.6	86.6	90	87	65-146	3	30	
Benzene	ug/L	743	100	100	876	815	133	72	75-129	7	30	M1

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633048 1633049

Parameter	Units	10258825016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromobenzene	ug/L	ND	100	100	96.2	95.3	96	95	74-125	.9	30	
Bromochloromethane	ug/L	ND	100	100	101	101	101	101	75-126	.3	30	
Bromodichloromethane	ug/L	ND	100	100	98.5	97.3	99	97	75-128	1	30	
Bromoform	ug/L	ND	100	100	83.4	83.3	83	83	66-130	.1	30	
Bromomethane	ug/L	ND	100	100	39.3	54.8	39	55	30-150	33	30	R1
Carbon disulfide	ug/L	ND	100	100	76.0	73.0	75	72	56-140	4	30	
Carbon tetrachloride	ug/L	ND	100	100	103	97.6	103	98	69-148	5	30	
Chlorobenzene	ug/L	ND	100	100	99.2	99.6	99	100	75-125	.4	30	
Chloroethane	ug/L	ND	100	100	110	106	110	106	71-143	4	30	
Chloroform	ug/L	ND	100	100	111	105	107	102	75-126	5	30	
Chloromethane	ug/L	ND	100	100	108	98.2	108	98	55-150	9	30	
cis-1,2-Dichloroethene	ug/L	ND	100	100	98.6	97.2	99	97	75-130	2	30	
cis-1,3-Dichloropropene	ug/L	ND	100	100	96.6	99.6	97	100	72-129	3	30	
Dibromochloromethane	ug/L	ND	100	100	92.7	93.9	93	94	73-129	1	30	
Dibromomethane	ug/L	ND	100	100	92.8	94.1	93	94	75-125	1	30	
Dichlorodifluoromethane	ug/L	ND	100	100	113	107	113	107	70-150	5	30	
Dichlorofluoromethane	ug/L	ND	100	100	101	98.2	101	98	75-135	2	30	
Diethyl ether (Ethyl ether)	ug/L	ND	100	100	98.0	92.9	98	93	72-126	5	30	
Ethylbenzene	ug/L	36.2	100	100	130	131	94	95	75-128	.8	30	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	91.9	90.0	92	90	65-144	2	30	
Isopropylbenzene (Cumene)	ug/L	ND	100	100	103	103	100	99	75-131	.3	30	
Methyl-tert-butyl ether	ug/L	366	100	100	457	477	91	112	74-128	4	30	
Methylene Chloride	ug/L	ND	100	100	101	99.4	101	99	69-125	2	30	
n-Butylbenzene	ug/L	ND	100	100	103	106	102	105	70-137	3	30	
n-Propylbenzene	ug/L	ND	100	100	105	105	102	102	72-131	.03	30	
Naphthalene	ug/L	70.1	100	100	171	171	101	100	70-132	.1	30	
p-Isopropyltoluene	ug/L	ND	100	100	102	103	101	102	73-133	.6	30	
sec-Butylbenzene	ug/L	ND	100	100	102	102	101	101	74-133	.1	30	
Styrene	ug/L	ND	100	100	97.8	99.8	98	100	75-128	2	30	
tert-Butylbenzene	ug/L	ND	100	100	101	101	101	101	74-130	.1	30	
Tetrachloroethene	ug/L	ND	100	100	93.8	93.3	94	93	68-140	.6	30	
Tetrahydrofuran	ug/L	ND	1000	1000	1170	1220	117	122	65-131	4	30	
Toluene	ug/L	48.8	100	100	147	144	98	95	75-129	2	30	
trans-1,2-Dichloroethene	ug/L	ND	100	100	91.2	93.6	91	94	70-136	3	30	
trans-1,3-Dichloropropene	ug/L	ND	100	100	95.3	97.3	95	97	71-125	2	30	
Trichloroethene	ug/L	ND	100	100	91.5	94.5	92	95	72-135	3	30	
Trichlorofluoromethane	ug/L	ND	100	100	112	110	112	110	75-150	2	30	
Vinyl chloride	ug/L	ND	100	100	102	96.8	102	97	73-150	5	30	
Xylene (Total)	ug/L	36.9	300	300	333	333	99	99	75-129	.1	30	
1,2-Dichloroethane-d4 (S)	%.						114	99	75-125			
4-Bromofluorobenzene (S)	%.						101	103	75-125			
Toluene-d8 (S)	%.						101	100	75-125			

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

QC Batch: OEXT/24505 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10259072001, 10259072002, 10259072003

METHOD BLANK: 1633700 Matrix: Water
Associated Lab Samples: 10259072001, 10259072002, 10259072003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0028	0.010	03/06/14 15:42	
4-Bromofluorobenzene (S)	%.	168	70-130	03/06/14 15:42	1M,S3

LABORATORY CONTROL SAMPLE & LCSD: 1633701 1633702

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.12	0.11	107	105	60-140	3	20	
4-Bromofluorobenzene (S)	%.				152	156	70-130			1M,S0

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

1M	high surr due to second analysis of failing curve, confirmed with initial run
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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

METHOD CROSS REFERENCE TABLE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Parameter	Matrix	Analytical Method	Preparation Method
6020 MET ICPMS	Water	SW-846 6020A	SW-846 3020A
6020 MET ICPMS, Dissolved	Water	SW-846 6020A	SW-846 3020A
8260 VOC	Water	SW-846 8260B/5030B	N/A

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tarr Vancouver 320001821-00
Pace Project No.: 10259072

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10259072001	**MW-5**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072002	**MW-1**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072003	**MW-4**	EPA 8011	OEXT/24505	EPA 8011	GCSV/12911
10259072001	**MW-5**	NWTPH-Gx/8021	GCV/11741		
10259072002	**MW-1**	NWTPH-Gx/8021	GCV/11741		
10259072003	**MW-4**	NWTPH-Gx/8021	GCV/11741		
10259072003	**MW-4**	EPA 3020	MPRP/44684	EPA 6020	ICPM/19388
10259072003	**MW-4**	EPA 3020	MPRP/44699	EPA 6020	ICPM/19379
10259072001	**MW-5**	EPA 8260	MSV/26462		
10259072002	**MW-1**	EPA 8260	MSV/26462		
10259072003	**MW-4**	EPA 8260	MSV/26462		

Pace Analytical
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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.

10259072

1154

Page: 1 of 1

1505295

Section A Required Client Information:

Company: APEX COMPANIES
Address: 3015 SW FIRST AVE
PORTLAND, OR 97201
Email To: COWENS@APEXLOS.COM
Phone: (503) 924-4704 Fax
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: TARR VANCOUVER
Project Number: 320001821-00

Section C Invoice Information:

Attention: SAME
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 33470 line 1

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

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 CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	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 ↓: VOCs (8260B)	TPH NWTPH-Gx	EDB BY EPA 8011	TOTAL LEAD	DISSOLVED LEAD	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-5	WT	G	02-24	1615				9				9						X	X	X				001
2	MW-1	WT	G	02-24	1700				9				9						X	X	X				002
3	MW-4	WT	G	02-24	1715				11			2	9						X	X	X	X	X		003
																									004-TB
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)
SAMPLE MW-4 FIELD FILTERED WITH 0.45µM INLINE FILTER	MIKE WHITSON / APEX	02-27	0915	AMPLED	2/28/14	9:30	2.3	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WHITSON
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 02-27-14

*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

1154

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: APEX Companies

Project #: WO# : 10259072

10259072

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

Tracking Number: 5779 5331 1097

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: 2pLC

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): 2.7 Cooler Temp Corrected (°C): 2.3

Temp should be above freezing to 6°C Correction Factor: -0.4

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: 2/28/14 MM

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. 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) DOC	☑ Yes ☑ Yes ☑ Yes	☐ No ☐ No ☐ No	☐ N/A 2/28/14 MM ☐ N/A	13. ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample # 1/1 MW-4 Initial when completed: AM Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15. not on COC
Trip Blank Custody Seals Present?	☑ Yes	2/28/14 MM ☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): No Lot Number				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 02/28/14

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
Minneapolis, MN 55414
(612)607-1700

January 19, 2015

John Foxwell
Apex Companies, LLC
3015 SW First Ave
Portland, OR 97201

RE: Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Dear John Foxwell:
Enclosed are the analytical results for sample(s) received by the laboratory on January 03, 2015. 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.

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

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Carmen Owens, Apex Companies, LLC

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

CERTIFICATIONS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10293234001	**MW-5**	Water	01/02/15 09:14	01/03/15 10:28
10293234002	**MW-4**	Water	01/02/15 10:07	01/03/15 10:28
10293234003	**MW-1**	Water	01/02/15 10:55	01/03/15 10:28

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SAMPLE ANALYTE COUNT

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10293234001	**MW-5**	EPA 8011	XV1	2	PASI-M
		NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx	LLC	2	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 8260	EB2	72	PASI-M
10293234002	**MW-4**	EPA 8011	XV1	2	PASI-M
		NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx	LLC	2	PASI-M
		EPA 6020	TT3	1	PASI-M
		EPA 6020	RJS	1	PASI-M
		EPA 8260	EB2	72	PASI-M
10293234003	**MW-1**	EPA 8011	XV1	2	PASI-M
		NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx	LLC	2	PASI-M
		EPA 6020	TT3	1	PASI-M
		EPA 8260	EB2	72	PASI-M

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: APEX Companies
Date: January 19, 2015

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/27835

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS LV
Client: APEX Companies
Date: January 19, 2015

General Information:
3 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: OEXT/27839

B: Analyte was detected in the associated method blank.

- BLANK for HBN 336144 [OEXT/278 (Lab ID: 1877645)
  - Motor Oil Range

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/27839

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **NWTPH-Gx**
Description: NWTPH-Gx GCV
Client: APEX Companies
Date: January 19, 2015

General Information:
3 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: APEX Companies
Date: January 19, 2015

General Information:
3 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: MPRP/51731

B: Analyte was detected in the associated method blank.

- BLANK for HBN 336522 [MPRP/517 (Lab ID: 1879265)
  - Lead

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: APEX Companies
Date: January 19, 2015

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **EPA 8260**
Description: 8260 VOC
Client: APEX Companies
Date: January 19, 2015

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- MW-1 (Lab ID: 10293234003)
- MW-4 (Lab ID: 10293234002)
- MW-5 (Lab ID: 10293234001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: MSV/30074

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
- BLANK (Lab ID: 1879331)
  - Dichlorodifluoromethane
- DUP (Lab ID: 1880527)
  - Dichlorodifluoromethane
- LCS (Lab ID: 1879332)
  - Dichlorodifluoromethane
- MS (Lab ID: 1880526)
  - Dichlorodifluoromethane
- MW-1 (Lab ID: 10293234003)
  - Dichlorodifluoromethane
- MW-4 (Lab ID: 10293234002)
  - Dichlorodifluoromethane
- MW-5 (Lab ID: 10293234001)
  - Dichlorodifluoromethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Method: **EPA 8260**
Description: 8260 VOC
Client: APEX Companies
Date: January 19, 2015

QC Batch: MSV/30074

B: Analyte was detected in the associated method blank.
- BLANK for HBN 336531 [MSV/3007 (Lab ID: 1879331)
  - Chlorobenzene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/30074

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1879332)
  - Dichlorodifluoromethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/30074

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10293234001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1880526)
  - Carbon disulfide
  - Chloroethane

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-5 **Lab ID: 10293234001** Collected: 01/02/15 09:14 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0044**	ug/L	0.0098	0.0044	1	01/06/15 17:17	01/07/15 04:35	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	99	%.	30-150		1	01/06/15 17:17	01/07/15 04:35	460-00-4	
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510								
Diesel Fuel Range	**0.13J**	mg/L	0.40	0.048	1	01/07/15 08:34	01/10/15 11:44	68334-30-5	
Motor Oil Range	**0.083J**	mg/L	0.40	0.028	1	01/07/15 08:34	01/10/15 11:44		B
Surrogates									
o-Terphenyl (S)	81	%.	50-150		1	01/07/15 08:34	01/10/15 11:44	84-15-1	
n-Triacontane (S)	84	%.	50-150		1	01/07/15 08:34	01/10/15 11:44	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		01/06/15 12:50		
Surrogates									
a,a,a-Trifluorotoluene (S)	92	%.	50-150		1		01/06/15 12:50	98-08-8	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead	**0.54**	ug/L	0.10	0.046	1	01/09/15 14:21	01/12/15 18:42	7439-92-1	B
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	630-20-6	
1,1,1-Trichloroethane	**<0.26**	ug/L	1.0	0.26	1		01/12/15 12:01	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	79-34-5	
1,1,2-Trichloroethane	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:01	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	76-13-1	
1,1-Dichloroethane	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:01	75-34-3	
1,1-Dichloroethene	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:01	75-35-4	
1,1-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	4.0	1.2	1		01/12/15 12:01	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:01	96-12-8	
1,2-Dibromoethane (EDB)	**<0.15**	ug/L	1.0	0.15	1		01/12/15 12:01	106-93-4	
1,2-Dichlorobenzene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:01	95-50-1	
1,2-Dichloroethane	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:01	107-06-2	
1,2-Dichloropropane	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:01	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	106-46-7	
2,2-Dichloropropane	**<0.17**	ug/L	4.0	0.17	1		01/12/15 12:01	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:01	78-93-3	
2-Chlorotoluene	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:01	95-49-8	
2-Hexanone	**<2.5**	ug/L	20.0	2.5	1		01/12/15 12:01	591-78-6	
4-Chlorotoluene	**<0.083**	ug/L	1.0	0.083	1		01/12/15 12:01	106-43-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-5 **Lab ID: 10293234001** Collected: 01/02/15 09:14 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:01	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		01/12/15 12:01	67-64-1	
Allyl chloride	**<0.45**	ug/L	4.0	0.45	1		01/12/15 12:01	107-05-1	
Benzene	**<0.15**	ug/L	1.0	0.15	1		01/12/15 12:01	71-43-2	
Bromobenzene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:01	108-86-1	
Bromochloromethane	**<0.12**	ug/L	1.0	0.12	1		01/12/15 12:01	74-97-5	
Bromodichloromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:01	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:01	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:01	74-83-9	
Carbon disulfide	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:01	75-15-0	M1
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:01	56-23-5	
Chlorobenzene	**<0.066**	ug/L	4.0	0.066	1		01/12/15 12:01	108-90-7	
Chloroethane	**<0.27**	ug/L	1.0	0.27	1		01/12/15 12:01	75-00-3	M1
Chloroform	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:01	67-66-3	
Chloromethane	**<0.34**	ug/L	4.0	0.34	1		01/12/15 12:01	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	124-48-1	
Dibromomethane	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:01	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	75-71-8	CL,L2
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:01	75-43-4	
Diethyl ether (Ethyl ether)	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:01	60-29-7	
Ethylbenzene	**0.34J**	ug/L	1.0	0.16	1		01/12/15 12:01	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	98-82-8	
Methyl-tert-butyl ether	**1.8**	ug/L	1.0	0.17	1		01/12/15 12:01	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:01	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:01	91-20-3	
Styrene	**<0.069**	ug/L	4.0	0.069	1		01/12/15 12:01	100-42-5	
Tetrachloroethene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:01	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	10.0	2.0	1		01/12/15 12:01	109-99-9	
Toluene	**<0.11**	ug/L	1.0	0.11	1		01/12/15 12:01	108-88-3	
Trichloroethene	**<0.091**	ug/L	0.40	0.091	1		01/12/15 12:01	79-01-6	
Trichlorofluoromethane	**<0.22**	ug/L	1.0	0.22	1		01/12/15 12:01	75-69-4	
Vinyl chloride	**<0.10**	ug/L	0.40	0.10	1		01/12/15 12:01	75-01-4	
Xylene (Total)	**<0.40**	ug/L	3.0	0.40	1		01/12/15 12:01	1330-20-7	
cis-1,2-Dichloroethene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:01	156-59-2	
cis-1,3-Dichloropropene	**<0.13**	ug/L	4.0	0.13	1		01/12/15 12:01	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:01	98-06-6	
trans-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		01/12/15 12:01	156-60-5	
trans-1,3-Dichloropropene	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:01	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%.	75-125		1		01/12/15 12:01	17060-07-0	
Toluene-d8 (S)	104	%.	75-125		1		01/12/15 12:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-5 **Lab ID: 10293234001** Collected: 01/02/15 09:14 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Surrogates									
4-Bromofluorobenzene (S)	113	%.	75-125		1		01/12/15 12:01	460-00-4	

Sample: MW-4 **Lab ID: 10293234002** Collected: 01/02/15 10:07 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0044**	ug/L	0.0098	0.0044	1	01/06/15 17:17	01/07/15 05:01	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	96	%.	30-150		1	01/06/15 17:17	01/07/15 05:01	460-00-4	
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510								
Diesel Fuel Range	**0.056J**	mg/L	0.40	0.048	1	01/07/15 08:34	01/10/15 10:39	68334-30-5	
Motor Oil Range	**0.083J**	mg/L	0.40	0.028	1	01/07/15 08:34	01/10/15 10:39		B
Surrogates									
o-Terphenyl (S)	73	%.	50-150		1	01/07/15 08:34	01/10/15 10:39	84-15-1	
n-Triacontane (S)	76	%.	50-150		1	01/07/15 08:34	01/10/15 10:39	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx								
TPH as Gas	**<50.0**	ug/L	100	50.0	1		01/06/15 17:38		
Surrogates									
a,a,a-Trifluorotoluene (S)	91	%.	50-150		1		01/06/15 17:38	98-08-8	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead	**1.9**	ug/L	0.10	0.046	1	01/07/15 12:56	01/08/15 14:59	7439-92-1	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead, Dissolved	**2.4**	ug/L	0.10	0.046	1	01/08/15 11:45	01/09/15 17:41	7439-92-1	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	630-20-6	
1,1,1-Trichloroethane	**<0.26**	ug/L	1.0	0.26	1		01/12/15 12:24	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	79-34-5	
1,1,2-Trichloroethane	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:24	79-00-5	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	76-13-1	
1,1-Dichloroethane	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:24	75-34-3	
1,1-Dichloroethene	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:24	75-35-4	
1,1-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	4.0	1.2	1		01/12/15 12:24	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:24	96-12-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-4 **Lab ID: 10293234002** Collected: 01/02/15 10:07 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
1,2-Dibromoethane (EDB)	**<0.15**	ug/L	1.0	0.15	1		01/12/15 12:24	106-93-4	
1,2-Dichlorobenzene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:24	95-50-1	
1,2-Dichloroethane	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:24	107-06-2	
1,2-Dichloropropane	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:24	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	106-46-7	
2,2-Dichloropropane	**<0.17**	ug/L	4.0	0.17	1		01/12/15 12:24	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:24	78-93-3	
2-Chlorotoluene	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:24	95-49-8	
2-Hexanone	**<2.5**	ug/L	20.0	2.5	1		01/12/15 12:24	591-78-6	
4-Chlorotoluene	**<0.083**	ug/L	1.0	0.083	1		01/12/15 12:24	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:24	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		01/12/15 12:24	67-64-1	
Allyl chloride	**<0.45**	ug/L	4.0	0.45	1		01/12/15 12:24	107-05-1	
Benzene	**<0.15**	ug/L	1.0	0.15	1		01/12/15 12:24	71-43-2	
Bromobenzene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:24	108-86-1	
Bromochloromethane	**<0.12**	ug/L	1.0	0.12	1		01/12/15 12:24	74-97-5	
Bromodichloromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:24	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:24	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:24	74-83-9	
Carbon disulfide	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:24	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:24	56-23-5	
Chlorobenzene	**0.63J**	ug/L	4.0	0.066	1		01/12/15 12:24	108-90-7	B
Chloroethane	**<0.27**	ug/L	1.0	0.27	1		01/12/15 12:24	75-00-3	
Chloroform	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:24	67-66-3	
Chloromethane	**<0.34**	ug/L	4.0	0.34	1		01/12/15 12:24	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	124-48-1	
Dibromomethane	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:24	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	75-71-8	CL,L2
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:24	75-43-4	
Diethyl ether (Ethyl ether)	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:24	60-29-7	
Ethylbenzene	**0.32J**	ug/L	1.0	0.16	1		01/12/15 12:24	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		01/12/15 12:24	1634-04-4	
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:24	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:24	91-20-3	
Styrene	**<0.069**	ug/L	4.0	0.069	1		01/12/15 12:24	100-42-5	
Tetrachloroethene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:24	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	10.0	2.0	1		01/12/15 12:24	109-99-9	
Toluene	**<0.11**	ug/L	1.0	0.11	1		01/12/15 12:24	108-88-3	
Trichloroethene	**<0.091**	ug/L	0.40	0.091	1		01/12/15 12:24	79-01-6	
Trichlorofluoromethane	**<0.22**	ug/L	1.0	0.22	1		01/12/15 12:24	75-69-4	
Vinyl chloride	**<0.10**	ug/L	0.40	0.10	1		01/12/15 12:24	75-01-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-4 **Lab ID: 10293234002** Collected: 01/02/15 10:07 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Xylene (Total)	**<0.40**	ug/L	3.0	0.40	1		01/12/15 12:24	1330-20-7	
cis-1,2-Dichloroethene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:24	156-59-2	
cis-1,3-Dichloropropene	**<0.13**	ug/L	4.0	0.13	1		01/12/15 12:24	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	99-87-6	
sec-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:24	98-06-6	
trans-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		01/12/15 12:24	156-60-5	
trans-1,3-Dichloropropene	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:24	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%.	75-125		1		01/12/15 12:24	17060-07-0	
Toluene-d8 (S)	104	%.	75-125		1		01/12/15 12:24	2037-26-5	
4-Bromofluorobenzene (S)	108	%.	75-125		1		01/12/15 12:24	460-00-4	

Sample: MW-1 **Lab ID: 10293234003** Collected: 01/02/15 10:55 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**<0.0044**	ug/L	0.0099	0.0044	1	01/06/15 17:17	01/07/15 05:27	106-93-4	
Surrogates									
4-Bromofluorobenzene (S)	130	%.	30-150		1	01/06/15 17:17	01/07/15 05:27	460-00-4	
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510								
Diesel Fuel Range	**0.45**	mg/L	0.40	0.048	1	01/07/15 08:34	01/10/15 11:01	68334-30-5	
Motor Oil Range	**0.16J**	mg/L	0.40	0.028	1	01/07/15 08:34	01/10/15 11:01		B
Surrogates									
o-Terphenyl (S)	71	%.	50-150		1	01/07/15 08:34	01/10/15 11:01	84-15-1	
n-Triacontane (S)	74	%.	50-150		1	01/07/15 08:34	01/10/15 11:01	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx								
TPH as Gas	**165**	ug/L	100	50.0	1		01/06/15 17:18		
Surrogates									
a,a,a-Trifluorotoluene (S)	88	%.	50-150		1		01/06/15 17:18	98-08-8	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Lead	**0.74**	ug/L	0.10	0.046	1	01/07/15 12:56	01/08/15 15:01	7439-92-1	
8260 VOC	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	630-20-6	
1,1,1-Trichloroethane	**<0.26**	ug/L	1.0	0.26	1		01/12/15 12:48	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	79-34-5	
1,1,2-Trichloroethane	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:48	79-00-5	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-1 **Lab ID: 10293234003** Collected: 01/02/15 10:55 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	76-13-1	
1,1-Dichloroethane	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:48	75-34-3	
1,1-Dichloroethene	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:48	75-35-4	
1,1-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	563-58-6	
1,2,3-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	87-61-6	
1,2,3-Trichloropropane	**<1.2**	ug/L	4.0	1.2	1		01/12/15 12:48	96-18-4	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	120-82-1	
1,2,4-Trimethylbenzene	**7.4**	ug/L	1.0	0.50	1		01/12/15 12:48	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:48	96-12-8	
1,2-Dibromoethane (EDB)	**<0.15**	ug/L	1.0	0.15	1		01/12/15 12:48	106-93-4	
1,2-Dichlorobenzene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:48	95-50-1	
1,2-Dichloroethane	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:48	107-06-2	
1,2-Dichloropropane	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:48	78-87-5	
1,3,5-Trimethylbenzene	**1.4**	ug/L	1.0	0.50	1		01/12/15 12:48	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	106-46-7	
2,2-Dichloropropane	**<0.17**	ug/L	4.0	0.17	1		01/12/15 12:48	594-20-7	
2-Butanone (MEK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:48	78-93-3	
2-Chlorotoluene	**<0.14**	ug/L	1.0	0.14	1		01/12/15 12:48	95-49-8	
2-Hexanone	**<2.5**	ug/L	20.0	2.5	1		01/12/15 12:48	591-78-6	
4-Chlorotoluene	**<0.083**	ug/L	1.0	0.083	1		01/12/15 12:48	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.5**	ug/L	5.0	2.5	1		01/12/15 12:48	108-10-1	
Acetone	**<10.0**	ug/L	20.0	10.0	1		01/12/15 12:48	67-64-1	
Allyl chloride	**<0.45**	ug/L	4.0	0.45	1		01/12/15 12:48	107-05-1	
Benzene	**0.25J**	ug/L	1.0	0.15	1		01/12/15 12:48	71-43-2	
Bromobenzene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:48	108-86-1	
Bromochloromethane	**<0.12**	ug/L	1.0	0.12	1		01/12/15 12:48	74-97-5	
Bromodichloromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:48	75-27-4	
Bromoform	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:48	75-25-2	
Bromomethane	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:48	74-83-9	
Carbon disulfide	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:48	75-15-0	
Carbon tetrachloride	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:48	56-23-5	
Chlorobenzene	**<0.066**	ug/L	4.0	0.066	1		01/12/15 12:48	108-90-7	
Chloroethane	**<0.27**	ug/L	1.0	0.27	1		01/12/15 12:48	75-00-3	
Chloroform	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:48	67-66-3	
Chloromethane	**<0.34**	ug/L	4.0	0.34	1		01/12/15 12:48	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	124-48-1	
Dibromomethane	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:48	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	75-71-8	CL,L2
Dichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		01/12/15 12:48	75-43-4	
Diethyl ether (Ethyl ether)	**<0.14**	ug/L	4.0	0.14	1		01/12/15 12:48	60-29-7	
Ethylbenzene	**1.3**	ug/L	1.0	0.16	1		01/12/15 12:48	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	87-68-3	
Isopropylbenzene (Cumene)	**1.4**	ug/L	1.0	0.50	1		01/12/15 12:48	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		01/12/15 12:48	1634-04-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Sample: MW-1 **Lab ID: 10293234003** Collected: 01/02/15 10:55 Received: 01/03/15 10:28 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260								
Methylene Chloride	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:48	75-09-2	
Naphthalene	**<2.0**	ug/L	4.0	2.0	1		01/12/15 12:48	91-20-3	
Styrene	**<0.069**	ug/L	4.0	0.069	1		01/12/15 12:48	100-42-5	
Tetrachloroethene	**<0.16**	ug/L	1.0	0.16	1		01/12/15 12:48	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	10.0	2.0	1		01/12/15 12:48	109-99-9	
Toluene	**<0.11**	ug/L	1.0	0.11	1		01/12/15 12:48	108-88-3	
Trichloroethene	**<0.091**	ug/L	0.40	0.091	1		01/12/15 12:48	79-01-6	
Trichlorofluoromethane	**<0.22**	ug/L	1.0	0.22	1		01/12/15 12:48	75-69-4	
Vinyl chloride	**<0.10**	ug/L	0.40	0.10	1		01/12/15 12:48	75-01-4	
Xylene (Total)	**<0.40**	ug/L	3.0	0.40	1		01/12/15 12:48	1330-20-7	
cis-1,2-Dichloroethene	**<0.13**	ug/L	1.0	0.13	1		01/12/15 12:48	156-59-2	
cis-1,3-Dichloropropene	**<0.13**	ug/L	4.0	0.13	1		01/12/15 12:48	10061-01-5	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	104-51-8	
n-Propylbenzene	**2.8**	ug/L	1.0	0.50	1		01/12/15 12:48	103-65-1	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	99-87-6	
sec-Butylbenzene	**1.7**	ug/L	1.0	0.50	1		01/12/15 12:48	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		01/12/15 12:48	98-06-6	
trans-1,2-Dichloroethene	**<0.23**	ug/L	1.0	0.23	1		01/12/15 12:48	156-60-5	
trans-1,3-Dichloropropene	**<0.18**	ug/L	4.0	0.18	1		01/12/15 12:48	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%.	75-125		1		01/12/15 12:48	17060-07-0	
Toluene-d8 (S)	103	%.	75-125		1		01/12/15 12:48	2037-26-5	
4-Bromofluorobenzene (S)	106	%.	75-125		1		01/12/15 12:48	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: GCV/13188 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

METHOD BLANK: 1876874 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	01/06/15 11:08	
a,a,a-Trifluorotoluene (S)	%.	95	50-150	01/06/15 11:08	

METHOD BLANK: 1876875 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	<50.0	100	01/06/15 14:54	
a,a,a-Trifluorotoluene (S)	%.	93	50-150	01/06/15 14:54	

LABORATORY CONTROL SAMPLE & LCSD: 1876876 1876877

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1030	1120	103	112	65-125	9	20	
a,a,a-Trifluorotoluene (S)	%.				93	94	50-150			

MATRIX SPIKE SAMPLE: 1877732

Parameter	Units	10293201001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	ND	1000	1190	119	50-150	
a,a,a-Trifluorotoluene (S)	%.				100	50-150	

SAMPLE DUPLICATE: 1877731

Parameter	Units	10293200001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	54.1J		30	H5
a,a,a-Trifluorotoluene (S)	%.	92	93	1		

SAMPLE DUPLICATE: 1877733

Parameter	Units	10293201002 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	<50.0		30	
a,a,a-Trifluorotoluene (S)	%.	92	91	1		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: MPRP/51638 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10293234002, 10293234003

METHOD BLANK: 1877086 Matrix: Water
Associated Lab Samples: 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	0.055J	0.10	01/08/15 14:53	

LABORATORY CONTROL SAMPLE: 1877087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	82.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1877088 1877089

Parameter	Units	10293606001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	0.24	80	80	77.1	83.1	96	104	75-125	8	20	

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: MPRP/51731
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Associated Lab Samples: 10293234001

METHOD BLANK: 1879265
Matrix: Water
Associated Lab Samples: 10293234001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	0.067J	0.10	01/12/15 18:32	

LABORATORY CONTROL SAMPLE: 1879266

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	79.3	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1879267 1879268

Parameter	Units	10293234001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	0.54	80	80	79.6	79.3	99	98	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: MPRP/51677
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 10293234002

METHOD BLANK: 1877853 Matrix: Water
Associated Lab Samples: 10293234002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead, Dissolved	ug/L	<0.046	0.10	01/09/15 17:31	

LABORATORY CONTROL SAMPLE: 1877854

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	80	82.5	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1877855 1877856

Parameter	Units	10293234002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead, Dissolved	ug/L	2.4	80	80	82.9	84.3	101	102	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: MSV/30074 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10293234001, 10293234002, 10293234003

METHOD BLANK: 1879331 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	1.0	01/12/15 11:13	
1,1,1-Trichloroethane	ug/L	<0.26	1.0	01/12/15 11:13	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	1.0	01/12/15 11:13	
1,1,2-Trichloroethane	ug/L	<0.14	1.0	01/12/15 11:13	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	1.0	01/12/15 11:13	
1,1-Dichloroethane	ug/L	<0.16	1.0	01/12/15 11:13	
1,1-Dichloroethene	ug/L	<0.20	1.0	01/12/15 11:13	
1,1-Dichloropropene	ug/L	<0.50	1.0	01/12/15 11:13	
1,2,3-Trichlorobenzene	ug/L	<0.50	1.0	01/12/15 11:13	
1,2,3-Trichloropropane	ug/L	<1.2	4.0	01/12/15 11:13	
1,2,4-Trichlorobenzene	ug/L	<0.50	1.0	01/12/15 11:13	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	4.0	01/12/15 11:13	
1,2-Dibromoethane (EDB)	ug/L	<0.15	1.0	01/12/15 11:13	
1,2-Dichlorobenzene	ug/L	<0.16	1.0	01/12/15 11:13	
1,2-Dichloroethane	ug/L	<0.13	1.0	01/12/15 11:13	
1,2-Dichloropropane	ug/L	<0.14	4.0	01/12/15 11:13	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	01/12/15 11:13	
1,3-Dichloropropane	ug/L	<0.50	1.0	01/12/15 11:13	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	01/12/15 11:13	
2,2-Dichloropropane	ug/L	<0.17	4.0	01/12/15 11:13	
2-Butanone (MEK)	ug/L	<2.5	5.0	01/12/15 11:13	
2-Chlorotoluene	ug/L	<0.14	1.0	01/12/15 11:13	
2-Hexanone	ug/L	<2.5	20.0	01/12/15 11:13	
4-Chlorotoluene	ug/L	<0.083	1.0	01/12/15 11:13	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	5.0	01/12/15 11:13	
Acetone	ug/L	<10.0	20.0	01/12/15 11:13	
Allyl chloride	ug/L	<0.45	4.0	01/12/15 11:13	
Benzene	ug/L	<0.15	1.0	01/12/15 11:13	
Bromobenzene	ug/L	<0.13	1.0	01/12/15 11:13	
Bromochloromethane	ug/L	<0.12	1.0	01/12/15 11:13	
Bromodichloromethane	ug/L	<0.20	1.0	01/12/15 11:13	
Bromoform	ug/L	<2.0	4.0	01/12/15 11:13	
Bromomethane	ug/L	<2.0	4.0	01/12/15 11:13	
Carbon disulfide	ug/L	<0.20	1.0	01/12/15 11:13	
Carbon tetrachloride	ug/L	<0.16	1.0	01/12/15 11:13	
Chlorobenzene	ug/L	0.63J	4.0	01/12/15 11:13	
Chloroethane	ug/L	<0.27	1.0	01/12/15 11:13	
Chloroform	ug/L	<0.16	1.0	01/12/15 11:13	
Chloromethane	ug/L	<0.34	4.0	01/12/15 11:13	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

METHOD BLANK: 1879331 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	<0.13	1.0	01/12/15 11:13	
cis-1,3-Dichloropropene	ug/L	<0.13	4.0	01/12/15 11:13	
Dibromochloromethane	ug/L	<0.50	1.0	01/12/15 11:13	
Dibromomethane	ug/L	<0.18	4.0	01/12/15 11:13	
Dichlorodifluoromethane	ug/L	<0.50	1.0	01/12/15 11:13	CL
Dichlorofluoromethane	ug/L	<0.20	1.0	01/12/15 11:13	
Diethyl ether (Ethyl ether)	ug/L	<0.14	4.0	01/12/15 11:13	
Ethylbenzene	ug/L	<0.16	1.0	01/12/15 11:13	
Hexachloro-1,3-butadiene	ug/L	<0.50	1.0	01/12/15 11:13	
Isopropylbenzene (Cumene)	ug/L	<0.50	1.0	01/12/15 11:13	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	01/12/15 11:13	
Methylene Chloride	ug/L	<2.0	4.0	01/12/15 11:13	
n-Butylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
n-Propylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
Naphthalene	ug/L	<2.0	4.0	01/12/15 11:13	
p-Isopropyltoluene	ug/L	<0.50	1.0	01/12/15 11:13	
sec-Butylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
Styrene	ug/L	<0.069	4.0	01/12/15 11:13	
tert-Butylbenzene	ug/L	<0.50	1.0	01/12/15 11:13	
Tetrachloroethene	ug/L	<0.16	1.0	01/12/15 11:13	
Tetrahydrofuran	ug/L	<2.0	10.0	01/12/15 11:13	
Toluene	ug/L	<0.11	1.0	01/12/15 11:13	
trans-1,2-Dichloroethene	ug/L	<0.23	1.0	01/12/15 11:13	
trans-1,3-Dichloropropene	ug/L	<0.18	4.0	01/12/15 11:13	
Trichloroethene	ug/L	<0.091	0.40	01/12/15 11:13	
Trichlorofluoromethane	ug/L	<0.22	1.0	01/12/15 11:13	
Vinyl chloride	ug/L	<0.10	0.40	01/12/15 11:13	
Xylene (Total)	ug/L	<0.40	3.0	01/12/15 11:13	
1,2-Dichloroethane-d4 (S)	%.	102	75-125	01/12/15 11:13	
4-Bromofluorobenzene (S)	%.	104	75-125	01/12/15 11:13	
Toluene-d8 (S)	%.	104	75-125	01/12/15 11:13	

LABORATORY CONTROL SAMPLE: 1879332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.3	97	75-125	
1,1,1-Trichloroethane	ug/L	20	19.3	96	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	101	75-125	
1,1,2-Trichloroethane	ug/L	20	19.4	97	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	19.2	96	60-135	
1,1-Dichloroethane	ug/L	20	19.4	97	69-125	
1,1-Dichloroethene	ug/L	20	16.7	83	68-125	
1,1-Dichloropropene	ug/L	20	18.2	91	74-125	
1,2,3-Trichlorobenzene	ug/L	20	21.7	109	69-136	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

LABORATORY CONTROL SAMPLE: 1879332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/L	20	20.0	100	75-125	
1,2,4-Trichlorobenzene	ug/L	20	20.8	104	73-127	
1,2,4-Trimethylbenzene	ug/L	20	20.1	100	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	53.5	107	65-145	
1,2-Dibromoethane (EDB)	ug/L	20	18.5	92	75-125	
1,2-Dichlorobenzene	ug/L	20	18.6	93	75-125	
1,2-Dichloroethane	ug/L	20	19.4	97	73-125	
1,2-Dichloropropane	ug/L	20	18.7	93	75-125	
1,3,5-Trimethylbenzene	ug/L	20	19.9	100	75-125	
1,3-Dichlorobenzene	ug/L	20	19.7	98	74-125	
1,3-Dichloropropane	ug/L	20	19.9	100	75-125	
1,4-Dichlorobenzene	ug/L	20	19.0	95	75-125	
2,2-Dichloropropane	ug/L	20	20.9	105	59-139	
2-Butanone (MEK)	ug/L	100	96.5	96	63-130	
2-Chlorotoluene	ug/L	20	20.7	104	72-125	
2-Hexanone	ug/L	100	101	101	69-133	
4-Chlorotoluene	ug/L	20	20.2	101	73-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	113	113	71-126	
Acetone	ug/L	100	103	103	69-131	
Allyl chloride	ug/L	20	20.1	100	67-125	
Benzene	ug/L	20	18.0	90	42-143	
Bromobenzene	ug/L	20	17.9	90	75-125	
Bromochloromethane	ug/L	20	16.3	81	75-125	
Bromodichloromethane	ug/L	20	20.5	103	75-125	
Bromoform	ug/L	20	20.2	101	70-125	
Bromomethane	ug/L	20	20.7	103	30-150	
Carbon disulfide	ug/L	20	13.5	68	55-132	
Carbon tetrachloride	ug/L	20	20.6	103	75-126	
Chlorobenzene	ug/L	20	18.0	90	75-125	
Chloroethane	ug/L	20	22.2	111	65-134	
Chloroform	ug/L	20	19.7	99	75-125	
Chloromethane	ug/L	20	19.9	100	35-150	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	72-125	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	75-125	
Dibromochloromethane	ug/L	20	20.3	101	75-125	
Dibromomethane	ug/L	20	18.3	92	75-125	
Dichlorodifluoromethane	ug/L	20	7.9	39	50-134	CL,L0
Dichlorofluoromethane	ug/L	20	21.1	106	69-125	
Diethyl ether (Ethyl ether)	ug/L	20	19.0	95	72-125	
Ethylbenzene	ug/L	20	18.7	93	75-125	
Hexachloro-1,3-butadiene	ug/L	20	23.9	119	70-138	
Isopropylbenzene (Cumene)	ug/L	20	22.6	113	75-125	
Methyl-tert-butyl ether	ug/L	20	20.0	100	73-125	
Methylene Chloride	ug/L	20	18.7	93	73-125	
n-Butylbenzene	ug/L	20	21.2	106	72-133	
n-Propylbenzene	ug/L	20	20.0	100	72-126	
Naphthalene	ug/L	20	21.6	108	70-127	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

LABORATORY CONTROL SAMPLE: 1879332

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	21.0	105	72-132	
sec-Butylbenzene	ug/L	20	21.7	108	73-132	
Styrene	ug/L	20	18.6	93	75-125	
tert-Butylbenzene	ug/L	20	21.3	106	73-128	
Tetrachloroethene	ug/L	20	17.7	88	74-125	
Tetrahydrofuran	ug/L	200	189	94	62-133	
Toluene	ug/L	20	18.4	92	74-125	
trans-1,2-Dichloroethene	ug/L	20	16.4	82	69-125	
trans-1,3-Dichloropropene	ug/L	20	21.0	105	75-125	
Trichloroethene	ug/L	20	16.9	85	75-125	
Trichlorofluoromethane	ug/L	20	18.6	93	74-127	
Vinyl chloride	ug/L	20	23.4	117	66-132	
Xylene (Total)	ug/L	60	59.1	99	75-125	
1,2-Dichloroethane-d4 (S)	%.			104	75-125	
4-Bromofluorobenzene (S)	%.			104	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE SAMPLE: 1880526

Parameter	Units	10293234001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	20	16.8	84	68-141	
1,1,1-Trichloroethane	ug/L	<0.26	20	16.3	82	52-150	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	20	18.9	95	61-143	
1,1,2-Trichloroethane	ug/L	<0.14	20	16.7	83	65-140	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	20	14.8	74	51-150	
1,1-Dichloroethane	ug/L	<0.16	20	15.6	78	49-150	
1,1-Dichloroethene	ug/L	<0.20	20	11.7	58	40-150	
1,1-Dichloropropene	ug/L	<0.50	20	12.8	64	50-150	
1,2,3-Trichlorobenzene	ug/L	<0.50	20	17.8	89	59-148	
1,2,3-Trichloropropane	ug/L	<1.2	20	18.3	91	65-141	
1,2,4-Trichlorobenzene	ug/L	<0.50	20	16.3	82	61-140	
1,2,4-Trimethylbenzene	ug/L	<0.50	20	16.7	83	47-149	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	50	51.8	104	53-150	
1,2-Dibromoethane (EDB)	ug/L	<0.15	20	14.8	74	65-137	
1,2-Dichlorobenzene	ug/L	<0.16	20	15.9	80	66-133	
1,2-Dichloroethane	ug/L	<0.13	20	15.7	79	54-138	
1,2-Dichloropropane	ug/L	<0.14	20	15.2	76	59-142	
1,3,5-Trimethylbenzene	ug/L	<0.50	20	15.6	78	47-149	
1,3-Dichlorobenzene	ug/L	<0.50	20	15.8	79	66-132	
1,3-Dichloropropane	ug/L	<0.50	20	16.1	80	66-134	
1,4-Dichlorobenzene	ug/L	<0.50	20	16.3	81	65-129	
2,2-Dichloropropane	ug/L	<0.17	20	15.9	80	40-150	
2-Butanone (MEK)	ug/L	<2.5	100	99.8	100	39-150	
2-Chlorotoluene	ug/L	<0.14	20	16.7	83	58-147	
2-Hexanone	ug/L	<2.5	100	97.5	98	62-145	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

MATRIX SPIKE SAMPLE: 1880526

Parameter	Units	10293234001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	<0.083	20	16.6	83	64-138	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	100	110	110	59-143	
Acetone	ug/L	<10.0	100	91.0	91	52-150	
Allyl chloride	ug/L	<0.45	20	14.7	74	34-150	
Benzene	ug/L	<0.15	20	15.0	75	30-150	
Bromobenzene	ug/L	<0.13	20	14.9	75	66-136	
Bromochloromethane	ug/L	<0.12	20	15.8	79	62-140	
Bromodichloromethane	ug/L	<0.20	20	17.9	89	62-143	
Bromoform	ug/L	<2.0	20	17.6	88	59-136	
Bromomethane	ug/L	<2.0	20	9.8	49	30-150	
Carbon disulfide	ug/L	<0.20	20	2.5	12	35-150	M1
Carbon tetrachloride	ug/L	<0.16	20	17.1	86	51-150	
Chlorobenzene	ug/L	<0.066	20	14.7	74	65-133	
Chloroethane	ug/L	<0.27	20	30.4	152	48-150	M1
Chloroform	ug/L	<0.16	20	18.5	92	54-149	
Chloromethane	ug/L	<0.34	20	27.8	139	30-150	
cis-1,2-Dichloroethene	ug/L	<0.13	20	17.3	86	49-150	
cis-1,3-Dichloropropene	ug/L	<0.13	20	15.2	76	64-130	
Dibromochloromethane	ug/L	<0.50	20	18.3	92	68-138	
Dibromomethane	ug/L	<0.18	20	14.0	70	67-134	
Dichlorodifluoromethane	ug/L	<0.50	20	14.7	73	39-150	CL
Dichlorofluoromethane	ug/L	<0.20	20	24.0	120	51-150	
Diethyl ether (Ethyl ether)	ug/L	<0.14	20	15.8	79	50-145	
Ethylbenzene	ug/L	0.34J	20	14.3	70	55-139	
Hexachloro-1,3-butadiene	ug/L	<0.50	20	16.8	84	49-150	
Isopropylbenzene (Cumene)	ug/L	<0.50	20	18.2	91	61-146	
Methyl-tert-butyl ether	ug/L	1.8	20	19.8	90	50-144	
Methylene Chloride	ug/L	<2.0	20	12.2	61	54-136	
n-Butylbenzene	ug/L	<0.50	20	16.6	83	55-150	
n-Propylbenzene	ug/L	<0.50	20	15.8	79	59-142	
Naphthalene	ug/L	<2.0	20	19.3	96	46-150	
p-Isopropyltoluene	ug/L	<0.50	20	15.9	79	60-149	
sec-Butylbenzene	ug/L	<0.50	20	18.2	91	60-150	
Styrene	ug/L	<0.069	20	15.6	78	68-134	
tert-Butylbenzene	ug/L	<0.50	20	16.9	85	62-146	
Tetrachloroethene	ug/L	<0.16	20	11.2	56	44-150	
Tetrahydrofuran	ug/L	<2.0	200	145	72	59-145	
Toluene	ug/L	<0.11	20	13.5	67	52-148	
trans-1,2-Dichloroethene	ug/L	<0.23	20	11.3	56	45-150	
trans-1,3-Dichloropropene	ug/L	<0.18	20	16.6	83	68-132	
Trichloroethene	ug/L	<0.091	20	11.6	58	52-150	
Trichlorofluoromethane	ug/L	<0.22	20	22.4	112	50-150	
Vinyl chloride	ug/L	<0.10	20	28.3	141	43-150	
Xylene (Total)	ug/L	<0.40	60	47.3	79	54-144	
1,2-Dichloroethane-d4 (S)	%.				112	75-125	
4-Bromofluorobenzene (S)	%.				102	75-125	
Toluene-d8 (S)	%.				101	75-125	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

SAMPLE DUPLICATE: 1880527

Parameter	Units	10293234002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50		30	
1,1,1-Trichloroethane	ug/L	<0.26	<0.26		30	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50		30	
1,1,2-Trichloroethane	ug/L	<0.14	<0.14		30	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	<0.50		30	
1,1-Dichloroethane	ug/L	<0.16	<0.16		30	
1,1-Dichloroethene	ug/L	<0.20	<0.20		30	
1,1-Dichloropropene	ug/L	<0.50	<0.50		30	
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50		30	
1,2,3-Trichloropropane	ug/L	<1.2	<1.2		30	
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50		30	
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50		30	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0		30	
1,2-Dibromoethane (EDB)	ug/L	<0.15	<0.15		30	
1,2-Dichlorobenzene	ug/L	<0.16	<0.16		30	
1,2-Dichloroethane	ug/L	<0.13	<0.13		30	
1,2-Dichloropropane	ug/L	<0.14	<0.14		30	
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50		30	
1,3-Dichlorobenzene	ug/L	<0.50	<0.50		30	
1,3-Dichloropropane	ug/L	<0.50	<0.50		30	
1,4-Dichlorobenzene	ug/L	<0.50	<0.50		30	
2,2-Dichloropropane	ug/L	<0.17	<0.17		30	
2-Butanone (MEK)	ug/L	<2.5	<2.5		30	
2-Chlorotoluene	ug/L	<0.14	<0.14		30	
2-Hexanone	ug/L	<2.5	<2.5		30	
4-Chlorotoluene	ug/L	<0.083	<0.083		30	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.5	<2.5		30	
Acetone	ug/L	<10.0	<10.0		30	
Allyl chloride	ug/L	<0.45	<0.45		30	
Benzene	ug/L	<0.15	<0.15		30	
Bromobenzene	ug/L	<0.13	<0.13		30	
Bromochloromethane	ug/L	<0.12	<0.12		30	
Bromodichloromethane	ug/L	<0.20	<0.20		30	
Bromoform	ug/L	<2.0	<2.0		30	
Bromomethane	ug/L	<2.0	<2.0		30	
Carbon disulfide	ug/L	<0.20	<0.20		30	
Carbon tetrachloride	ug/L	<0.16	<0.16		30	
Chlorobenzene	ug/L	0.63J	<0.066		30	
Chloroethane	ug/L	<0.27	<0.27		30	
Chloroform	ug/L	<0.16	<0.16		30	
Chloromethane	ug/L	<0.34	<0.34		30	
cis-1,2-Dichloroethene	ug/L	<0.13	<0.13		30	
cis-1,3-Dichloropropene	ug/L	<0.13	<0.13		30	
Dibromochloromethane	ug/L	<0.50	<0.50		30	
Dibromomethane	ug/L	<0.18	<0.18		30	
Dichlorodifluoromethane	ug/L	<0.50	<0.50		30	CL
Dichlorofluoromethane	ug/L	<0.20	<0.20		30	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

SAMPLE DUPLICATE: 1880527

Parameter	Units	10293234002 Result	Dup Result	RPD	Max RPD	Qualifiers
Diethyl ether (Ethyl ether)	ug/L	<0.14	<0.14		30	
Ethylbenzene	ug/L	0.32J	<0.16		30	
Hexachloro-1,3-butadiene	ug/L	<0.50	<0.50		30	
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50		30	
Methyl-tert-butyl ether	ug/L	<0.17	<0.17		30	
Methylene Chloride	ug/L	<2.0	<2.0		30	
n-Butylbenzene	ug/L	<0.50	<0.50		30	
n-Propylbenzene	ug/L	<0.50	<0.50		30	
Naphthalene	ug/L	<2.0	<2.0		30	
p-Isopropyltoluene	ug/L	<0.50	<0.50		30	
sec-Butylbenzene	ug/L	<0.50	<0.50		30	
Styrene	ug/L	<0.069	<0.069		30	
tert-Butylbenzene	ug/L	<0.50	<0.50		30	
Tetrachloroethene	ug/L	<0.16	<0.16		30	
Tetrahydrofuran	ug/L	<2.0	<2.0		30	
Toluene	ug/L	<0.11	<0.11		30	
trans-1,2-Dichloroethene	ug/L	<0.23	<0.23		30	
trans-1,3-Dichloropropene	ug/L	<0.18	<0.18		30	
Trichloroethene	ug/L	<0.091	<0.091		30	
Trichlorofluoromethane	ug/L	<0.22	<0.22		30	
Vinyl chloride	ug/L	<0.10	<0.10		30	
Xylene (Total)	ug/L	<0.40	<0.40		30	
1,2-Dichloroethane-d4 (S)	%.	107	108	1		
4-Bromofluorobenzene (S)	%.	108	107	1		
Toluene-d8 (S)	%.	104	116	11		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: OEXT/27835 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10293234001, 10293234002, 10293234003

METHOD BLANK: 1877504 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	<0.0046	0.010	01/07/15 03:15	
4-Bromofluorobenzene (S)	%.	100	30-150	01/07/15 03:15	

LABORATORY CONTROL SAMPLE & LCSD: 1877505 1877506

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.10	0.11	96	99	60-140	3	20	
4-Bromofluorobenzene (S)	%.				96	97	30-150			

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

QC Batch: OEXT/27839 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3510 Analysis Description: NWTPH-Dx GCS LV
Associated Lab Samples: 10293234001, 10293234002, 10293234003

METHOD BLANK: 1877645 Matrix: Water
Associated Lab Samples: 10293234001, 10293234002, 10293234003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/L	<0.048	0.40	01/10/15 09:34	
Motor Oil Range	mg/L	0.068J	0.40	01/10/15 09:34	
n-Triacontane (S)	%.	78	50-150	01/10/15 09:34	
o-Terphenyl (S)	%.	81	50-150	01/10/15 09:34	

LABORATORY CONTROL SAMPLE & LCSD: 1877646 1877647

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	mg/L	2	1.6	1.6	79	79	50-150	0	20	
Motor Oil Range	mg/L	2	1.6	1.6	79	82	50-150	4	20	
n-Triacontane (S)	%.				80	82	50-150			
o-Terphenyl (S)	%.				79	79	50-150			

SAMPLE DUPLICATE: 1877648

Parameter	Units	10293234001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	mg/L	0.13J	0.15J		30	
Motor Oil Range	mg/L	0.083J	0.10J		30	
n-Triacontane (S)	%.	84	80	5		
o-Terphenyl (S)	%.	81	77	5		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

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.

PQL - Practical Quantitation 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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: GCSV/14839

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: GCSV/14857

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
H5	Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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

METHOD CROSS REFERENCE TABLE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Parameter	Matrix	Analytical Method	Preparation Method
6020 MET ICPMS	Water	SW-846 6020A	SW-846 3020A
6020 MET ICPMS, Dissolved	Water	SW-846 6020A	SW-846 3020A
8260 VOC	Water	SW-846 8260B/5030B	N/A

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1821-00 Tarr Vancouver
Pace Project No.: 10293234

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10293234001	**MW-5**	EPA 8011	OEXT/27835	EPA 8011	GCSV/14839
10293234002	**MW-4**	EPA 8011	OEXT/27835	EPA 8011	GCSV/14839
10293234003	**MW-1**	EPA 8011	OEXT/27835	EPA 8011	GCSV/14839
10293234001	**MW-5**	EPA 3510	OEXT/27839	NWTPH-Dx	GCSV/14857
10293234002	**MW-4**	EPA 3510	OEXT/27839	NWTPH-Dx	GCSV/14857
10293234003	**MW-1**	EPA 3510	OEXT/27839	NWTPH-Dx	GCSV/14857
10293234001	**MW-5**	NWTPH-Gx	GCV/13188		
10293234002	**MW-4**	NWTPH-Gx	GCV/13188		
10293234003	**MW-1**	NWTPH-Gx	GCV/13188		
10293234001	**MW-5**	EPA 3020	MPRP/51731	EPA 6020	ICPM/22950
10293234002	**MW-4**	EPA 3020	MPRP/51638	EPA 6020	ICPM/22924
10293234003	**MW-1**	EPA 3020	MPRP/51638	EPA 6020	ICPM/22924
10293234002	**MW-4**	EPA 3020	MPRP/51677	EPA 6020	ICPM/22938
10293234001	**MW-5**	EPA 8260	MSV/30074		
10293234002	**MW-4**	EPA 8260	MSV/30074		
10293234003	**MW-1**	EPA 8260	MSV/30074		

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

10243234

Page: 1 of 1

1734241

Section A Required Client Information:

Company: Apex Companies LLC
Address: 3015 SW 1st Ave.
Portland, OR
Email To: jfoxwell@apexcos.com
Phone: 503 924-4704 Fax:
Requested Due Date/TAT: Standard TAT

Section B Required Project Information:

Report To: John Foxwell
Copy To: Carmen Owens
↳ cowens@apexcos.com
Purchase Order No.:
Project Name: Tarr Vancouver
Project Number: 1821-00

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Analysis Test Y/N	VOCs (8260)	NWTPH-Gx	NWTPH-Dx	EDB (8011)	Total Lead	Dissolved Lead	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N	N	Y		
1	MW-5	WT	G			12/15	0914		12			X	X						X	X	X	X	X	X		
2	MW-4	WT	G				1007		13			X	X						X	X	X	X	X	X		
3	MW-1	WT	G			↓	1055		12			X	X						X	X	X	X	X	X		
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)
Dissolved Lead samples were field filtered	[signature] / Apex	9/02/15	1230 pm	Alyssa Penaes	1-3-14	1028	1.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chris Brackett

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 9/02/15

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: 28Feb2014 Page 1 of 1
	Document No.: F-MN-L-213-rev.09	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: APEX Companies LLC

Project #: WO#: 10293234

10293234

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

Tracking Number: 5779 5332 7567

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: ☐B88A9130516413 ☒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):** 1.2 **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Correction Factor:** True **Date and Initials of Person Examining Contents:** Amp 1-5-14

				Comments:
Chain of Custody Present?	☒Yes	☐No	☐	1.
Chain of Custody Filled Out?	☒Yes	☐No	☐	2.
Chain of Custody Relinquished?	☒Yes	☐No	☐	3.
Sampler Name and/or Signature on COC?	☒Yes	☐No	☐	4.
Samples Arrived within Hold Time?	☒Yes	☐No	☐	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No	☐	6.
Rush Turn Around Time Requested?	☐Yes	☒No	☐	7.
Sufficient Volume?	☒Yes	☐No	☐	8.
Correct Containers Used?	☒Yes	☐No	☐	9.
-Pace Containers Used?	☒Yes	☐No	☐	
Containers Intact?	☒Yes	☐No	☐	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☒No	☐	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒Yes	☐No	☐	12.
All containers needing acid/base preservation have been checked?	☒Yes	☐No	☐ N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH ☐HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☒Yes	☐No	☐ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐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): 10314-382A				

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

Person Contacted: John Foxwell **Date/Time:** 1/5/15 11:59

Comments/Resolution:

Do not analyze the Trip Blank, hold.

Project Manager Review: [signature] **Date:** 1/5/15

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)