Hamilton Street Bridge Site
Semiannual Monitoring Report
March 23, 2017 Sampling Event
Spokane, Washington

July 31, 2017

Prepared for

Avista Corporation
Spokane, Washington

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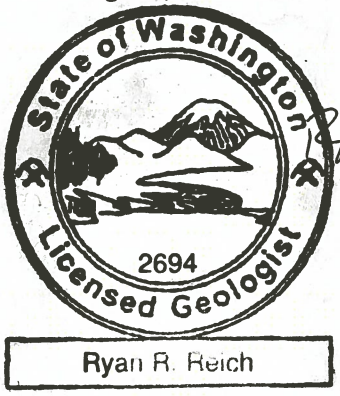

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LIST OF ABBREVIATIONS AND ACRONYMS

Avista ..... Avista Corporation
BNSF ..... BNSF Railway Company
CMP ..... compliance monitoring plan
cPAH ..... carcinogenic PAHs
Ecology ..... Washington State Department of Ecology
EPA ..... US Environmental Protection Agency
ft ..... feet
HSB ..... Hamilton Street Bridge
LAI ..... Landau Associates, Inc.
mg/L ..... milligrams per liter
MSL ..... mean sea level
PAH ..... polycyclic aromatic hydrocarbons
RL ..... reporting limit
WAD ..... weak acid dissociable

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1.0 INTRODUCTION

This semiannual compliance monitoring report has been prepared on behalf of Avista Corporation (Avista) and BNSF Railway Company (BNSF) by Landau Associates, Inc. (LAI) for the first quarter 2017 compliance monitoring event at the Hamilton Street Bridge (HSB) Site (site) in Spokane, Washington. Compliance monitoring activities completed during this reporting period included depth-to-groundwater measurements, groundwater sampling, laboratory analysis of groundwater samples, and river stage measurement.

2.0 MONITORING PROGRAM AND WELL LOCATIONS

In accordance with the site Compliance Monitoring Plan (CMP) (LAI 2003), water level monitoring and groundwater sampling are completed semiannually in the first and third quarters of the calendar year.

In 2010 and 2015, the Washington State Department of Ecology (Ecology) completed 5-year Periodic Reviews of site conditions in accordance with WAC 173-340-420(2) (Ecology 2010; Ecology 2015). In the conclusions presented in the 2010 Review, Ecology recommended that groundwater monitoring at the site include analysis for both total and dissolved arsenic. In a comment letter dated December 1, 2010, Avista agreed to add analysis for dissolved arsenic in future monitoring events (Avista 2010).

On March 23 and 24, 2017, depth-to-groundwater measurements and groundwater samples were collected from selected monitoring wells at the site, and the river stage level was recorded from a fixed surveyed reference point established on a pier of the James A. Keefe Bridge. A vicinity map showing the location of the site is presented on Figure 1, and a site map showing monitoring well locations and other site features is presented on Figure 2.

2.1 Investigations Methods

Depth to groundwater was measured at selected shallow and deep monitoring wells in accordance with the CMP. Water levels were measured to the nearest 0.01 foot (ft) from the survey mark on the top of PVC casing at each well using an electronic water level indicator and recorded on a field data sheet. Depth-to-groundwater data was then combined with well elevation data to determine groundwater elevations in each well.

In accordance with the CMP, groundwater samples are collected semiannually from monitoring wells MW02-20, MW02-40, MW04-20, MW07-90, and ATC7-20 for chemical analysis. Groundwater samples were collected from monitoring wells MW02-20, MW02-40, and MW04-20 on March 23, 2017 and from MW07-90 and ATC7-20 on March 24, 2017. One duplicate sample (MW20-60) was also collected from MW07-90.

Prior to sampling, each monitoring well was purged of three casing volumes of water using a clean purge pump or peristaltic pump and dedicated polyethylene tubing. Non-disposable monitoring and sampling equipment was decontaminated prior to use in each well. Each casing volume removed during purging was field tested for pH, temperature, conductivity, and turbidity. The field measurements were recorded on groundwater sampling data sheets.

Groundwater samples were collected in containers supplied by the analytical laboratory, and each sample container was labeled, logged on a chain-of-custody report, and placed in a chilled cooler for transport to the laboratory. The chain-of-custody reports are presented in Appendix A.

2.2 Laboratory Analysis

Groundwater samples were submitted to TestAmerica Analytical Laboratory in Spokane, Washington for chemical analysis. All samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) by US Environmental Protection Agency (EPA) Method 8270 SIM, total and dissolved arsenic by EPA Method 200.8, mercury by EPA Method 245.1, and weak acid dissociable (WAD) cyanide by EPA Method SM4500-CN.

A data quality evaluation was conducted by LAI on all laboratory analytical data, and the analytical results for WAD cyanide in the sample from ATC7-20 were determined to be unusable due to low laboratory matrix spike (MS) recovery in this sample. All of the other analytical results were determined to be acceptable for project use without additional data qualification; all samples were received by the laboratory in good condition and were prepared and analyzed within allowable holding times.

3.0 MONITORING RESULTS

3.1 Groundwater Elevation

Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 1. Groundwater elevations in site monitoring wells (MW02-20, MW02-40, MW04-20, MW07-90, and ATC7-20) ranged between 1,880.02 ft and 1,881.76 ft on March 23, 2017. Measured groundwater elevations were above the recorded river stage elevation of 1,862.87 ft measured on March 23, 2017.

3.2 Groundwater Analytical Results

The field parameters measured during sampling are presented in Table 2, and the laboratory analytical results are presented in Tables 3 and 4. The analytical results are summarized as follows:

- Total arsenic was detected above the method reporting limit (RL) in the samples from MW02-40, MW04-20, ATC7-20 and the sample and duplicate sample from MW07-90 at concentrations ranging from 0.0013 to 0.006 milligrams per liter (mg/L). The concentration reported in ATC7-20 (0.006 mg/L) is at the site cleanup level of 0.006 mg/L.
- Dissolved arsenic was detected above the RL in the samples from MW02-40, MW04-20, ATC7-20, and the sample and duplicate sample from MW07-90 at concentrations ranging from 0.0014 to 0.0057 mg/L. None of the concentrations is greater than the site cleanup level of 0.006 mg/L.
- Non-carcinogenic PAH compounds acenaphthylene and acenapthene, were reported above the laboratory reporting limit (RL) in the sample collected from monitoring well MW02-40. The concentration of acenapthene is well below the site cleanup level and there is no site cleanup level for acenaphthylene. No carcinogenic PAH compounds were reported above the RL in samples collected during first quarter 2017 monitoring.
- WAD cyanide was not reported above the RL in samples from MW02-20, MW02-40, MW04-20, or MW07-90. WAD cyanide was not reported above the RL in ATC7-20, however, the result was determined to be unusable due to low laboratory MS recovery.
- Mercury was not detected above the RL in any of the samples.

4.0 SUMMARY

Total arsenic was reported in the sample from ATC7-20 at 0.006 mg/L, which is equal to the site cleanup level. None of the other reported detections of total arsenic, dissolved arsenic, or non-carcinogenic PAHs were reported at concentrations above site cleanup levels. Mercury was not reported above the RL in any of the samples; and WAD cyanide was not reported above the RL in MW02-20, MW02-40, MW04-20, or MW07-90.

5.0 USE OF THIS REPORT

This report has been prepared for the exclusive use of Avista Corporation and BNSF Railway for specific application to the Hamilton Street Bridge Site in Spokane, Washington. The reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

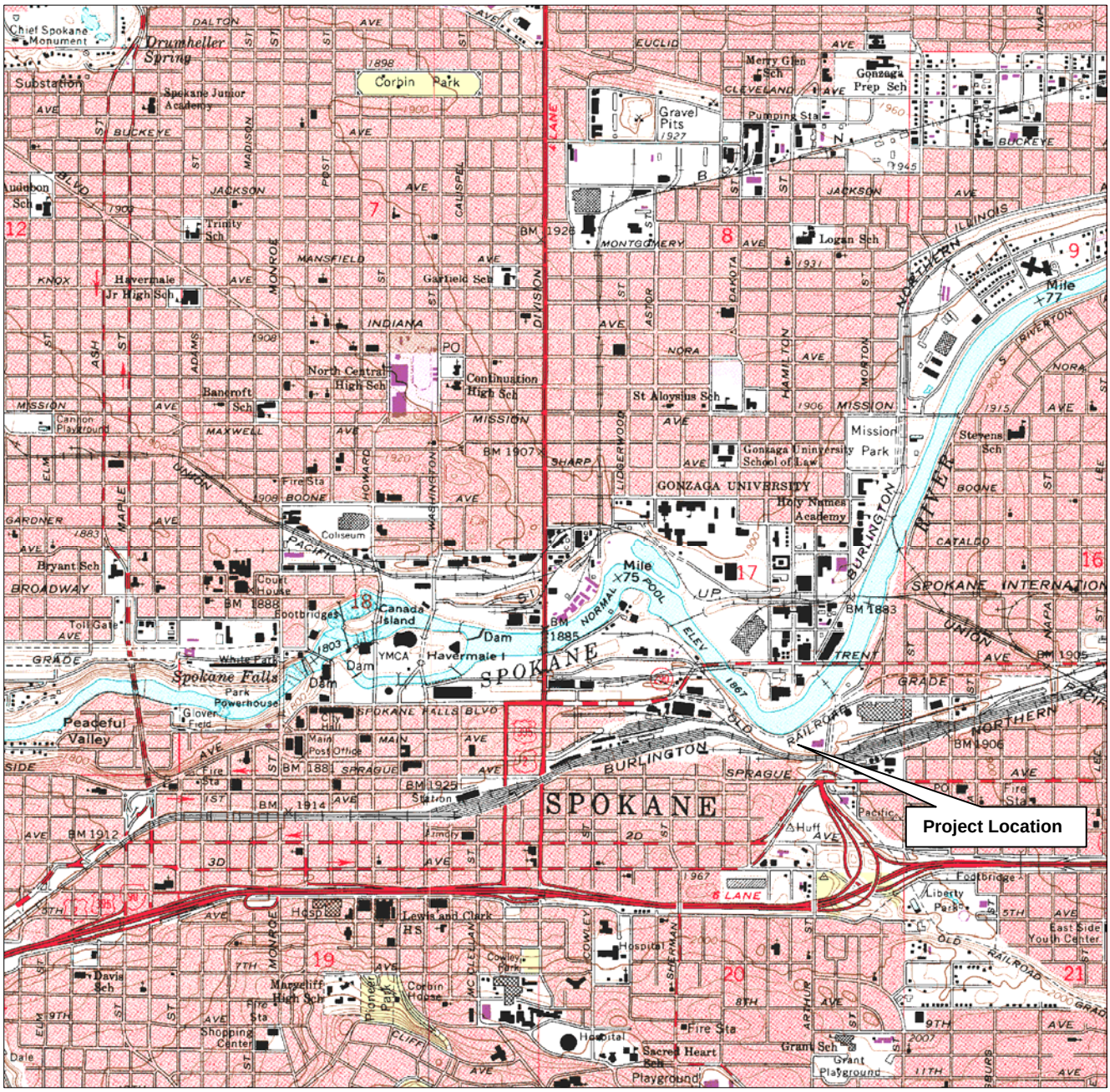
6.0 REFERENCES

Avista. 2010. Letter: Hamilton Street Bridge Cleanup Site #3509. From Hank Nelson, Avista Corporation, to Teresita Bala, Washington State Department of Ecology. December 1.

Ecology. 2010. Periodic Review Hamilton Street Bridge Site Facility/Site ID# 84461527 Cleanup Site ID# 3509. Washington State Department of Ecology. August.

Ecology. 2015. Second Periodic Review Hamilton Street Bridge Site Facility/Site ID# 84461527 Cleanup Site ID# 3509. Washington State Department of Ecology. October.

LAI. 2003. Compliance Monitoring Plan, Hamilton Street Bridge Site, Spokane, Washington. Landau Associates, Inc. June.



Source: USGS Spokane NW, WA Quad, 1974; PR 1986. Scale 1:24,000

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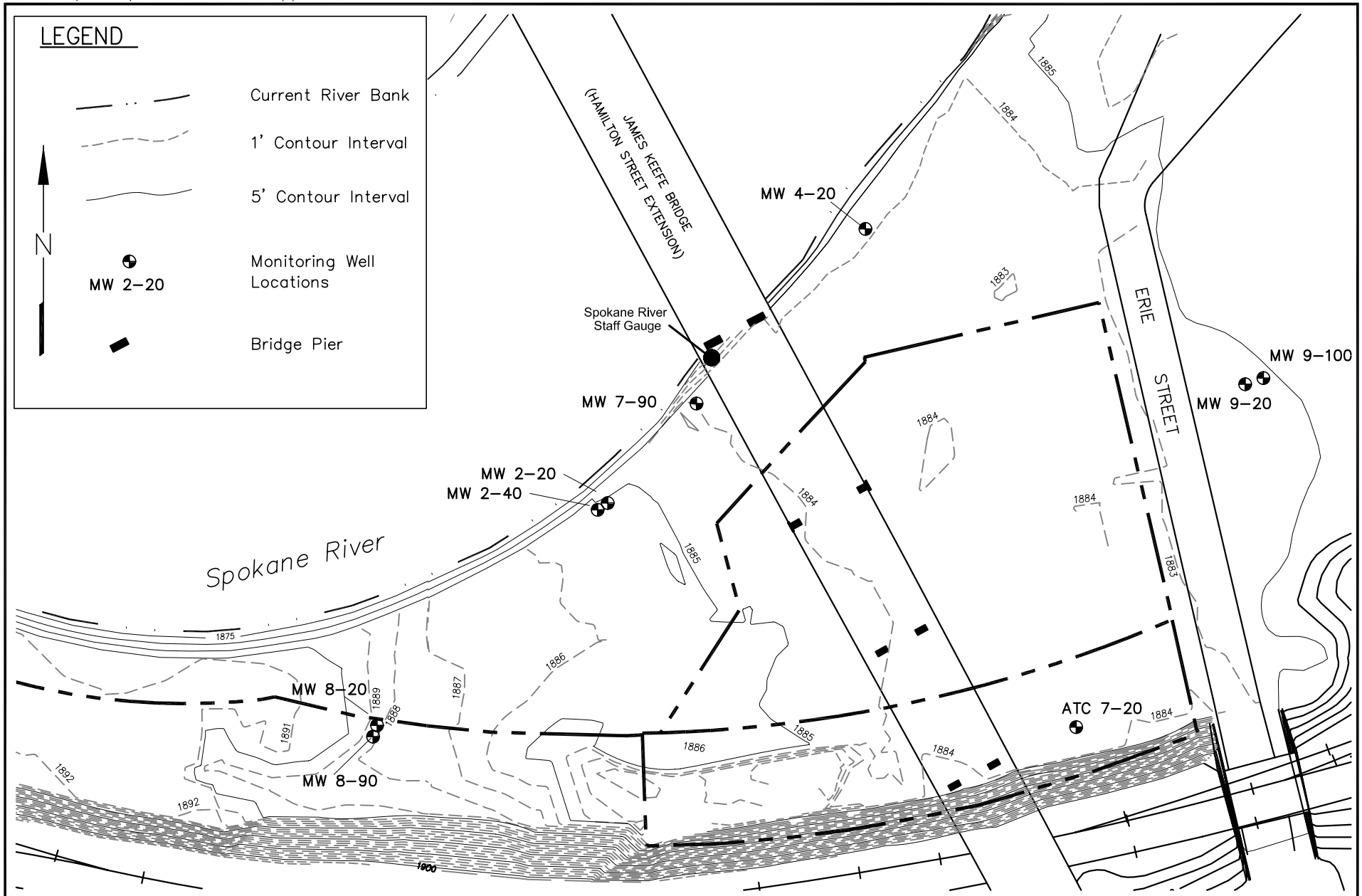
Hamilton Street Bridge Site Spokane, Washington	**Site Location Map**	Figure 1



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Hamilton Street Bridge Site
Spokane, Washington

Compliance Groundwater Monitoring Well Location Map

Figure 2

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
Hamilton Street Bridge Site
Spokane, Washington

	Shallow Monitoring Wells										Deep Monitoring Wells							
Monitoring Well	MW02-20		MW04-20		MW08-20		MW09-20		ATC7-20		MW07-90		MW08-90		MW09-100		Spokane River	
TOC Elevation (ft)	1,888.42		1,887.44		1,892.06		1,887.59		1,886.76		1,887.21		1,895.26		1,887.44		1,875.23	
Date Measured	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
1/31/2006	16.08	1,872.34	14.57	1,872.87	19.64	1,872.42	12.91	1,874.68	13.68	1,873.08	14.24	1,872.97	19.12	1,876.14	13.63	1,873.81	4.58	1,870.65
8/8/2006	17.92	1,870.50	18.61	1,868.83	21.22	1,870.84	NM	NM	18.09	1,868.67	18.43	1,868.78	23.26	1,872.00	NM	NM	2.68	1,872.55
2/12/2007	17.56	1,870.86	17.01	1,870.43	21.05	1,871.01	15.55	1,872.04	16.33	1,870.43	16.74	1,870.47	21.62	1,873.64	16.24	1,871.20	3.32	1,871.91
9/6/2007	18.03	1,870.39	19.08	1,868.36	21.51	1,870.55	17.85	1,869.74	18.60	1,868.16	18.92	1,868.29	23.76	1,871.50	18.59	1,868.85	2.60	1,872.63
2/13/2008	17.56	1,870.86	17.72	1,869.72	21.03	1,871.03	16.31	1,871.28	17.09	1,869.67	17.48	1,869.73	22.34	1,872.92	17.02	1,870.42	3.15	1,872.08
9/10/2008	17.76	1,870.66	18.16	1,869.28	21.26	1,870.80	16.95	1,870.64	17.73	1,869.03	18.00	1,869.21	22.87	1,872.39	17.70	1,869.74	2.85	1,872.38
2/5/2009	17.55	1,870.87	16.14	1,871.30	20.96	1,871.10	15.27	1,872.32	15.39	1,871.37	15.86	1,871.35	20.86	1,874.40	14.56	1,872.88	3.4	1,871.83
8/19/2009	17.96	1,870.46	18.10	1,869.34	21.40	1,870.66	16.85	1,870.74	17.62	1,869.14	17.91	1,869.30	22.80	1,872.46	17.59	1,869.85	2.73	1,872.50
3/25/2010	17.55	1,870.87	17.42	1,870.02	21.03	1,871.03	15.95	1,871.64	16.73	1,870.03	17.16	1,870.05	22.04	1,873.22	16.66	1,870.78	3.18	1,872.05
8/17/2010	19.92	1868.5	19.25	1,868.19	21.75	1,870.31	17.87	1,869.72	18.67	1,868.09	19.04	1,868.17	23.88	1,871.38	18.59	1,868.85	12.42	1,862.81
2/3/2011	15.14	1873.28	13.05	1,874.39	18.56	1,873.50	11.22	1,876.37	12.15	1,874.61	12.81	1,874.40	17.74	1,877.52	11.94	1,875.50	5.81	1,869.42
9/22/2011	18.54	1869.88	18.26	1,869.18	21.73	1,870.33	16.9	1,870.69	17.71	1,869.05	18.20	1,869.01	22.87	1,869.20	17.61	1,869.83	2.45	1,872.78
2/28/2012	17.39	1871.03	17.38	1,870.06	20.8	1,871.26	15.83	1,871.76	16.51	1,870.25	16.94	1,870.27	21.77	1,870.30	16.48	1,870.96	3.40	1,871.83
9/5/2012	18.09	1870.33	18.13	1,869.31	21.5	1,870.56	16.9	1,870.69	17.70	1,869.06	17.96	1,869.25	22.81	1,869.26	17.62	1,869.82	2.60	1,872.63
2/20/2013	17.38	1871.04	16.48	1,870.96	20.74	1,871.32	15.18	1,872.41	15.82	1,870.94	16.23	1,870.98	21.11	1,870.96	15.70	1,871.74	3.41	1,871.82
9/5/2013	18.07	1870.35	18.59	1,868.85	21.43	1,870.63	17.29	1,870.30	18.08	1,868.68	18.37	1,868.84	23.21	1,868.86	18.00	1,869.44	2.68	1,872.55
3/20/2014	13.08	1875.34	11.72	1,875.72	16.43	1,875.63	10.12	1,877.47	10.98	1,875.78	11.48	1,875.73	16.40	1,875.67	10.81	1,876.63	7.80	1,867.43
9/10/2014	18.00	1870.42	18.35	1,869.09	21.35	1,870.71	17.13	1,870.46	17.90	1,868.86	18.17	1,869.04	23.03	1,869.04	17.81	1,869.63	2.75	1,872.48
3/2/2015	16.23	1872.19	14.13	1,873.31	19.58	1,872.48	12.33	1,875.26	13.20	1,873.56	13.75	1,873.46	18.68	1,873.39	13.01	1,874.43	4.62	1,870.61
9/28/2015	18.08	1870.34	19.02	1,868.42	21.42	1,870.64	17.82	1,869.77	18.60	1,868.16	18.87	1,868.34	23.74	1,868.33	18.52	1,868.92	2.70	1,872.53
3/3/2016	15.63	1872.79	13.96	1,873.48	19.01	1,873.05	12.31	1,875.28	13.16	1,873.60	13.65	1,873.56	18.56	1,873.51	12.44	1,875.00	5.28	1,869.95
9/13/2016	19.34	1869.08	--	--	22.05	1,870.01	17.97	1,869.62	18.76	1,868.00	19.09	1,868.12	27.15	1,868.11	18.67	1,868.77	1.42	1,873.81
4/18/2017	8.03	1880.39	7.30	1,880.14	11.34	1,880.72	5.83	1,881.76	6.64	1,880.12	7.16	1,880.05	15.24	1,880.02	6.52	1,880.92	12.36	1,862.87

Notes:

NM = Not Measured

TOC = Top of Casing

Depth measured in ft below TOC

-- = Dry monitoring well

Monitoirng well MW8-90 TOC elevation resurveyed on October 10, 2016. The revised elevation applies to depth-to-groundwater measurements recorded after March, 3, 2016.

TABLE 2
SUMMARY OF GROUNDWATER CHEMISTRY DATA
FIELD PARAMETERS
HAMILTON STREET BRIDGE SITE
SPOKANE, WASHINGTON

Location	Date Measured	Field Parameters			
		pH	Temp (°C)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW02-20	3/23/2017	6.10	3.99	57	7.67
MW04-20	3/23/2017	6.78	3.89	76.0	6.2
MW02-40	3/23/2017	6.46	8.65	356	2.1
MW07-90	3/24/2017	7.24	10.57	413	2.53
ATC7-20	3/24/2017	6.61	7.70	352	2.20

Notes:

Values are final measurements recorded during purging
µS/cm = microSiemens per centimeter
NTU = nephelometric turbidity units
-- = Dry monitoring well

TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW02-20	2/1/2006	0.0001 U	0.00100 U	--	0.00500 U
	8/9/2006*	0.0001 U	0.00100 U	--	0.0100 U
	2/13/2007*	0.0001 U	0.00108	--	0.0100 U
	9/6/2007*	0.000149 J	0.00105	--	0.0100 U
	2/13/2008*	0.0001 U	0.00140	--	0.0100 U
	9/10/2008	0.000152	0.00957	--	0.00500 U
	2/6/2009	0.0002 U	0.00100 U	--	0.00500 U
	8/20/2009	0.000201	0.00251	--	0.00500 U
	3/26/2010	0.0002 U	0.0001 U	--	0.00500 U
	8/18/2010	0.0002 U	0.001 U	--	0.00500 U
	2/4/2011	0.0002 U	0.001 U	0.001 U	0.00500 U
	9/23/2011	0.0002 U	0.00134	0.00140	0.00500 U
	2/29/2012	0.0002 U	0.0010 U	0.0010 U	0.00500 U
	9/6/2012	0.0002 U	0.0010	0.0010 U	0.00500 U
	2/21/2013	0.0002 U	0.0010 U	0.0010 U	0.0050 U
	9/6/2013	0.0002 U	0.0011	0.0010 U	0.0050 U
	3/21/2014	0.0002 U	0.0010 U	0.0010 U	0.0050 U
	9/10/2014	0.0002 U	0.0013	0.0015	0.0050 U
	3/3/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
	9/28/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
	3/4/2016	0.0002 U	0.0020 U	0.0020 U	0.042
	9/13/2016	0.0002 U	0.0011	0.0010 U	0.010 U
	3/23/2017	0.0002 U	0.0010 U	0.0010 U	0.010 U
MW02-40	2/1/2006	0.0001 U	0.00158	--	0.00500 U
	8/9/2006*	0.0001 U	0.00100 U	--	0.0100 U
	2/13/2007	0.0001 U	0.00155	--	0.0100 U
	9/6/2007	0.000171 J	0.00115	--	0.0100 U
	2/13/2008	0.0001 U	0.00167	--	0.0100 U
	9/10/2008	0.0001 U	0.00145	--	0.00500 U
	2/6/2009	0.0002 U	0.00125	--	0.00500 U
	8/20/2009	0.0002 U	0.00121	--	0.00500 U
	3/26/2010	0.0002 U	0.00113	--	0.00500 U
	8/18/2010	0.0002 U	0.00125	--	0.00500 U
	2/4/2011	0.0002 U	0.00126	0.00115	0.00500 U
	9/23/2011	0.0002 U	0.00140	0.00143	0.00500 U
	2/29/2012	0.0002 U	0.0013	0.0012	0.00500 U
	9/6/2012	0.0002 U	0.0017	0.0016	0.00500 U
	2/21/2013	0.0002 U	0.0023	0.0027	0.0050 U
	9/6/2013	0.0002 U	0.0012	0.0011	0.0050 U
	3/21/2014	0.0002 U	0.0013	0.0014	0.0050 U
	9/10/2014	0.0002 U	0.0016	0.0015	0.0050 U
	3/3/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
	9/28/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
	3/3/2016	0.0002 U	0.0020 U	0.0020 U	0.013
	9/13/2016	0.0002 U	0.0013	0.0014	0.010 U
	3/23/2017	0.0002 U	0.0013	0.0014	0.010 U
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW04-20	2/1/2006	0.0001 U	0.00354	--	0.0408
	8/10/2006*	0.0001 U	0.00372	--	0.0100 U
	2/13/2007*	0.0001 U	0.00500	--	0.0100 U
	9/6/2007*	0.000145 J	0.00393	--	0.0100 U
	2/13/2008	0.000152	0.00726	--	0.0100 U
	9/10/2008	0.000114	0.0235	--	0.00500 U
	2/6/2009	0.000118	0.00580	--	0.00850
	8/20/2009	0.0002 U	0.0258	--	0.00500 U
	3/26/2010	0.0002 U	0.00211	--	0.00500 U
	8/18/2010	0.0002 U	0.00528	--	0.00500 U
	2/4/2011	0.0002 U	0.00272	0.00252	0.01920
	9/23/2011	0.0002 U	0.00344	0.00338	0.00500 U
	2/29/2012	0.0002 U	0.0025	0.0026	0.00500 U
	9/6/2012	0.0002 U	0.0034	0.0016	0.00500 U
	2/21/2013	0.0002 U	0.0025	0.0026	0.0053
	9/6/2013	0.0002 U	0.0034	0.0034	0.0050 U
	3/21/2014	0.0002 U	0.0030	0.0029	0.0050 U
	9/10/2014	0.0002 U	0.0035	0.0037	0.0050 U
	3/3/2015	0.0002 U	0.0027	0.0026	0.100 UJ
	9/28/2015	0.0002 U	0.0033	0.0032	0.010 U
	3/3/2016	0.0002 U	0.0020 U	0.0026	0.031
	9/13/2016(c)	--	--	--	--
	3/23/2017	0.0002 U	0.0030	0.0029	0.010 U
ATC7-20	2/1/2006	0.0001 U	0.00740	--	0.00500 U
Duplicate	2/1/2006	0.0001 U	0.00746	--	0.00500 U
	8/10/2006*	0.0001 U	0.00481	--	0.0100 U
	2/13/2007	0.0001 U	0.00716	--	0.0100 U
	9/6/2007*	0.000147 J	0.00427	--	0.0100 U
	2/13/2008	0.0001 U	0.00549	--	0.0100 U
	9/10/2008	0.0001 U	0.00564	--	0.00500 U
	2/6/2009	0.000079	0.00469	--	0.00500 U
	8/20/2009	0.0002 U	0.00959	--	0.00500 U
	3/26/2010	0.0002 U	0.00423	--	0.00500 U
	8/18/2010	0.0002 U	0.00480	--	0.00500 U
	2/4/2011	0.0002 U	0.00598	0.00579	0.00500 U
	9/23/2011	0.0002 U	0.00523	0.00553	0.00500 U
	2/29/2012	0.00025 U	0.0051	0.0051	0.00500 U
	9/6/2012	0.0002 U	0.0059	0.0055	0.00500 U
	2/21/2013	0.0002 U	0.0053	0.0058	0.0050 U
	9/6/2013	0.0002 U	0.0043	0.0044	0.0050 U
	3/21/2014	0.0002 U	0.0052	0.0059	0.0050 U
	9/10/2014	0.0002 U	0.0048	0.0048	0.0050 U
	3/3/2015	0.0002 U	0.0067	0.0068	0.010 U
	9/28/2015	0.0002 U	0.0036	0.0036	0.010 U
	3/3/2016	0.0002 U	0.0035	0.0060	0.010 U
	9/13/2016	0.0002 U	0.0039	0.0039	0.010 U
	3/24/2017	0.0002 U	0.0060	0.0057	0.010 R
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW07-90	2/1/2006	0.0001 U	0.00703	--	0.00500 U
	8/9/2006	0.0001 U	0.00571	--	0.0100 U
Duplicate	8/9/2006	0.0001 U	0.00600	--	0.0100 U
	2/13/2007	0.0001 U	0.00547	--	0.0100 U
Duplicate	2/13/2007	0.0001 U	0.00517	--	0.0100 U
	9/6/2007	0.000152 J	0.00796	--	0.0100 U
Duplicate	9/6/2007	0.000173 J	0.00815	--	0.0100 U
	2/13/2008	0.0001 U	0.00725	--	0.0100 U
Duplicate	2/13/2008	0.0001 U	0.00907	--	0.0100 U
	9/10/2008	0.0001 U	0.00508	--	0.0051
Duplicate	9/10/2008	0.0001 U	0.00530	--	0.0058
	2/6/2009	0.0002 U	0.00477	--	0.00500 U
Duplicate	2/6/2009	0.0002 U	0.00484	--	0.00500 U
	8/20/2009	0.0002 U	0.00469	--	0.00500 U
Duplicate	8/20/2009	0.0002 U	0.00466	--	0.00670
	3/26/2010	0.0002 U	0.00443	--	0.00500 U
Duplicate	3/26/2010	0.0002 U	0.00443	--	0.00500 U
	8/18/2010	0.0002 U	0.00492	--	0.00500 U
Duplicate	8/18/2010	0.0002 U	0.00474	--	0.00500 U
	2/4/2011	0.0002 U	0.00490	0.00489	0.00500 U
Duplicate	2/4/2011	0.0002 U	0.00524	0.00498	0.00500 U
	9/23/2011	0.0002 U	0.00479	0.00530	0.00500 U
Duplicate	9/23/2011	0.0002 U	0.00503	0.00515	0.00500 U
	2/29/2012	0.0002 U	0.0048	0.0050	0.00500 U
Duplicate	2/29/2012	0.0002 U	0.0047	0.0049	0.00500 U
	9/6/2012	0.0002 U	0.0057	0.0055	0.00500 UJ
Duplicate	9/6/2012	0.0002 U	0.0052	0.0054	0.03000 J
	2/21/2013	0.0002 U	0.0049	0.0045	0.0050 U
Duplicate	2/21/2013	0.0002 U	0.0046	0.0049	0.0050 U
	9/6/2013	0.0002 U	0.0055	0.0057	0.0050 U
Duplicate	9/6/2013	0.0002 U	0.0055	0.0054	0.0050 U
	3/21/2014	0.0002 U	0.0051	0.0055	0.0050 U
Duplicate	3/21/2014	0.0002 U	0.0049	0.0055	0.0050 U
	9/10/2014	0.0002 U	0.0065	0.0060	0.0050 U
Duplicate	9/10/2014	0.0002 U	0.0060	0.0062	0.0050 U
	3/3/2015	0.0002 U	0.0058	0.0055	0.010 U
Duplicate	3/3/2015	0.0002 U	0.0061	0.0055	0.010 U
	9/28/2015	0.0002 U	0.0045	0.0042	0.010 U
Duplicate	9/28/2015	0.0002 U	0.0046	0.0039	0.010 U
	3/4/2016	0.0002 U	0.0028	0.0051	0.010 U
Duplicate	3/4/2016	0.0002 U	0.0026	0.0120	0.010 U
	9/13/2016	0.0002 U	0.0048	0.0047	0.010 U
Duplicate	9/13/2016	0.0002 U	0.0044	0.0046	0.010 U
	3/24/2017	0.0002 U	0.0046	0.0044	0.010 U
Duplicate	3/24/2017	0.0002 U	0.0047	0.0045	0.010 U
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

Notes:

Duplicate sample ID = MW20-60

Concentrations boxed and shaded are at or above site cleanup levels.

* Sample field filtered
-- = not analyzed.

NS = not specified.

U = Indicates the compound was analyzed for, but was not detected at the given reporting limit.

UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Indicates the compound was detected, the reported sample concentration is an estimate.

(a) Weak Acid Dissociable (WAD) Cyanide analyzed by SM4500-CN-I.

(b) Final Cleanup Action Plan (Ecology 2001).

(c) Well is dry; groundwater sample not collected.

R = The data are unusable. The sample results are rejected due to deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

TABLE 4

SUMMARY OF GROUNDWATER CHEMISTRY DATA

POLYCYCLIC AROMATIC HYDROCARBONS

Hamilton Street Bridge Site

Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																		
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	Toxicity Equivalent Concentration(c)
MW02-20	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.107 J	0.126 J	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.126 J	0.100 UJ	0.100 UJ	**0.13**
	2/13/2008	0.146	NA	0.100 U	0.117	0.100 U	0.100 U	0.243	0.126	1.05	1.04	1.50	0.932	1.05	0.748	1.16	0.893	0.816	0.272	**1.30**
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0943	0.100 U	0.100 U	0.09
	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.095	0.100 U	0.438	0.229 U	0.410	0.390	0.410	0.724	0.267 U	0.543 U	0.219 U	0.114 U	**0.66**
	8/20/2009	0.500 U	NA	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	1.32	1.35	1.24	1.30	1.57	2.92	0.500 U	1.89	1.16	0.500 U	**2.44**
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0096 UJ	0.0096 UJ	0.012 UJ	0.0096 UJ	0.0096 U	0.0096 U	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 U	0.0096 UJ	0.019 UJ	0.0096 UJ	0.0096 UJ	ND
	9/6/2013	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	ND
	3/21/2014	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	ND
	9/10/2014	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	ND
	3/3/2015	0.083 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	ND
	9/28/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/4/2016	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	ND
	9/13/2016	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	ND
	3/23/2017	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

TABLE 4

SUMMARY OF GROUNDWATER CHEMISTRY DATA

POLYCYCLIC AROMATIC HYDROCARBONS

Hamilton Street Bridge Site

Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																			Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	
MW02-40	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.115	0.375	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.125	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	9.39	26.9 J	5.82	0.858	0.179	0.123	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0943 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0120	0.0100 U	0.013 U	0.0110	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	16 J	21 J	0.070 J	34 J	11	0.50	3.9 J	0.30 J	0.11 J	0.0097 UJ	0.11 J	0.0097 UJ	0.0097 UJ	0.0097 U	0.0097 UJ	0.019 UJ	0.0097 UJ	0.0097 UJ	ND
	9/6/2013	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	ND
	3/21/2014	17.0	31.8	1.85	42.3	14.5	2.82	0.625	0.115	0.0961 U	0.0961	0.154	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	ND
	9/10/2014	0.176	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	ND
	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	9/28/2015	0.098	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/3/2016	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	ND
	9/13/2016	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	ND
	3/23/2017	0.083 U	0.083 U	0.083 U	0.16	0.21	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																		Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	
MW04-20	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/10/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0097 U	0.0097 U	0.013 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 UJ	0.0097 U	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.019 UJ	0.0097 UJ	0.0097 UJ	ND
	9/6/2013	0.0967 U	0.0967 U	0.097 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.0967 U	0.097 U	0.0967 U	0.0967 U	ND
	3/21/2014	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	0.0964 U	ND
	9/10/2014	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	0.0905 U	ND
	3/3/2015	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	ND
	9/28/2015	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	ND
	3/3/2016	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	ND
	9/13/2016(c)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/23/2017	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

TABLE 4

SUMMARY OF GROUNDWATER CHEMISTRY DATA

POLYCYCLIC AROMATIC HYDROCARBONS

Hamilton Street Bridge Site

Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																		
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	Toxicity Equivalent Concentration(c)
ATC7-20	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/10/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.263	0.105 U	0.295	0.253	0.105 U	0.179	0.389	0.105	0.105 U	0.105 U	0.116	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0095 UJ	0.0095 UJ	0.012 UJ	0.0095 UJ	0.0095 U	0.0095 U	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 U	0.0095 UJ	0.019 UJ	0.0095 UJ	0.0095 UJ	ND
	9/6/2013	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	ND
	3/21/2014	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	ND
	9/10/2014	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	ND
	3/3/2015	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	ND
	9/28/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/3/2016	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	ND
	9/13/2016	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/24/2017	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																		
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	Toxicity Equivalent Concentration(c)
MW07-90	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.107	0.01
Duplicate	8/9/2006	0.100 U	NA	0.100 U	0.107	0.117	0.136	0.165	0.146	0.155	0.214 J	0.204 J	0.194	0.117	0.214 J	0.175	0.194	0.214 J	0.184	**0.29**
	2/13/2007	0.100 U	NA	0.100 U	0.117	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/13/2007	0.100 U	NA	0.100 U	0.126	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	0.100 U	0.396 J	0.0966	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.105 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.124 U	0.124 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 UJ	0.105 UJ	0.105 UJ	0.105 UJ	0.105 U	0.105 UJ	0.105 UJ	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
Duplicate	9/23/2011	1.13 J	0.484 J	1.64 J	0.832 J	0.105 U	0.295 J	0.442 J	0.126	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

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Hamilton Street Bridge Site
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Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																			
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo {g,h,i} perylene	Pyrene	Benzo {a} anthracene(b)	Chrysene(b)	Benzo {b} fluoranthene(b)	Benzo {k} fluoranthene(b)	Benzo {a} pyrene(b)	Indeno {1,2,3-cd} pyrene(b)	Dibenz {a,h} anthracene(b)	Toxicity Equivalent Concentration(c)
MW07-90 Contin.																					
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
Duplicate	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
Duplicate	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0097 UJ	0.010	0.013 UJ	0.014 J	0.0097 U	0.0097 U	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 U	0.0097 UJ	0.019 UJ	0.0097 UJ	0.0097 UJ	ND
Duplicate	2/21/2013	0.0098 UJ	0.0098 UJ	0.013 UJ	0.0098 UJ	0.0098 UJ	0.0098 U	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 U	0.0098 UJ	0.020 UJ	0.0098 UJ	0.0098 UJ	ND
	9/6/2013	0.0974 U	0.0974 U	0.097 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	ND
Duplicate	9/6/2013	0.0977 U	0.0977 U	0.098 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	ND
	3/21/2014	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	ND
Duplicate	3/21/2014	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	ND
	9/10/2014	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0940	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.292 J	0.0899 U	0.0899 U	0.102	0.0899 U	0.0899 U	0.0899 U	**0.1J**
Duplicate	9/10/2014	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 UJ	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	ND
	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
Duplicate	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	9/28/2015	0.22	0.45	0.083 U	0.19	2.0	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
Duplicate	9/28/2015	0.24	0.48	0.083 U	0.21	2.2	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/4/2016	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	ND
Duplicate	3/4/2016	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	0.045 U	ND
	9/13/2016	2.3 J	3.8	0.083 U	0.34	4.0	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
Duplicate	9/13/2016	3.0 J	4.0	0.083 U	0.34	3.9	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/24/2017	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	ND
Duplicate	3/24/2017	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	ND
												Toxicity Equivalency Factor(d)	0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

Notes:

NA = not analyzed, NS = Not Specified

U = Indicates the compound was analyzed for, but was not detected at the given detection limit. Values may be rounded.

J = Indicates the compound was detected, the reported sample concentration is an estimate.

Concentrations in bold are detected above the laboratory quantitation limit.

Concentration boxed and shaded are at or above the site cleanup level

(a) Polycyclic Aromatic Hydrocarbons (PAH) analyzed by EPA Method 8270-SIM.

(b) Carcinogenic PAH (cPAH).

(c) Well is dry; groundwater sample not collected.

(c) Calculated in accordance with WAC 173-340-708(8).

(d) Toxicity Equivalency Factors for cPAHs, WAC 173-340 (Ecology 2007).

(e) Final Cleanup Action Plan (Ecology 2001).

Duplicate Sample ID = MW20-60

Laboratory Data Sheets and Chain-of-Custody Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

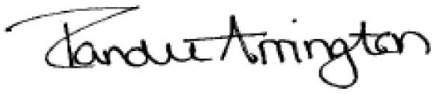
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: 590-5759-1
Client Project/Site: Avista Hamilton St. Bridge

For:
Landau & Associates, Inc.
10 North Post Street, Suite 218
Spokane, Washington 99201

Attn: Mr. Ryan Reich



Authorized for release by:
4/10/2017 9:01:27 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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

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

Table of Contents

Job ID: 590-5759-1

Laboratory: TestAmerica Spokane

Narrative

Receipt
The samples were received on 3/27/2017 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4º C.

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

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

General Chemistry
Method SM 4500 CN I: The matrix spike (MS) recovery for preparation batch 490-419209 and analytical batch 490-420112 was outside control limits. Matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

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

Sample Summary

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-5759-1	MW4-20-032317	Water	03/23/17 14:20	03/27/17 09:00
590-5759-2	MW2-40-032317	Water	03/23/17 16:40	03/27/17 09:00
590-5759-3	MW2-20-032317	Water	03/23/17 18:30	03/27/17 09:00
590-5759-4	MW20-60-032417	Water	03/24/17 12:45	03/27/17 09:00
590-5759-5	MW7-90-032417	Water	03/24/17 14:55	03/27/17 09:00
590-5759-6	ATC7-20-032417	Water	03/24/17 16:40	03/27/17 09:00

TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Shane Kostka	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-2349-808.1
Client Contact: Mr. Ryan Reich	Phone: 208-819-1965	E-Mail: randee.arrington@testamericainc.com		Page: Page 1 of 1
Company: Landau & Associates, Inc.				Job #:
Address: 10 North Post Street, Suite 218	Due Date Requested:			
City: Spokane	TAT Requested (days): Standard			
State, Zip: WA, 99201				
Phone: 509-995-1665(Tel)	PO #: Purchase Order not required			
Email: rreich@landauinc.com	WO #:			
Project Name: Avista Hamilton St. Bridge	Project #: 59000367			
Site:	SSOW#:			

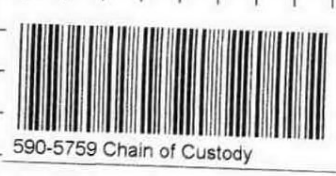
Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_CN_I - Cyanide, Weak Acid Dissociable	200.8_CWA_LL - As	200.8_CWA_LL - As	8270D_SIM - Polycyclic Aromatic Hydrocarbons	245.1 - Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	D	N	N	D		
MW4-20-032317	3/23/17	14:20		Water			X	X	X	X	X	5	As QL = 1 ug/L
MW2-40-032317	↓	16:40		Water			↓	↓	↓	↓	↓	↓	Hg QL = 0.1 ug/L
MW2-20-032317	↓	18:30		Water			↓	↓	↓	↓	↓	↓	PAH QL = 0.1 ug/L
MW20-60-032417	3/24/17	12:45		Water			↓	↓	↓	↓	↓	↓	Cyanide QL = 10 ug/L
MW7-40-032417	↓	14:55		Water			↓	↓	↓	↓	↓	↓	
ATC7-20-032417	↓	16:40		Water			↓	↓	↓	↓	↓	↓	



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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	3/27/17, 9:00	LAI	Matthew Mathsuda	3.27.17 0900	TestAmerica Inc
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.4°C (IR GUN)

4/10/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

590-5759 Chain of Custody

Cooler Received/Opened On 3/28/2017 @0900

Time Samples Removed From Cooler 1330 Time Samples Placed In Storage 1405 (2 Hour Window)

1. Tracking # 6465 (last 4 digits, FedEx) Courier: FEDEX

IR Gun ID_97310166 pH Strip Lot HC693124 Chlorine Strip Lot 110116F

2. Temperature of rep. sample or temp blank when opened: 1.0 *Degrees Celsius*

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

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

If yes, how many and where: Front

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BIS = Broken in shipment

TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

590-5759

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	IC No: 0-2567.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: randee.arrington@testamericainc.com	State of Origin: Washington — Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State Program - Washington	Job #: 590-5759-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 4/6/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Avista Hamilton St. Bridge	Project #: 59000367		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_CN_I/4500_CN_I_Prep Weak Acid Dissociable Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW4-20-032317 (590-5759-1)	3/23/17	14:20 Pacific		Water			X	1	
MW2-40-032317 (590-5759-2)	3/23/17	16:40 Pacific		Water			X	1	
MW2-20-032317 (590-5759-3)	3/23/17	18:30 Pacific		Water			X	1	
MW20-60-032417 (590-5759-4)	3/24/17	12:45 Pacific		Water			X	1	
MW7-90-032417 (590-5759-5)	3/24/17	14:55 Pacific		Water			X	1	
ATC7-20-032417 (590-5759-6)	3/24/17	16:40 Pacific		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Randee Arrington	Date/Time: 3/27/17 1500	Company TestAmerica	Received by:	Date/Time: 3/28/17 @ 0900	Company TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.0

4/10/2017

TestAmerica Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-2568.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: randee.arrington@testamericainc.com	State of Origin: Washington	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		Job #: 590-5759-1
Address: 5755 8th Street East,	Due Date Requested: 4/6/2017			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel) 253-922-5047(Fax)	PO #:			
Email:	WO #:			
Project Name: Avista Hamilton St. Bridge	Project #: 59000367			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.8_CWA_LL/200.8_P_TOT (MOD) Total Arsenic	200.8_CWA_LL/FILTRATION (MOD) Dissolved Arsenic	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW4-20-032317 (590-5759-1)	3/23/17	14:20 Pacific		Water			X	X	2	
MW2-40-032317 (590-5759-2)	3/23/17	16:40 Pacific		Water			X	X	2	
MW2-20-032317 (590-5759-3)	3/23/17	18:30 Pacific		Water			X	X	2	
MW20-60-032417 (590-5759-4)	3/24/17	12:45 Pacific		Water			X	X	2	
MW7-90-032417 (590-5759-5)	3/24/17	14:55 Pacific		Water			X	X	2	
ATC7-20-032417 (590-5759-6)	3/24/17	16:40 Pacific		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Randee Arrington	3/27/17 1525	TestAmerica	[signature]	3/28/17 0925	TA-Sea

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: TR4 1.2/1.8 w/ks

Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 590-5759-1

Login Number: 5759

List Source: TestAmerica Spokane

List Number: 1

Creator: Williams, Chris B

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

Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 590-5759-1

Login Number: 5759
List Number: 2
Creator: Vest, Laura E

List Source: TestAmerica Nashville
List Creation: 03/28/17 02:01 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 590-5759-1

Login Number: 5759
List Number: 3
Creator: Ponce-McDermott, Monica

List Source: TestAmerica Seattle
List Creation: 03/29/17 12:59 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR4 1.2/1.8 w/cs
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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

Client Sample ID: MW4-20-032317
Date Collected: 03/23/17 14:20
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
2-Methylnaphthalene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
1-Methylnaphthalene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Acenaphthylene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Acenaphthene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Fluorene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Phenanthrene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Anthracene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Fluoranthene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Pyrene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Benzo[a]anthracene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Chrysene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Benzo[b]fluoranthene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Benzo[k]fluoranthene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Benzo[a]pyrene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Indeno[1,2,3-cd]pyrene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Dibenz(a,h)anthracene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1
Benzo[g,h,i]perylene	ND		0.082		ug/L		03/30/17 09:25	03/30/17 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83*		*45 - 126*	*03/30/17 09:25*	*03/30/17 13:02*	*1*
2-Fluorobiphenyl (Surr)	*77*		*44 - 120*	*03/30/17 09:25*	*03/30/17 13:02*	*1*
p-Terphenyl-d14	*88*		*51 - 121*	*03/30/17 09:25*	*03/30/17 13:02*	*1*

Client Sample ID: MW2-40-032317
Date Collected: 03/23/17 16:40
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
2-Methylnaphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
1-Methylnaphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Acenaphthylene	**0.16**		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Acenaphthene	**0.21**		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Fluorene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Phenanthrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Benzo[a]anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Chrysene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Benzo[b]fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Benzo[k]fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Benzo[a]pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Indeno[1,2,3-cd]pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Dibenz(a,h)anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1
Benzo[g,h,i]perylene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*45 - 126*	*03/30/17 09:25*	*03/30/17 13:29*	*1*
2-Fluorobiphenyl (Surr)	*88*		*44 - 120*	*03/30/17 09:25*	*03/30/17 13:29*	*1*

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

Client Sample ID: MW2-40-032317
Date Collected: 03/23/17 16:40
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*95*		*51 - 121*	*03/30/17 09:25*	*03/30/17 13:29*	*1*

Client Sample ID: MW2-20-032317
Date Collected: 03/23/17 18:30
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
2-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
1-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Acenaphthylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Acenaphthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Fluorene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Phenanthrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Benzo[a]anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Chrysene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Benzo[b]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Benzo[k]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Benzo[a]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Indeno[1,2,3-cd]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Dibenz(a,h)anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1
Benzo[g,h,i]perylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*93*		*45 - 126*	*03/30/17 09:25*	*03/30/17 13:56*	*1*
2-Fluorobiphenyl (Surr)	*89*		*44 - 120*	*03/30/17 09:25*	*03/30/17 13:56*	*1*
p-Terphenyl-d14	*95*		*51 - 121*	*03/30/17 09:25*	*03/30/17 13:56*	*1*

Client Sample ID: MW20-60-032417
Date Collected: 03/24/17 12:45
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
2-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
1-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Acenaphthylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Acenaphthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Fluorene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Phenanthrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Benzo[a]anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Chrysene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Benzo[b]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Benzo[k]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Benzo[a]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Indeno[1,2,3-cd]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1

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

Client Sample ID: MW20-60-032417
Date Collected: 03/24/17 12:45
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1
Benzo[g,h,i]perylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*97*		*45 - 126*	*03/30/17 09:25*	*03/30/17 14:22*	*1*
2-Fluorobiphenyl (Surr)	*92*		*44 - 120*	*03/30/17 09:25*	*03/30/17 14:22*	*1*
p-Terphenyl-d14	*103*		*51 - 121*	*03/30/17 09:25*	*03/30/17 14:22*	*1*

Client Sample ID: MW7-90-032417
Date Collected: 03/24/17 14:55
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
2-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
1-Methylnaphthalene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Acenaphthylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Acenaphthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Fluorene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Phenanthrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Benzo[a]anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Chrysene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Benzo[b]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Benzo[k]fluoranthene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Benzo[a]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Indeno[1,2,3-cd]pyrene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Dibenz(a,h)anthracene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1
Benzo[g,h,i]perylene	ND		0.084		ug/L		03/30/17 09:25	03/30/17 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*100*		*45 - 126*	*03/30/17 09:25*	*03/30/17 14:49*	*1*
2-Fluorobiphenyl (Surr)	*100*		*44 - 120*	*03/30/17 09:25*	*03/30/17 14:49*	*1*
p-Terphenyl-d14	*102*		*51 - 121*	*03/30/17 09:25*	*03/30/17 14:49*	*1*

Client Sample ID: ATC7-20-032417
Date Collected: 03/24/17 16:40
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
2-Methylnaphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
1-Methylnaphthalene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Acenaphthylene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Acenaphthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Fluorene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Phenanthrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1

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

Client Sample ID: ATC7-20-032417 — **Lab Sample ID: 590-5759-6**
Date Collected: 03/24/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Chrysene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Benzo[b]fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Benzo[k]fluoranthene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Benzo[a]pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Indeno[1,2,3-cd]pyrene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Dibenz(a,h)anthracene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1
Benzo[g,h,i]perylene	ND		0.083		ug/L		03/30/17 09:25	03/30/17 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*93*		*45 - 126*	*03/30/17 09:25*	*03/30/17 15:15*	*1*
2-Fluorobiphenyl (Surr)	*88*		*44 - 120*	*03/30/17 09:25*	*03/30/17 15:15*	*1*
p-Terphenyl-d14	*90*		*51 - 121*	*03/30/17 09:25*	*03/30/17 15:15*	*1*

Method: 200.8 LL - Metals (ICP/MS)

Client Sample ID: MW4-20-032317 — **Lab Sample ID: 590-5759-1**
Date Collected: 03/23/17 14:20 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	**0.0030**		0.0010		mg/L		04/05/17 09:14	04/05/17 15:15	1

Client Sample ID: MW2-40-032317 — **Lab Sample ID: 590-5759-2**
Date Collected: 03/23/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	**0.0013**		0.0010		mg/L		04/05/17 09:14	04/05/17 15:19	1

Client Sample ID: MW2-20-032317 — **Lab Sample ID: 590-5759-3**
Date Collected: 03/23/17 18:30 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	ND		0.0010		mg/L		04/05/17 09:14	04/05/17 15:24	1

Client Sample ID: MW20-60-032417 — **Lab Sample ID: 590-5759-4**
Date Collected: 03/24/17 12:45 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	**0.0047**		0.0010		mg/L		04/05/17 11:31	04/06/17 09:42	1

Client Sample ID: MW7-90-032417 — **Lab Sample ID: 590-5759-5**
Date Collected: 03/24/17 14:55 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	**0.0046**		0.0010		mg/L		04/05/17 11:31	04/06/17 10:32	1

Client Sample ID: ATC7-20-032417 — **Lab Sample ID: 590-5759-6**
Date Collected: 03/24/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	**0.0060**		0.0010		mg/L		04/05/17 11:31	04/06/17 10:36	1

Method: 200.8 LL - Metals (ICP/MS) - Dissolved

Client Sample ID: MW4-20-032317 — **Lab Sample ID: 590-5759-1**
Date Collected: 03/23/17 14:20 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	0.0029		0.0010		mg/L		03/30/17 18:08	03/31/17 11:42	1

Client Sample ID: MW2-40-032317 — **Lab Sample ID: 590-5759-2**
Date Collected: 03/23/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	0.0014		0.0010		mg/L		03/30/17 18:08	03/31/17 12:59	1

Client Sample ID: MW2-20-032317 — **Lab Sample ID: 590-5759-3**
Date Collected: 03/23/17 18:30 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	ND		0.0010		mg/L		03/30/17 18:08	03/31/17 13:03	1

Client Sample ID: MW20-60-032417 — **Lab Sample ID: 590-5759-4**
Date Collected: 03/24/17 12:45 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	0.0045		0.0010		mg/L		03/30/17 18:08	03/31/17 13:08	1

Client Sample ID: MW7-90-032417 — **Lab Sample ID: 590-5759-5**
Date Collected: 03/24/17 14:55 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	0.0044		0.0010		mg/L		03/30/17 18:08	03/31/17 13:13	1

Client Sample ID: ATC7-20-032417 — **Lab Sample ID: 590-5759-6**
Date Collected: 03/24/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	0.0057		0.0010		mg/L		03/30/17 18:08	03/31/17 13:17	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: MW4-20-032317 — **Lab Sample ID: 590-5759-1**
Date Collected: 03/23/17 14:20 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:21	1

Client Sample ID: MW2-40-032317 — **Lab Sample ID: 590-5759-2**
Date Collected: 03/23/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:35	1

Client Sample ID: MW2-20-032317 — **Lab Sample ID: 590-5759-3**
Date Collected: 03/23/17 18:30 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:37	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: MW20-60-032417 — **Lab Sample ID: 590-5759-4**
Date Collected: 03/24/17 12:45 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:40	1

Client Sample ID: MW7-90-032417 — **Lab Sample ID: 590-5759-5**
Date Collected: 03/24/17 14:55 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:42	1

Client Sample ID: ATC7-20-032417 — **Lab Sample ID: 590-5759-6**
Date Collected: 03/24/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:44	1

General Chemistry

Client Sample ID: MW4-20-032317 — **Lab Sample ID: 590-5759-1**
Date Collected: 03/23/17 14:20 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:48	04/05/17 15:52	1

Client Sample ID: MW2-40-032317 — **Lab Sample ID: 590-5759-2**
Date Collected: 03/23/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:48	04/05/17 15:53	1

Client Sample ID: MW2-20-032317 — **Lab Sample ID: 590-5759-3**
Date Collected: 03/23/17 18:30 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:48	04/05/17 15:54	1

Client Sample ID: MW20-60-032417 — **Lab Sample ID: 590-5759-4**
Date Collected: 03/24/17 12:45 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:48	04/05/17 15:55	1

Client Sample ID: MW7-90-032417 — **Lab Sample ID: 590-5759-5**
Date Collected: 03/24/17 14:55 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:56	04/05/17 15:56	1

Client Sample ID: ATC7-20-032417 — **Lab Sample ID: 590-5759-6**
Date Collected: 03/24/17 16:40 — **Matrix: Water**
Date Received: 03/27/17 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND	F1	10		ug/L		04/03/17 08:56	04/05/17 15:57	1

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

Lab Sample ID: MB 590-11363/1-A
Matrix: Water
Analysis Batch: 11357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
2-Methylnaphthalene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
1-Methylnaphthalene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Acenaphthylene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Acenaphthene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Fluorene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Phenanthrene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Anthracene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Fluoranthene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Pyrene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Benzo[a]anthracene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Chrysene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Benzo[b]fluoranthene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Benzo[k]fluoranthene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Benzo[a]pyrene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Indeno[1,2,3-cd]pyrene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Dibenz(a,h)anthracene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1
Benzo[g,h,i]perylene	ND		0.090		ug/L		03/30/17 09:25	03/30/17 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*93*		*45 - 126*	*03/30/17 09:25*	*03/30/17 10:50*	*1*
2-Fluorobiphenyl (Surr)	*90*		*44 - 120*	*03/30/17 09:25*	*03/30/17 10:50*	*1*
p-Terphenyl-d14	*90*		*51 - 121*	*03/30/17 09:25*	*03/30/17 10:50*	*1*

Lab Sample ID: LCS 590-11363/2-A
Matrix: Water
Analysis Batch: 11357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	1.06		ug/L		66	52 - 121
2-Methylnaphthalene	1.60	1.06		ug/L		66	44 - 134
1-Methylnaphthalene	1.60	1.09		ug/L		68	56 - 123
Acenaphthylene	1.60	1.15		ug/L		72	57 - 134
Acenaphthene	1.60	1.11		ug/L		69	54 - 132
Fluorene	1.60	1.26		ug/L		79	59 - 141
Phenanthrene	1.60	1.26		ug/L		79	57 - 141
Anthracene	1.60	1.25		ug/L		78	60 - 136
Fluoranthene	1.60	1.33		ug/L		83	76 - 133
Pyrene	1.60	1.29		ug/L		81	59 - 145
Benzo[a]anthracene	1.60	1.40		ug/L		88	76 - 138
Chrysene	1.60	1.38		ug/L		86	69 - 138
Benzo[b]fluoranthene	1.60	1.38		ug/L		86	69 - 144
Benzo[k]fluoranthene	1.60	1.35		ug/L		84	67 - 141
Benzo[a]pyrene	1.60	1.39		ug/L		87	70 - 141
Indeno[1,2,3-cd]pyrene	1.60	1.46		ug/L		91	73 - 146
Dibenz(a,h)anthracene	1.60	1.48		ug/L		93	68 - 144
Benzo[g,h,i]perylene	1.60	1.49		ug/L		93	68 - 150

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

Lab Sample ID: LCS 590-11363/2-A
Matrix: Water
Analysis Batch: 11357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11363

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	*85*		*45 - 126*
2-Fluorobiphenyl (Surr)	*85*		*44 - 120*
p-Terphenyl-d14	*84*		*51 - 121*

Lab Sample ID: LCSD 590-11363/3-A
Matrix: Water
Analysis Batch: 11357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11363

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	1.60	1.02		ug/L		63	52 - 121	4	30
2-Methylnaphthalene	1.60	1.03		ug/L		65	44 - 134	2	30
1-Methylnaphthalene	1.60	1.04		ug/L		65	56 - 123	4	30
Acenaphthylene	1.60	1.09		ug/L		68	57 - 134	5	30
Acenaphthene	1.60	1.07		ug/L		67	54 - 132	4	30
Fluorene	1.60	1.21		ug/L		76	59 - 141	4	30
Phenanthrene	1.60	1.23		ug/L		77	57 - 141	2	30
Anthracene	1.60	1.21		ug/L		76	60 - 136	3	30
Fluoranthene	1.60	1.29		ug/L		81	76 - 133	3	30
Pyrene	1.60	1.31		ug/L		82	59 - 145	1	30
Benzo[a]anthracene	1.60	1.37		ug/L		86	76 - 138	2	30
Chrysene	1.60	1.35		ug/L		84	69 - 138	2	30
Benzo[b]fluoranthene	1.60	1.34		ug/L		84	69 - 144	3	30
Benzo[k]fluoranthene	1.60	1.32		ug/L		82	67 - 141	2	30
Benzo[a]pyrene	1.60	1.35		ug/L		84	70 - 141	3	30
Indeno[1,2,3-cd]pyrene	1.60	1.42		ug/L		89	73 - 146	3	30
Dibenz(a,h)anthracene	1.60	1.45		ug/L		91	68 - 144	2	30
Benzo[g,h,i]perylene	1.60	1.44		ug/L		90	68 - 150	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	*81*		*45 - 126*
2-Fluorobiphenyl (Surr)	*80*		*44 - 120*
p-Terphenyl-d14	*80*		*51 - 121*

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: LCS 580-241873/13-A
Matrix: Water
Analysis Batch: 241950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 241873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
As	0.100	0.0966		mg/L		97	85 - 115

Lab Sample ID: LCSD 580-241873/14-A
Matrix: Water
Analysis Batch: 241950

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 241873

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
As	0.100	0.0939		mg/L		94	85 - 115	3	20

Lab Sample ID: MB 580-242231/14-A
Matrix: Water
Analysis Batch: 242357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 242231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	ND		0.0010		mg/L		04/05/17 09:14	04/05/17 14:03	1

Lab Sample ID: LCS 580-242231/15-A
Matrix: Water
Analysis Batch: 242357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 242231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
As	0.100	0.0913		mg/L		91	85 - 115

Lab Sample ID: LCSD 580-242231/16-A
Matrix: Water
Analysis Batch: 242357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 242231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
As	0.100	0.0919		mg/L		92	85 - 115	1	20

Lab Sample ID: MB 580-242263/14-A
Matrix: Water
Analysis Batch: 242383

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 242263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	ND		0.0010		mg/L		04/05/17 11:31	04/06/17 09:38	1

Lab Sample ID: LCS 580-242263/15-A
Matrix: Water
Analysis Batch: 242383

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 242263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
As	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCSD 580-242263/16-A
Matrix: Water
Analysis Batch: 242383

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 242263

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
As	0.100	0.0982		mg/L		98	85 - 115	3	20

Lab Sample ID: 590-5759-4 MS
Matrix: Water
Analysis Batch: 242383

Client Sample ID: MW20-60-032417
Prep Type: Total/NA
Prep Batch: 242263

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
As	0.0047		0.100	0.106		mg/L		101	70 - 130

Lab Sample ID: 590-5759-4 MSD
Matrix: Water
Analysis Batch: 242383

Client Sample ID: MW20-60-032417
Prep Type: Total/NA
Prep Batch: 242263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
As	0.0047		0.100	0.106		mg/L		101	70 - 130	0	20

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

Lab Sample ID: 590-5759-4 DU — **Client Sample ID: MW20-60-032417**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242383 — **Prep Batch: 242263**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
As	0.0047		0.00467		mg/L		0.6	20

Lab Sample ID: MB 580-241681/3-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 241950 — **Prep Batch: 241873**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
As	ND		0.0010		mg/L		03/30/17 18:08	03/31/17 11:29	1

Lab Sample ID: 590-5759-1 MS — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 241950 — **Prep Batch: 241873**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
As	0.0029		0.100	0.0972		mg/L		94	70 - 130

Lab Sample ID: 590-5759-1 MSD — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 241950 — **Prep Batch: 241873**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
As	0.0029		0.100	0.0966		mg/L		94	70 - 130	1	20

Lab Sample ID: 590-5759-1 DU — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 241950 — **Prep Batch: 241873**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
As	0.0029		0.00293		mg/L		2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 590-11476/9-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11505 — **Prep Batch: 11476**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.20		ug/L		04/06/17 08:55	04/07/17 15:10	1

Lab Sample ID: LCS 590-11476/8-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11505 — **Prep Batch: 11476**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	2.00	2.12		ug/L		106	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 590-5759-1 MS — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11505 — **Prep Batch: 11476**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		3.33	3.38		ug/L		102	70 - 130

Lab Sample ID: 590-5759-1 MSD — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11505 — **Prep Batch: 11476**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		3.33	3.58		ug/L		108	70 - 130	6	20

Lab Sample ID: 590-5759-1 DU — **Client Sample ID: MW4-20-032317**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 11505 — **Prep Batch: 11476**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hg	ND		ND		ug/L		NC	20

Method: SM 4500 CN I - Cyanide, Weak Acid Dissociable

Lab Sample ID: MB 490-419209/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 420112 — **Prep Batch: 419209**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND		10		ug/L		04/03/17 08:48	04/05/17 15:49	1

Lab Sample ID: LCS 490-419209/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 420112 — **Prep Batch: 419209**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Weak Acid Dissociable	100	97.2		ug/L		97	80 - 120

Lab Sample ID: 590-5759-6 MS — **Client Sample ID: ATC7-20-032417**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 420112 — **Prep Batch: 419209**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Weak Acid Dissociable	ND	F1	100	ND	F1	ug/L		0	70 - 130

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Client Sample ID: MW4-20-032317

Lab Sample ID: 590-5759-1

Date Collected: 03/23/17 14:20

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 13:02	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 11:42	FCW	TAL SEA
Total/NA	Prep	200.8			242231	04/05/17 09:14	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242357	04/05/17 15:15	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:21	JSP	TAL SPK
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:48	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:52	SDL	TAL NSH

Client Sample ID: MW2-40-032317

Lab Sample ID: 590-5759-2

Date Collected: 03/23/17 16:40

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 13:29	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 12:59	FCW	TAL SEA
Total/NA	Prep	200.8			242231	04/05/17 09:14	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242357	04/05/17 15:19	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:35	JSP	TAL SPK
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:48	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:53	SDL	TAL NSH

Client Sample ID: MW2-20-032317

Lab Sample ID: 590-5759-3

Date Collected: 03/23/17 18:30

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 13:56	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 13:03	FCW	TAL SEA
Total/NA	Prep	200.8			242231	04/05/17 09:14	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242357	04/05/17 15:24	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:37	JSP	TAL SPK

Client Sample ID: MW2-20-032317

Lab Sample ID: 590-5759-3

Date Collected: 03/23/17 18:30

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:48	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:54	SDL	TAL NSH

Client Sample ID: MW20-60-032417

Lab Sample ID: 590-5759-4

Date Collected: 03/24/17 12:45

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 14:22	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 13:08	FCW	TAL SEA
Total/NA	Prep	200.8			242263	04/05/17 11:31	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242383	04/06/17 09:42	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:40	JSP	TAL SPK
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:48	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:55	SDL	TAL NSH

Client Sample ID: MW7-90-032417

Lab Sample ID: 590-5759-5

Date Collected: 03/24/17 14:55

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 14:49	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 13:13	FCW	TAL SEA
Total/NA	Prep	200.8			242263	04/05/17 11:31	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242383	04/06/17 10:32	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:42	JSP	TAL SPK
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:56	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:56	SDL	TAL NSH

Client Sample ID: ATC7-20-032417

Lab Sample ID: 590-5759-6

Date Collected: 03/24/17 16:40

Matrix: Water

Date Received: 03/27/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			11363	03/30/17 09:25	NMI	TAL SPK

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Client Sample ID: ATC7-20-032417
Date Collected: 03/24/17 16:40
Date Received: 03/27/17 09:00

Lab Sample ID: 590-5759-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1	11357	03/30/17 15:15	NMI	TAL SPK
Dissolved	Filtration	FILTRATION			241681	03/29/17 13:15	PAB	TAL SEA
Dissolved	Prep	200.8			241873	03/30/17 18:08	PAB	TAL SEA
Dissolved	Analysis	200.8 LL		1	241950	03/31/17 13:17	FCW	TAL SEA
Total/NA	Prep	200.8			242263	04/05/17 11:31	ADB	TAL SEA
Total/NA	Analysis	200.8 LL		1	242383	04/06/17 10:36	FCW	TAL SEA
Total/NA	Prep	245.1			11476	04/06/17 08:55	JSP	TAL SPK
Total/NA	Analysis	245.1		1	11505	04/07/17 15:44	JSP	TAL SPK
Total/NA	Prep	SM 4500 CN I			419209	04/03/17 08:56	LDT	TAL NSH
Total/NA	Analysis	SM 4500 CN I		1	420112	04/05/17 15:57	SDL	TAL NSH

Laboratory References:

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

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

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Laboratory: TestAmerica Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C569	01-06-18

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	09-01-17
Arizona	State Program	9	AZ0473	05-05-17
Arkansas DEQ	State Program	6	88-0737	04-25-17
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-17
Georgia	State Program	4	N/A	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	10-31-17
Kentucky (UST)	State Program	4	19	06-30-17
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-17
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-17
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-17
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-17
New Hampshire	NELAP	1	2963	10-09-17
New Jersey	NELAP	2	TN965	06-30-17
New York	NELAP	2	11342	03-31-17 *
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-17
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-17
Oregon	NELAP	10	TN200001	04-27-17
Pennsylvania	NELAP	3	68-00585	06-30-17
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-18-17 *
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-17
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-17
Virginia	NELAP	3	460152	06-14-17
Washington	State Program	10	C789	07-19-17
West Virginia DEP	State Program	3	219	02-28-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Laboratory: TestAmerica Nashville (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-17
Wyoming (UST)	A2LA	8	453.07	12-31-17

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-18
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-18

Method Summary

Client: Landau & Associates, Inc.
Project/Site: Avista Hamilton St. Bridge

TestAmerica Job ID: 590-5759-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
200.8 LL	Metals (ICP/MS)	EPA	TAL SEA
245.1	Mercury (CVAA)	EPA	TAL SPK
SM 4500 CN I	Cyanide, Weak Acid Dissociable	SM	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

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

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

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200