



# QUARTERLY GROUNDWATER MONITORING REPORT

*Fourth Quarter of 2015*

*Lake Chelan Boat Company*

*1418 West Woodin Avenue, Chelan, WA 98816*

*Antea® Group Project No. STCG-422-2*

*January 22, 2016*

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ADMINISTRATIVE

*Prepared for:*

**Lake Chelan Boat Company**

Mr. Jack Raines

1418 West Woodin Avenue

Chelan, WA 98816

*Prepared by:*

**Antea Group**

4006 148<sup>th</sup> Avenue NE

Redmond, WA 98052

800 477 7411





Antea USA, Inc.  
4006 148<sup>th</sup> Avenue NE  
Redmond, Washington 98052 USA  
[www.anteagroup.com](http://www.anteagroup.com)

January 22, 2016

Lake Chelan Boat Company  
Mr. Jack Raines  
1418 West Woodin Avenue  
Chelan, WA 98816

Subject: Quarterly Groundwater Monitoring Report – Fourth Quarter of 2015  
Lake Chelan Boat Company  
1418 West Woodin Avenue  
Chelan, Washington  
Antea Group Project No. STCG-422-2  
Colony Claim No. 208188

Dear Mr. Raines:

Antea®Group (Antea Group) has prepared this report to summarize groundwater monitoring performed at the above referenced site on December 30, 2015. A site location map is included on Figure 1.

## **GROUNDWATER SAMPLING AND ANALYSES**

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Before the sampling event, Antea Group measured depth to water in monitoring wells MW-1 through MW-6 using an electronic water level meter. This information was recorded on waterproof field sheets. Groundwater elevations (GWE) were measured to an accuracy of 0.01 feet. Samples were withdrawn from each well using a low-flow/low-purge technique with a peristaltic pump. Field parameters of dissolved oxygen (DO), pH, oxygen reduction potential, conductivity, total dissolved solids, and temperature were collected during low-flow/low-purge procedures. A summary of field parameter results is included in Table 1. The samples were placed in the appropriate laboratory-provided containers. Samples were labeled, placed into ice filled coolers, logged onto chain-of-custody forms and transported to the laboratory. No separate-phase hydrocarbons were observed in any of the monitoring wells.

During the December monitoring event, the groundwater flow direction was generally toward the west at an approximate gradient of 0.06 feet/foot. A summary of current and historical groundwater elevations is included in Table 2. A site map showing well locations, groundwater elevations and contours is included on Figure 2.

Groundwater samples from the December event were submitted to ALS Laboratory Group in Everett, Washington, and were analyzed for: total petroleum hydrocarbons in the diesel range (TPH-D) and in the oil range (TPH-O) using Northwest Method NWTPH-Dx; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using USEPA Method 8021.

## **GROUNDWATER ANALYTICAL RESULTS**

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Analytical results from the December event indicate that concentrations of TPH-D was detected above the Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup level in the samples collected from monitoring wells MW-2 and MW-4. Concentrations of all other analytes were below both the laboratory reporting limits and MTCA Method A cleanup levels in the groundwater samples collected from wells MW-1 through MW-6. A summary of current and historical analytical results are presented in Table 2 through Table 6. A site map that shows TPH-D, TPH-O, and BTEX concentrations is included on Figure 3. The analytical report and chain-of-custody documentation are presented as Appendix A. Laboratory control sample results are included in the analytical report.

## **WELL INSTALLATION ACTIVITIES**

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On August 3 and 4, 2015, Antea Group directed the advancement of two soil borings that were completed as 2-inch groundwater monitoring wells (MW-5 and MW-6). Monitoring wells MW-5 and MW-6 were set to a total depth of 30 feet below ground surface (bgs). These wells were installed in order to delineate groundwater impacts to the east of the site. On August 4, 2015, MW-5 and MW-6 were developed after installation was complete. Development activities were completed by purging the wells with a whale pump until the amount of suspended sediment in the purge water decreased significantly and the water appeared clear. Approximately 15 gallons of groundwater was extracted from each well during development. The newly installed wells were surveyed on August 4, 2015. Groundwater analytical results for these new wells are included in this report. Both of the new upgradient wells were non-detect for TPH-D, TPH-O, and BTEX compound during the first two groundwater sampling events. A separate report for the well installation activities is being prepared to further discuss this event and the results.

## REMARKS

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The information contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Antea Group appreciates the opportunity to provide environmental services to you. Please call Matthew Miller, Senior Project Manager, at 425-498-7722 if you have any questions regarding the contents of this letter.

Prepared by:



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Lauren Hamilton  
Staff Professional

Date: January 22, 2016

Reviewed by:



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Jaime Sasse  
Project Professional

Date: January 22, 2016



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Matthew R. Miller, LG  
Senior Project Manager



Date: January 22, 2016

cc: Toxics Cleanup Program, Washington State Department of Ecology Central Region  
Ms. Heather Knowlton, The Vertex Companies, Inc., Seattle, Washington (Electronic Copy)  
Argo Pro /Colony Insurance, San Antonio, Texas (Electronic copy issued by Vertex)  
File, Antea Group

## ***Enclosures***

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Table 3	Groundwater Analytical Results – Carcinogenic PAHs
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Figure 1	Site Location Map
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Appendix A	Analytical Reports and Chain-of-Custody Documentation
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## **Tables**

Table 1	Groundwater Analytical Results – Natural Attenuation Parameters
Table 2	Groundwater Analytical Results and Groundwater Elevation Measurements
Table 3	Groundwater Analytical Results – Carcinogenic PAHs
Table 4	Groundwater Analytical Results – Non-Carcinogenic PAHs
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Table 6	Groundwater Analytical Results – CENSUS, Bio-Trap Results

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
NATURAL ATTENUATION PARAMETERS  
LAKE CHELAN BOAT COMPANY  
1418 WEST WOODIN AVENUE  
CHELAN, WASHINGTON

Sample I.D.	Date	Dissolved										Carbon				
		Oxygen (mg/L)	pH (0 to 14 units)	ORP (mV)	TDS (g/L)	Conductivity (mS/cm <sup>3</sup> )	Temp. (Celsius)	Methane (µg/L)	Nitrate (µg/L)	Sulfate (µg/L)	Iron (µg/L)	Manganese (µg/L)	Dioxide (µg/L)			
MW-1	03/04/13	1.25	6.89	60	0.8	1.18	14.1	--	--	--	--	--	--	--	--	
MW-1	06/05/13	2.31	8.95	246.3	0.510	0.617	14.30	--	--	--	--	--	--	--	--	
MW-1	09/09/13	3.10	10.78	175.1	0.516	0.656	16.04	--	--	--	--	--	--	--	--	
MW-1	12/09/13	2.74	6.83	413.2	0.762	0.914	13.44	--	--	--	--	--	--	--	--	
MW-1	03/05/14	1.07	6.78	248.8	0.725	0.825	11.38	--	--	--	--	--	--	--	--	
MW-1	06/19/14	3.70	6.69	109.8	0.560	0.672	13.47	--	--	--	--	--	--	--	--	
MW-1	09/20/14	1.91	6.91	16.0	0.666	0.898	18.47	--	--	--	--	--	--	--	--	
MW-1	12/15/14	0.08	6.44	-15.2	0.381	0.459	13.57	--	--	--	--	--	--	--	--	
MW-1	03/17/15	3.58	6.03	298	2.42	3.79	13.04	--	--	--	--	--	--	--	--	
MW-1	05/21/15	1.36	6.65	-10.9	0.801	0.963	13.55	<0.010	23	19	<50	<2.0	79,000	--	--	
MW-1	06/22/15	0.77	6.77	258.0	0.582	0.733	15.54	--	--	--	--	--	--	--	--	
MW-1	09/15/15	0.62	6.74	17.0	0.603	0.803	18.00	--	--	--	--	--	--	--	--	
<b>MW-1</b>	<b>12/30/15</b>	<b>1.92</b>	<b>6.57</b>	<b>42.0</b>	<b>1.727</b>	<b>2.099</b>	<b>13.99</b>	--	--	--	--	--	--	--	--	
MW-2	03/04/13	1.69	6.82	91	0.8	1.18	14.0	--	--	--	--	--	--	--	--	
MW-2	06/05/13	1.37	8.61	218.9	0.489	0.579	12.88	--	--	--	--	--	--	--	--	
MW-2	09/09/13	0.78	10.92	192.8	0.566	0.697	14.56	--	--	--	--	--	--	--	--	
MW-2	12/09/13	0.91	6.79	387.8	0.633	0.746	12.60	--	--	--	--	--	--	--	--	
MW-2	03/05/14	1.21	6.65	267.4	0.718	0.815	11.28	--	--	--	--	--	--	--	--	
MW-2	06/19/14	3.75	7.06	58.3	0.560	0.681	14.05	--	--	--	--	--	--	--	--	
MW-2	09/20/14	1.90	6.38	51.2	0.478	0.611	16.15	--	--	--	--	--	--	--	--	
MW-2	12/15/14	0.08	6.64	45.0	0.599	0.737	14.53	--	--	--	--	--	--	--	--	
MW-2	03/17/15	0.59	6.05	293	1.42	2.22	12.98	--	--	--	--	--	--	--	--	
MW-2	05/21/15	Not Sampled - Gauge Only										--	--	--	--	--
MW-2	06/22/15	0.91	6.69	240.6	0.351	0.425	13.84	--	--	--	--	--	--	--	--	
MW-2	09/15/15	0.26	6.74	21.1	0.493	0.628	16.01	--	--	--	--	--	--	--	--	
<b>MW-2</b>	<b>12/30/15</b>	<b>0.30</b>	<b>6.65</b>	<b>41.7</b>	<b>1.315</b>	<b>1.597</b>	<b>13.97</b>	--	--	--	--	--	--	--	--	

**TABLE 1**  
**GROUNDWATER ANALYTICAL RESULTS**  
**NATURAL ATTENUATION PARAMETERS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample I.D.	Date	Dissolved										Carbon		
		Oxygen (mg/L)	pH (0 to 14 units)	ORP (mV)	TDS (g/L)	Conductivity (mS/cm <sup>3</sup> )	Temp. (Celsius)	Methane (µg/L)	Nitrate (µg/L)	Sulfate (µg/L)	Iron (µg/L)	Manganese (µg/L)	Dioxide (µg/L)	
MW-3	03/04/13	1.50	6.65	-88.0	0.8	1.250	13.5	--	--	--	--	--	--	--
MW-3	06/05/13	1.42	8.61	186.3	0.496	0.582	12.58	--	--	--	--	--	--	--
MW-3	09/09/13	1.40	10.30	257.1	0.405	0.499	14.58	--	--	--	--	--	--	--
MW-3	12/09/13	1.39	6.80	367.7	0.633	0.744	12.65	--	--	--	--	--	--	--
MW-3	03/05/14	0.60	6.53	-41.3	0.707	0.817	11.97	--	--	--	--	--	--	--
MW-3	06/19/14	3.37	7.25	81.3	0.497	0.594	13.30	--	--	--	--	--	--	--
MW-3	09/20/14	5.60	6.89	9.6	0.441	0.572	16.80	--	--	--	--	--	--	--
MW-3	12/15/14	0.13	6.77	-43.0	0.641	0.765	13.30	--	--	--	--	--	--	--
MW-3	03/17/15	2.44	6.48	291	1.71	2.68	12.03	--	--	--	--	--	--	--
MW-3	05/21/15	2.39	6.80	-50.3	0.843	0.989	12.56	<0.010	38	19	1,200	280	71,000	--
MW-3	06/22/15	2.80	5.84	304.8	0.403	0.486	13.68	--	--	--	--	--	--	--
MW-3	09/15/15	1.39	6.91	17.7	0.428	0.573	18.24	--	--	--	--	--	--	--
<b>MW-3</b>	<b>12/30/15</b>	<b>4.26</b>	<b>6.67</b>	<b>93.8</b>	<b>1.524</b>	<b>1.849</b>	<b>13.95</b>	--	--	--	--	--	--	--
MW-4	03/04/13	1.66	6.8	38	0.9	1.34	14.8	--	--	--	--	--	--	--
MW-4	06/05/13	3.27	--	310.0	0.746	0.914	14.30	--	--	--	--	--	--	--
MW-4	09/09/13	0.56	10.66	222.4	0.596	0.765	16.47	--	--	--	--	--	--	--
MW-4	12/09/13	1.32	6.71	426.4	0.747	0.912	14.15	--	--	--	--	--	--	--
MW-4	03/05/14	1.33	6.64	266.8	0.755	0.881	12.24	--	--	--	--	--	--	--
MW-4	06/19/14	4.80	6.27	146.9	0.846	1.052	14.96	--	--	--	--	--	--	--
MW-4	09/20/14	1.10	6.87	122.8	0.830	1.119	18.52	--	--	--	--	--	--	--
MW-4	12/15/14	0.02	6.55	-35.0	0.826	1.032	15.12	--	--	--	--	--	--	--
MW-4	03/17/15	0.62	6.39	296	1.98	3.09	13.48	--	--	--	--	--	--	--
MW-4	05/21/15	0.52	6.62	-23.4	1.054	1.281	14.03	<0.010	74	23	<50	290	97,000	--
MW-4	06/22/15	0.81	6.56	270.1	0.761	0.964	15.78	--	--	--	--	--	--	--
MW-4	09/15/15	0.43	6.60	44.8	0.807	1.111	19.51	--	--	--	--	--	--	--
<b>MW-4</b>	<b>12/30/15</b>	<b>0.43</b>	<b>6.70</b>	<b>48.9</b>	<b>1.912</b>	<b>2.368</b>	<b>14.78</b>	--	--	--	--	--	--	--

**TABLE 1**  
**GROUNDWATER ANALYTICAL RESULTS**  
**NATURAL ATTENUATION PARAMETERS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample I.D.	Date	Dissolved							Carbon				
		Oxygen (mg/L)	pH (0 to 14 units)	ORP (mV)	TDS (g/L)	Conductivity (mS/cm <sup>3</sup> )	Temp. (Celsius)	Methane (µg/L)	Nitrate (µg/L)	Sulfate (µg/L)	Iron (µg/L)	Manganese (µg/L)	Dioxide (µg/L)
MW-5	09/15/15	0.80	6.97	-69.9	0.984	1.266	16.46	--	--	--	--	--	--
<b>MW-5</b>	<b>01/02/04</b>	<b>1.10</b>	<b>6.83</b>	<b>61.8</b>	<b>1.452</b>	<b>2.937</b>	<b>13.46</b>	--	--	--	--	--	--
MW-6	09/15/15	0.68	7.22	-108.2	0.800	1.038	16.71	--	--	--	--	--	--
<b>MW-6</b>	<b>12/30/15</b>	<b>0.45</b>	<b>6.90</b>	<b>68.8</b>	<b>1.559</b>	<b>1.907</b>	<b>14.32</b>	--	--	--	--	--	--

**Notes:**

Dissolved Oxygen, pH, ORP, TDS, Conductivity and Temperature measurements taken with a Y-SI 556 water quality field instrument

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-1	03/21/12	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	19.63	0.00	79.87
MW-1	06/21/12	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	9.75	0.00	89.75
MW-1	09/17/12	<130	<250	<1.0	<1.0	<1.0	<3.0	<3.0	99.50	7.86	0.00	91.64
MW-1	12/10/12	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	12.85	0.00	86.65
MW-1	03/04/13	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	19.89	0.00	79.61
MW-1	06/05/13	150	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	10.82	0.00	88.68
MW-1	09/09/13	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	6.99	0.00	92.51
MW-1	12/09/13	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	15.46	0.00	84.04
MW-1	03/05/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	20.00	0.00	79.50
MW-1	06/19/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	8.75	0.00	90.75
MW-1	09/20/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	7.97	0.00	91.53
MW-1	12/15/14	150	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	12.00	0.00	87.50
MW-1	05/21/15	--	--	--	--	--	--	--	99.50	11.22	0.00	88.28
MW-1	06/22/15	230	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	6.60	0.00	92.90
MW-1	09/15/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.50	7.80	0.00	91.70
<b>MW-1</b>	<b>12/30/15</b>	<b>&lt;130</b>	<b>&lt;250</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;3.0</b>	<b>--</b>	<b>99.50</b>	<b>12.95</b>	<b>0.00</b>	<b>86.55</b>

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-2	03/21/12	260	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	19.38	0.00	79.84
MW-2	06/21/12	300	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	9.84	0.00	89.38
MW-2	09/17/12	270	<250	<1.0	<1.0	<1.0	<3.0	<3.0	99.22	8.54	0.00	90.68
MW-2	12/10/12	310	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	13.15	0.00	86.07
MW-2	03/04/13	<130	280	<1.0	<1.0	<1.0	<3.0	--	99.22	20.02	0.00	79.20
MW-2	06/05/13	280	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	10.90	0.00	88.32
MW-2	09/09/13	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	7.10	0.00	92.12
MW-2	12/09/13	140	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	15.62	0.00	83.60
MW-2	06/19/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	8.83	0.00	90.39
MW-2	09/20/14	460	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	8.10	0.00	91.12
MW-2	12/15/14	420	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	12.12	0.00	87.10
MW-2	03/17/15	430	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	14.49	0.00	84.73
MW-2	05/21/15	--	--	--	--	--	--	--	99.22	11.26	0.00	87.96
MW-2	06/22/15	140	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	6.73	0.00	92.49
MW-2	09/15/15	290	<250	<1.0	<1.0	<1.0	<3.0	--	99.22	7.91	0.00	91.31
<b>MW-2</b>	<b>12/30/15</b>	<b>660</b>	<b>&lt;250</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;3.0</b>	<b>--</b>	<b>99.22</b>	<b>13.11</b>	<b>0.00</b>	<b>86.11</b>

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-3	03/21/12	1,300	<250	<1.0	<1.0	9.3	44	--	100.00	20.10	0.00	79.90
MW-3	06/21/12	1,100	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	8.15	0.00	91.85
MW-3	09/17/12	340	<250	<1.0	<1.0	<1.0	3.3	<3.0	100.00	6.41	0.00	93.59
MW-3	12/10/12	140	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	11.30	0.00	88.70
MW-3	06/05/13	620	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	9.25	0.00	90.75
MW-3	09/09/13	<130	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	5.38	0.00	94.62
MW-3	12/09/13	190	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	13.92	0.00	86.08
MW-3	03/05/14	1,900	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	18.45	0.00	81.55
MW-3	06/19/14	180	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	7.20	0.00	92.80
MW-3	09/20/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	6.41	0.00	93.59
MW-3	12/15/14	140	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	10.45	0.00	89.55
MW-3	03/17/15	250	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	12.81	0.00	87.19
MW-3	05/21/15	--	--	--	--	--	--	--	100.00	9.63	0.00	90.37
MW-3	06/22/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	5.04	0.00	94.96
MW-3	09/15/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	100.00	6.26	0.00	93.74
<b>MW-3</b>	<b>12/30/15</b>	<b>&lt;130</b>	<b>&lt;250</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;3.0</b>	<b>--</b>	<b>100.00</b>	<b>11.41</b>	<b>0.00</b>	<b>88.59</b>

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-4	06/21/12	880	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	10.40	0.00	91.85
MW-4	09/17/12	1,800	<250	<1.0	<1.0	<1.0	<3.0	<3.0	102.25	8.00	0.00	94.25
MW-4	12/10/12	390	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	13.45	0.00	88.80
MW-4	03/04/13	160	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	23.72	0.00	78.53
MW-4	06/05/13	2,900	520	<1.0	<1.0	<1.0	<3.0	--	102.25	11.48	0.00	90.77
MW-4	09/09/13	1,300	260	<1.0	<1.0	<1.0	<3.0	--	102.25	7.62	0.00	94.63
MW-4	12/09/13	190	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	16.09	0.00	86.16
MW-4	03/05/14	<130	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	20.61	0.00	81.64
MW-4	06/19/14	580	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	10.42	0.00	91.83
MW-4	09/20/14	1,800	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	8.61	0.00	93.64
MW-4	12/15/14	2,000	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	12.64	0.00	89.61
MW-4	03/17/15	620	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	15.00	0.00	87.25
MW-4	05/21/15	--	--	--	--	--	--	--	102.25	11.89	0.00	90.36
MW-4	06/22/15	1,800	410	<1.0	<1.0	<1.0	<3.0	--	102.25	7.25	0.00	95.00
MW-4	09/15/15	2,300	<250	<1.0	<1.0	<1.0	<3.0	--	102.25	8.45	0.00	93.80
<b>MW-4</b>	<b>12/30/15</b>	<b>960</b>	<b>&lt;250</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;3.0</b>	<b>--</b>	<b>102.25</b>	<b>13.60</b>	<b>0.00</b>	<b>88.65</b>

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-5	09/15/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	102.29	8.51	0.00	93.78
MW-5	12/30/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	102.29	13.64	0.00	88.65
MW-6	09/15/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	106.73	12.89	0.00	93.84
MW-6	12/30/15	<130	<250	<1.0	<1.0	<1.0	<3.0	--	106.73	18.06	0.00	88.67
<b>MTCA Method A Cleanup Levels:</b>		500	500	5	1,000	700	1,000	20	-	-	-	-

**Notes:**  
 µg/L= micrograms per liter  
 < = Less than reporting limit  
 TOC - Top of casing elevation (feet)  
 DTW - Depth to groundwater (feet)  
 SPH Thickness - Separate-phase hydrocarbon thickness (feet)  
 GWE - Groundwater table elevation (feet)  
 TPH = Total petroleum hydrocarbons  
 MTBE = Methyl t-butyl ether  
 TPH as diesel and oil by Method NWTPH-Dx  
 BTEX - Analysis by EPA Method 8021  
 MTBE - Analysis by EPA Method 8021

**TABLE 3**  
**GROUNDWATER ANALYTICAL RESULTS - CARCINOGENIC PAHS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date	Benzo[A] Anthracene (ug/L)	Chrysene (ug/L)	Benzo[B] Fluoranthene (ug/L)	Benzo[K] Fluoranthene (ug/L)	Benzo[A] Pyrene (ug/L)	Indeno[1,2,3-Cd] Pyrene (ug/L)	Dibenz[A,H] Anthracene (ug/L)	Total cPAHs
MW-1	03/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	0.040	0.026	0.066
MW-1	06/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	09/17/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	12/10/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	03/04/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	06/05/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	12/09/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	03/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	0.052	0.034	0.086
MW-2	06/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	09/17/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	12/10/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	06/05/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	12/09/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	03/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	0.059	0.039	0.098
MW-3	06/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	09/17/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	12/10/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	03/04/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	06/05/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-3	12/09/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-4	03/21/12	<0.020	<0.020	0.023	<0.020	<0.020	0.050	0.035	0.108
MW-4	09/17/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-4	12/10/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-4	03/04/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-4	06/05/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-4	12/09/13	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
<b>MTCA Method A Cleanup Level for Total cPAHs</b>									<b>0.1</b>
<b>Notes:</b>									
ug/L = micrograms per liter									
< = Not Detected above the Reporting Limit									
PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM									

**TABLE 4**  
**GROUNDWATER ANALYTICAL RESULTS - NON-CARCINOGENIC PAHS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date	Ace-naphthene (ug/L)	Ace-naphthylene (ug/L)	Anthracene (ug/L)	Benzo(g,h,i) Perylene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	1-Methyl-naphthalene (ug/L)	2-Methyl-naphthalene (ug/L)	Naphthalene (ug/L)	Phenanthrene (ug/L)	Pyrene (ug/L)	Total Naphthalenes (ug/L)
MW-1	3/21/12	<0.020	<0.020	<0.020	0.086	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	6/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-1	12/9/13	--	--	--	--	--	--	<0.020	<0.020	0.079	--	--	--
MW-2	3/21/12	<0.020	<0.020	<0.020	0.094	0.030	<0.020	0.043	<0.020	<0.020	<0.020	<0.020	0.043
MW-2	6/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	12/9/13	--	--	--	--	--	--	<0.020	<0.020	<0.020	--	--	--
MW-3	3/21/12	0.75	0.089	<0.020	0.11	<0.020	1.8	7.7	0.16	14	<0.020	<0.020	21.86
MW-3	6/12/12	0.21	<0.020	<0.020	<0.020	<0.020	0.47	3.0	0.21	7.5	<0.020	<0.020	10.71
MW-3	12/9/13	--	--	--	--	--	--	<0.020	<0.020	<0.020	--	--	--
MW-4	6/21/12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.048	<0.020	<0.020	<0.020	<0.020	0.048
MW-4	12/9/13	--	--	--	--	--	--	<0.020	<0.020	0.040	--	--	--
MW-4	6/19/14	--	--	--	--	--	--	<0.020	<0.020	<0.020	--	--	--
<b>MTCA Method A Cleanup Levels:</b>													<b>160</b>

**Notes:**  
 ug/L = micrograms per liter  
 NA = Not Analyzed  
 < = Not detected above the laboratory method reporting limit  
 PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM

**TABLE 5**  
**GROUNDWATER ANALYTICAL RESULTS - FRACTIONAL ANALYSIS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

	MW-1	MW-2	MW-3	MW-4	MW-4
<b>Volatile Petroleum Hydrocarbons</b>	<b>12/9/2013</b>	<b>12/9/2013</b>	<b>12/9/2013</b>	<b>12/9/2013</b>	<b>6/19/2014</b>
C5-C6 Aliphatics (ug/L)	<50	<50	<50	<50	--
C6-C8 Aliphatics (ug/L)	<50	<50	<50	<50	--
C8-C10 Aliphatics (ug/L)	<50	<50	<50	<50	--
C8-C10 Aromatics (ug/L)	<50	<50	<50	<50	--
C10-C12 Aromatics (ug/L)	<50	<50	<50	<50	--
Hexane (ug/L)	<2.0	<2.0	<2.0	<2.0	--
<b>Extractable Petroleum Hydrocarbons</b>					
C8-C10 Aliphatics (ug/L)	<50	<50	<50	<50	<50
C10-C12 Aliphatics (ug/L)	<50	<50	<50	<50	<50
C12-C16 Aliphatics (ug/L)	<50	<50	<50	<50	<50
C16-C21 Aliphatics (ug/L)	<50	<50	<50	<50	<50
C21-C34 Aliphatics (ug/L)	<50	<50	<50	<50	<50
C8-C10 Aromatics (ug/L)	<50	<50	<50	<50	<50
C12-C16 Aromatics (ug/L)	<50	<50	<50	<50	<50
C16-C21 Aromatics (ug/L)	<50	<50	<50	<50	<50
C21-C34 Aromatics (ug/L)	<50	<50	<50	<50	<50

**Notes:**

µg/L= micrograms per liter

< = Less than reporting limit

-- = Not Analyzed

Extractable petroleum hydrocarbon fractions - analysis by method NWEPH

Volatile petroleum hydrocarbon fractions and hexane - analysis by method NWVPH

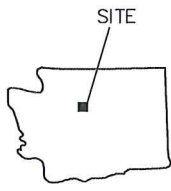
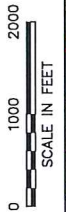
**TABLE 6**  
**GROUNDWATER ANALYTICAL RESULTS - CENSUS, BIO-TRAP RESULTS**  
 LAKE CHELAN BOAT COMPANY  
 1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON

Sample ID	Date Sampled	Phenol Hydroxylase (CB)	Naphthalene Dioxygenase (CB)	Naphthalene-inducible Dioxygenase (CB)	Total Eubacteria (CB)
MW-1	06/22/15	2.25E+04	4.28E+03	1.16E+02	5.42E+06
MW-3	06/22/15	5.93E+03	3.27E+03	2.41E+01	5.59E+06
MW-4	06/22/15	5.49E+03	2.19E+03	1.49E+02	3.46E+06
<b>Laboratory Reporting Limit:</b>		<b>2.50E+02</b>	<b>2.50E+02</b>	<b>2.50E+02</b>	<b>2.50E+02</b>
<b>Detection Limit:</b>		<b>5.00E+00</b>	<b>5.00E+00</b>	<b>5.00E+00</b>	<b>5.00E+00</b>
<b>Notes:</b>					
CB = units are in cells/bead					

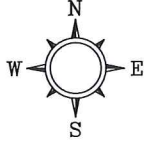
## ***Figures***

- Figure 1      Site Location Map
- Figure 2      Groundwater Elevation Contour Map
- Figure 3      Groundwater Hydrocarbon Distribution Map

PROJECT NUMBER STCC-422  
 APPROVED BY  
 CHECKED BY  
 DRAWN BY ICD 04/24/2013



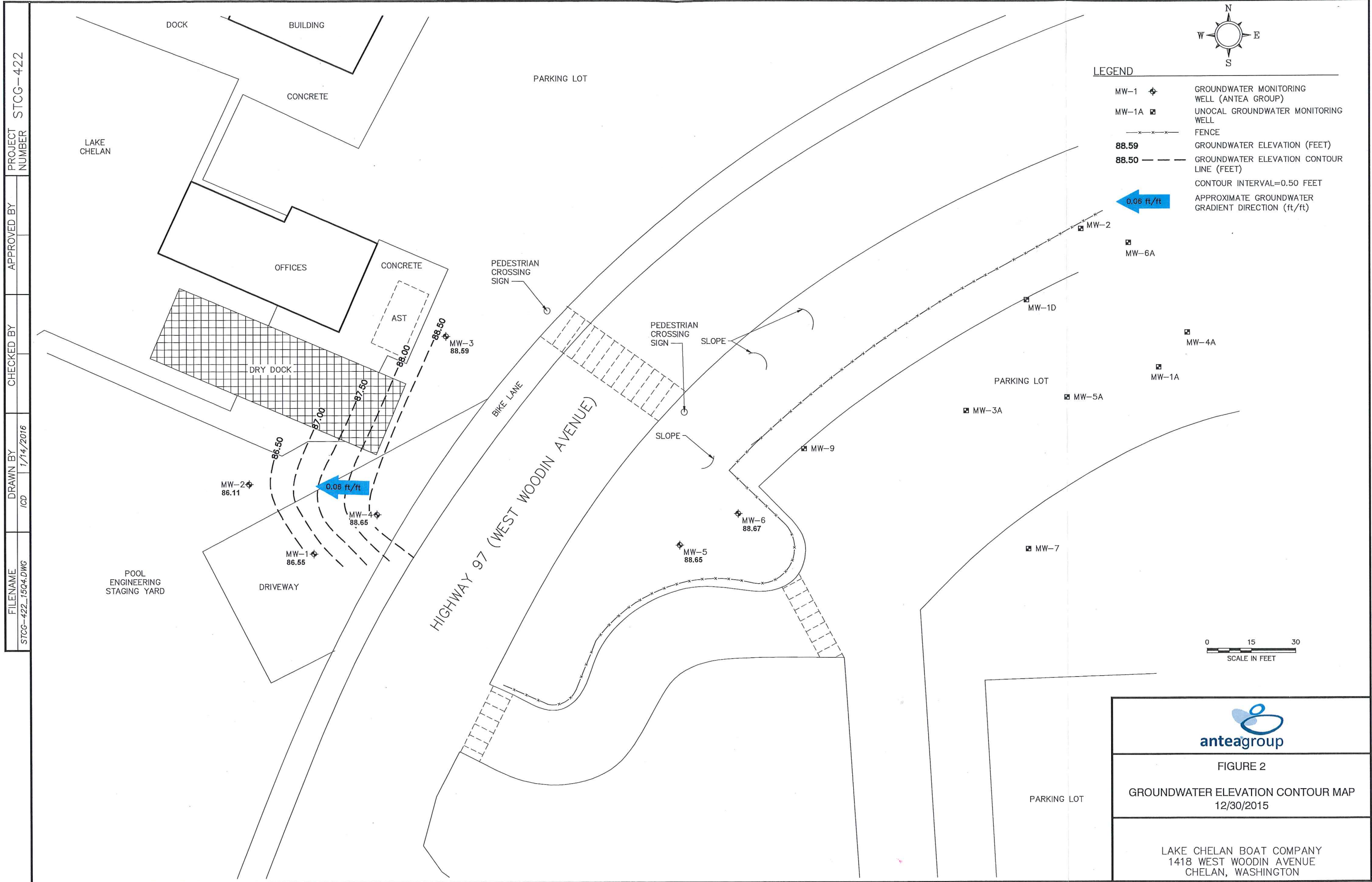
LATITUDE 47D 50M 09S NORTH  
 LONGITUDE 120D 02M 16S WEST  
 U.S. GEOLOGICAL SURVEY-2004  
 7.5 MINUTE QUADRANGLE MAP  
 CHELAN, WASHINGTON



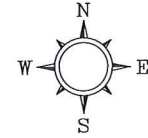
LAKE CHELAN BOAT COMPANY

FIGURE 1  
 SITE LOCATION MAP

1418 WEST WOODIN AVENUE  
 CHELAN, WASHINGTON



PROJECT NUMBER STCG-422  
 APPROVED BY  
 CHECKED BY  
 DRAWN BY ICD 1/14/2016  
 FILENAME STCG-422\_1504.DWG



- LEGEND**
- MW-1 GROUNDWATER MONITORING WELL (ANTEA GROUP)
  - MW-1A UNOCAL GROUNDWATER MONITORING WELL
  - FENCE
  - 88.59 GROUNDWATER ELEVATION (FEET)
  - 88.50 GROUNDWATER ELEVATION CONTOUR LINE (FEET)
  - CONTOUR INTERVAL=0.50 FEET
  - 0.06 ft/ft APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)



FIGURE 2  
GROUNDWATER ELEVATION CONTOUR MAP  
12/30/2015

LAKE CHELAN BOAT COMPANY  
1418 WEST WOODIN AVENUE  
CHELAN, WASHINGTON

PROJECT NUMBER STCG-422

APPROVED BY

CHECKED BY

DRAWN BY

FILENAME

STCG-422\_1504.DWG

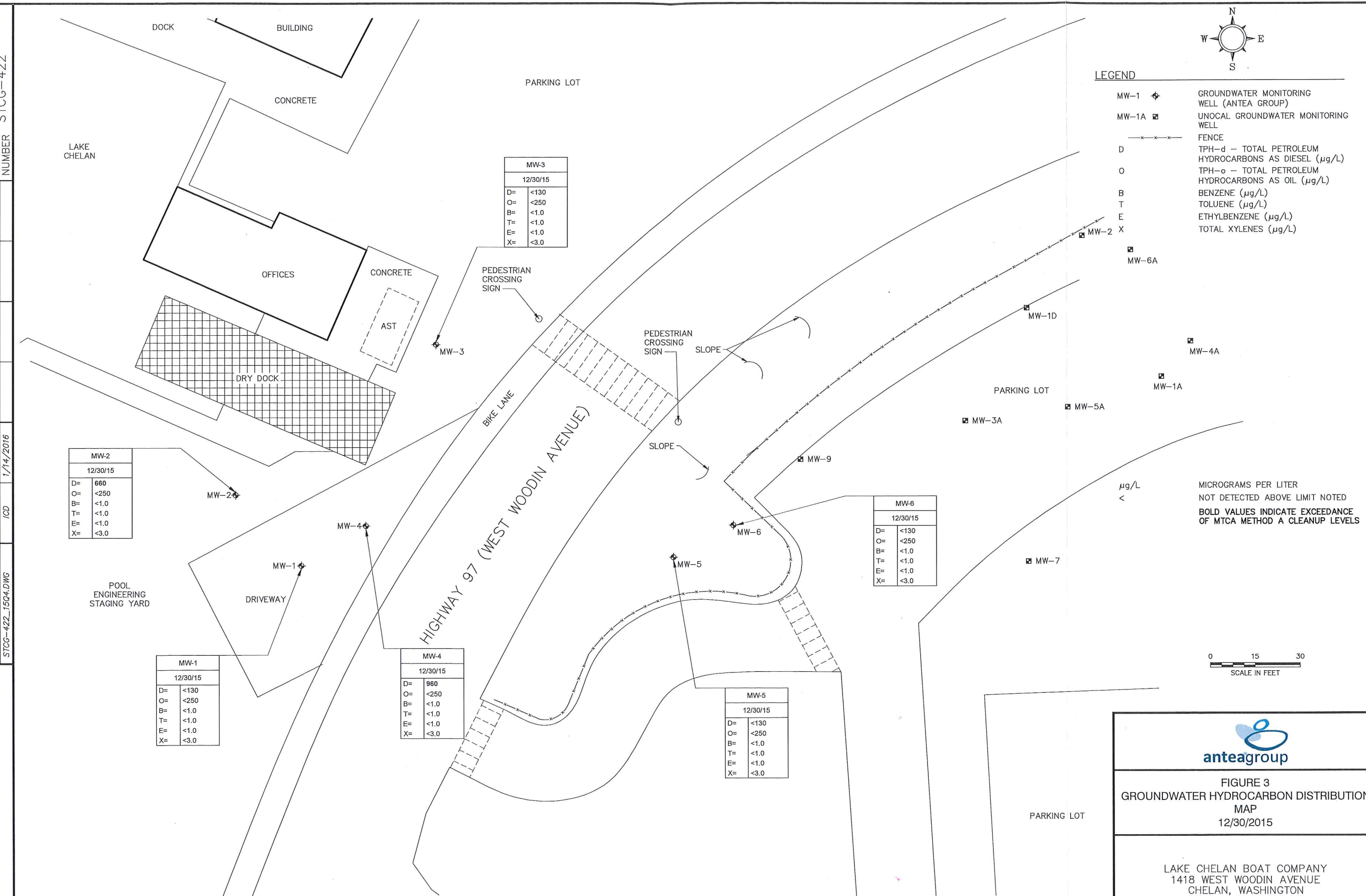


FIGURE 3  
GROUNDWATER HYDROCARBON DISTRIBUTION  
MAP  
12/30/2015

LAKE CHELAN BOAT COMPANY  
1418 WEST WOODIN AVENUE  
CHELAN, WASHINGTON

*Groundwater Monitoring Report - Fourth Quarter of 2015*  
*Lake Chelan Boat Company*  
*1418 West Woodin Avenue, Chelan, Washington*



## ***Appendix A***

Analytical Reports and Chain-of-Custody Documentation



January 5, 2016

Mr. Matt Miller  
Antea Group  
4006 - 148th Ave NE  
Redmond, WA 98052

Dear Mr. Miller,

On December 31st, 6 samples were received by our laboratory and assigned our laboratory project number EV15120211. The project was identified as your STCG-4222\_0100 Chelan. The sample identification and requested analyses are outlined on the attached chain of custody record.

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

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

Sincerely,

ALS Laboratory Group

Rick Bagan  
Laboratory Director



**CERTIFICATE OF ANALYSIS**

CLIENT:	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	DATE:	1/5/2016
CLIENT CONTACT:	Matt Miller	ALS JOB#:	EV15120211
CLIENT PROJECT:	STCG-4222_0100 Chelan	ALS SAMPLE#:	EV15120211-01
CLIENT SAMPLE ID	MW-1-12.95	DATE RECEIVED:	12/31/2015
		COLLECTION DATE:	12/30/2015 12:20:00 PM
		WDOE ACCREDITATION:	C601

**SAMPLE DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	92.8	01/04/2016	PAB
C25	NWTPH-DX	94.0	01/04/2016	EBS

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



**CERTIFICATE OF ANALYSIS**

CLIENT:	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	DATE:	1/5/2016
CLIENT CONTACT:	Matt Miller	ALS JOB#:	EV15120211
CLIENT PROJECT:	STCG-4222_0100 Chelan	ALS SAMPLE#:	EV15120211-02
CLIENT SAMPLE ID:	MW-2-13.11	DATE RECEIVED:	12/31/2015
		COLLECTION DATE:	12/30/2015 12:00:00 PM
		WDOE ACCREDITATION:	C601

**SAMPLE DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	660	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	92.5	01/04/2016	PAB
C25	NWTPH-DX	98.7	01/04/2016	EBS

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



**CERTIFICATE OF ANALYSIS**

<b>CLIENT:</b>	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	<b>DATE:</b>	1/5/2016
<b>CLIENT CONTACT:</b>	Matt Miller	<b>ALS JOB#:</b>	EV15120211
<b>CLIENT PROJECT:</b>	STCG-4222_0100 Chelan	<b>ALS SAMPLE#:</b>	EV15120211-03
<b>CLIENT SAMPLE ID</b>	MW-3-11.41	<b>DATE RECEIVED:</b>	12/31/2015
		<b>COLLECTION DATE:</b>	12/30/2015 10:20:00 AM
		<b>WDOE ACCREDITATION:</b>	C601

**SAMPLE DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

<b>SURROGATE</b>	<b>METHOD</b>	<b>%REC</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
TFT	EPA-8021	93.4	01/04/2016	PAB
C25	NWTPH-DX	106	01/04/2016	EBS

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



**CERTIFICATE OF ANALYSIS**

CLIENT:	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	DATE:	1/5/2016
CLIENT CONTACT:	Matt Miller	ALS JOB#:	EV15120211
CLIENT PROJECT:	STCG-4222_0100 Chelan	ALS SAMPLE#:	EV15120211-04
CLIENT SAMPLE ID	MW-4-13.60	DATE RECEIVED:	12/31/2015
		COLLECTION DATE:	12/30/2015 11:45:00 AM
		WDOE ACCREDITATION:	C601

**SAMPLE DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	960	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	90.5	01/04/2016	PAB
C25	NWTPH-DX	98.1	01/04/2016	EBS

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



**CERTIFICATE OF ANALYSIS**

<b>CLIENT:</b>	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	<b>DATE:</b>	1/5/2016
<b>CLIENT CONTACT:</b>	Matt Miller	<b>ALS JOB#:</b>	EV15120211
<b>CLIENT PROJECT:</b>	STCG-4222_0100 Chelan	<b>ALS SAMPLE#:</b>	EV15120211-05
<b>CLIENT SAMPLE ID</b>	MW-5-13.64	<b>DATE RECEIVED:</b>	12/31/2015
		<b>COLLECTION DATE:</b>	12/30/2015 11:00:00 AM
		<b>WDOE ACCREDITATION:</b>	C601

**SAMPLE DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

<b>SURROGATE</b>	<b>METHOD</b>	<b>%REC</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
TFT	EPA-8021	91.1	01/04/2016	PAB
C25	NWTPH-DX	94.0	01/04/2016	EBS

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



**CERTIFICATE OF ANALYSIS**

CLIENT:	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	DATE:	1/5/2016
CLIENT CONTACT:	Matt Miller	ALS JOB#:	EV15120211
CLIENT PROJECT:	STCG-4222_0100 Chelan	ALS SAMPLE#:	EV15120211-06
CLIENT SAMPLE ID	MW-6-18.06	DATE RECEIVED:	12/31/2015
		COLLECTION DATE:	12/30/2015 10:40:00 AM
		WDOE ACCREDITATION:	C601

**SAMPLE DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	01/04/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	01/04/2016	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	01/04/2016	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	01/04/2016	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	92.8	01/04/2016	PAB
C25	NWTPH-DX	93.8	01/04/2016	EBS

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



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 1/5/2016
4006 - 148th Ave NE ALS SDG#: EV15120211
Redmond, WA 98052 WDOE ACCREDITATION: C601
CLIENT CONTACT: Matt Miller
CLIENT PROJECT: STCG-4222\_0100 Chelan

LABORATORY BLANK RESULTS

MB-122815W - Batch 100129 - Water by EPA-8021

Table with 7 columns: ANALYTE, METHOD, RESULTS, UNITS, REPORTING LIMITS, ANALYSIS DATE, ANALYSIS BY. Rows include Benzene, Toluene, Ethylbenzene, and Xylenes.

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

MB-010416W - Batch 100295 - Water by NWTPH-DX

Table with 7 columns: ANALYTE, METHOD, RESULTS, UNITS, REPORTING LIMITS, ANALYSIS DATE, ANALYSIS BY. Rows include TPH-Diesel Range and TPH-Oil Range.

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



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group  
4006 - 148th Ave NE  
Redmond, WA 98052

DATE: 1/5/2016  
ALS SDG#: EV15120211  
WDOE ACCREDITATION: C601

CLIENT CONTACT: Matt Miller  
CLIENT PROJECT: STCG-4222\_0100 Chelan

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 100129 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	99.8			12/28/2015	PAB
Benzene - BSD	EPA-8021	99.8	0		12/28/2015	PAB
Toluene - BS	EPA-8021	98.7			12/28/2015	PAB
Toluene - BSD	EPA-8021	98.0	1		12/28/2015	PAB
Ethylbenzene - BS	EPA-8021	99.2			12/28/2015	PAB
Ethylbenzene - BSD	EPA-8021	99.1	0		12/28/2015	PAB
Xylenes - BS	EPA-8021	101			12/28/2015	PAB
Xylenes - BSD	EPA-8021	101	0		12/28/2015	PAB

ALS Test Batch ID: 100295 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	98.5			01/04/2016	EBS
TPH-Diesel Range - BSD	NWTPH-DX	97.8	1		01/04/2016	EBS

APPROVED BY

Laboratory Director

**COLONY CHAIN-OF-CUSTODY / Analytical Request Document**

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



<b>Required Lab Information:</b> Lab Name: ALS-Everett Address: 8620 Holly Drive, Suite 100 Everett, WA 98208 Lab PM: Rick Bagan Phone/Fax: 425-356-2600 Lab PM Email: rick.bagan@alsglobal.com		<b>Required Project Information:</b> Site ID #: STCG-4222   Task: WG_Q_2015 Antea project #: STCG-4222_0100; Chelan Site Address: 1418 West Woodin Ave City: Chelan   State: WA Name of Antea PM: Matthew Miller Phone/Fax: P: 425-498-7722 F: PM Email: Matt.Miller@anteagroup.com		<b>Required Invoice Information:</b> Send Invoice to: Colony Insurance   Claim #: 208188 Attention: Carol Lybeer   Phone #: 206-658-4906 Email Address: clybeer@argroupus.com Address: Send EDD to: CC Herdooopy report to: Matt.Miller@anteagroup.com CC Herdooopy report to:		Turn around time (Business days): Standard TAT Organic, Metals & Inorganic Analysis: 10 Days TAT Fuels & Hydrocarbon Analysis: 5 Days Other:	
<b>Applicable Lab Quote #:</b>  MATRIX CODES W: WATER G: GROUNDWATER LW: LAKE WATER LW: LEACHATE LW: LIQUID LW: LUBRICANT LW: MUD LW: OIL LW: OTHER LW: AIR LW: SOIL GAS LW: SOLID LW: OTHER	<b>SAMPLE ID</b> One Character per box. (A-Z, 0-9 / .)	MATRIX CODE G-GRAB C-COMP SAMPLE TYPE	SAMPLE DATE SAMPLE TIME	# OF CONTAINERS FIELD FILTERED?	PRESERVATIVES Unpreserved H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Methanol Other	Requested Analyses WTPH-DX BTEX 80218	Comments/Lab Sample ID
Additional Comments/Special Instructions: Taylor Roberts / Antea / 12-31-15 / 1037 <i>globe haw</i> ALS 12-31-15, 1037							
RELINQUISHED BY (Name, Company, Date, Time) _____ ACCEPTED BY (Name, Company, Date, Time) _____							
SHIPPING METHOD (Circle One) UPS <input checked="" type="radio"/> FEDEX <input type="radio"/> US MAIL <input type="radio"/> DROP OFF <input type="radio"/>							
MITBE - Detections confirmed by 8260.							