



June 5, 2015

Mr. Danny Anderson, P.E.  
Manager, Solid Waste Branch  
Division of Waste Management  
200 Fair Oaks Lane  
2<sup>nd</sup> Floor  
Frankfort, KY 40601

998  
CMN15-01  
2Q SW ST

RE: Advanced Disposal Services Blue Ridge Landfill, Inc.  
2<sup>nd</sup> Quarter 2015 Surface Water Report  
Permit # 033-00004  
AI # 998

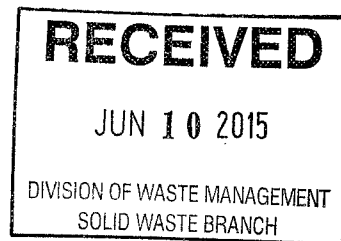
Dear Mr. Anderson:

Please find attached the 2<sup>nd</sup> Quarter 2015 surface water report for the Advanced Disposal Services Blue Ridge landfill site in Irvine, Estill County, Kentucky.

If you have any questions or require additional information, please contact me at (606) 723-5559.

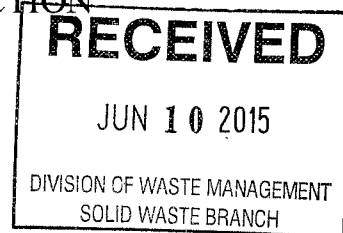
Sincerely,  
BLUE RIDGE LANDFILL, INC.

Dan Fleshour  
East Region Compliance Manager



# GROUNDWATER AND SURFACE WATER MONITORING SAMPLE DATA REPORTING FORM

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH  
200 FAIR OAKS LANE  
FRANKFORT, KY 40601



Facility Name Advanced Disposal Services Blue Ridge Landfill, Inc. Activity OTR SW Detection  
(As officially shown on DWM Permit Face)

Permit No. 033-00004 Finds/Unit No. KY0000470336 Quarter & Year 2nd Quarter, 2015

Please check only ONE of the following:

Characterization     Quarterly     Semi-Annual     Annual     Assessment

Please check applicable submittal:     Groundwater     Surface Water  
 Leachate

This form is to be utilized by those sites required by regulation (Kentucky Waste Management Regulations - 401 KAR 48:300 and 45:160) or by statute (Kentucky Revised Statutes Chapter 224) to conduct groundwater and surface water monitoring under the jurisdiction of the Division of Waste Management. You must report any indication of contamination within forty-eight (48) hours of making the determination using statistical analyses, direct comparison, or other similar techniques. Submitting the lab report is NOT considered notification. Instructions for completing the form are attached. Do not submit the instruction pages.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

*Daniel J. Fleshour*

06/05/15

SIGNATURE

DATE

Dan Fleshour, East Region Compliance Manager

NAME AND TITLE - PLEASE PRINT

# FACILITY INFORMATION SHEET

Sampling Date: 4/6/15 County: Estill Permit No.: 033-00004

Facility Name Advanced Disposal Services Blue Ridge Landfill, Inc.

Site Address: 2700 Winchester Road Irvine KY 40336  
Street City State Zip

Phone No.: (606) 723-5559 Latitude 34° 44' 45" Longitude 83° 56' 10"

## OWNER INFORMATION

Facility Owner: Advanced Disposal Services Blue Ridge Landfill, Inc. Phone No.: (606) 723-5559

Contact Person: Billy Bowles Phone No.: (606) 723-5559

Contact Person Title: Landfill Operations Manager

Mailing Address 2700 Winchester Road Irvine KY 40336  
Street City State Zip

## SAMPLING PERSONNEL

*(IF OTHER THAN LANDFILL OR LABORATORY)*

Company: Cornerstone Environmental Group, LLC

Contact Person: Kari Wallover Phone No.: (630) 410-7229

Mailing Address: 2456 Fortune Drive, Ste. 170 Lexington KY 40509  
Street City State Zip

## LABORATORY RECORD #1

Laboratory: Pace Analytical Services, Inc. Lab ID No.: \_\_\_\_\_

Contact Person: Cindy Varga Phone No.: (920) 321-9460

Mailing Address: 1241 Bellevue St. Green Bay WI 54302  
Street City State Zip

## LABORATORY RECORD #2

Laboratory: \_\_\_\_\_ Lab ID No. \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
Street City State Zip

Solid Waste Branch

Permit Number: 033-00004

200 Fair Oaks Lane

Facility: BLUE RIDGE LANDFILL

Frankfort, KY 40601 (502)564-6716

FINDS/UNIT: KY0000470336 /1

LAB ID: \_\_\_\_\_

For Official Use Only

# SURFACE WATER SAMPLE ANALYSIS (W)

Monitoring Point (KPDES Discharge Number, or "Upstream", or "Downstream")					SWM-1	SWM-2	SWM-3	SWM-4					
Sample Sequence #					N/A	N/A	N/A	N/A					
If sample is a Blank specify type: (F)ield, (T)rip, (M)ethod, or (E)quipment					N/A	N/A	N/A	N/A					
Sample Date and Time (Month/Day/Year hour:minutes)					4/6/2015	4/6/2015	4/6/2015	4/6/2015					
Duplicate ("Y" or "N") <sup>1</sup>					N/A	N/A	N/A	N/A					
Split ("Y" or "N") <sup>2</sup>					N/A	N/A	N/A	N/A					
Facility Sample ID Number (if applicable)					N/A	N/A	N/A	N/A					
Laboratory Sample ID Number (if applicable)					N/A	N/A	N/A	N/A					
Date of Analysis (Month/Day/Year)					N/A	N/A	N/A	N/A					
CAS RN <sup>3</sup>		Constituent	T D <sup>4</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S
A200-00-0	0	Flow	T	FT/SEC.	FIELD	No Flow		No Flow		No Flow		No Flow	
16887-00-6	2	Chloride(s)	T	mg/L	9251								
14808-79-8	0	Sulfate	T	mg/L	9038								
7439-89-6	0	Iron	T	mg/L	6010								
7440-23-5	0	Sodium	T	mg/L	6010								
S0268- -	0	Organic Carbon <sup>6</sup>	T	mg/L	9060								
S0097- -	0	BOD <sup>6</sup>	-	MG/L	N/A								
S0130- -	0	Chemical Oxygen Demand	T	mg/L	410.4								

<sup>1</sup>Respond "Y" if the sample was a duplicate of another sample in this report.

<sup>2</sup>Respond "Y" if the sample was split and analyzed by separate laboratories.

<sup>3</sup>Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.

<sup>4</sup>"T" = Total; "D" = Dissolved

<sup>5</sup>"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit.

<sup>6</sup>Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required.

**STANDARD FLAGS:**

J = Estimated Value

B = Analyte found in blank

A = Average value

N = Presumptive ID

D = Concentration from analysis of a secondary dilution factor

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: KY0000470336 /1

LAB ID: \_\_\_\_\_

For official Use Only

### SURFACE WATER SAMPLE ANALYSIS - (Cont.)

Monitoring Point (KPDES Discharge Number, or "Upstream" or "Downstream")						SWM-1		SWM-2		SWM-3		SWM-4	
CAS RN <sup>3</sup>		Constituent	T D <sup>4</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S
S0145- -	1	Specific Conductance	-	UMHOS/CM	FIELD								
S0270- -	0	Total Suspended Solids	T	mg/L	160.2								
S0266- -	0	Total Dissolved Solids	T	mg/L	160.1								
S0269- -	0	Total Solids	T	mg/L	160.3								
S0296- -	0	pH	-	NO UNITS	FIELD								

<sup>1</sup>Respond "Y" if the sample was a duplicate of another sample in this report.  
<sup>2</sup>Respond "Y" if the sample was split and analyzed by separate laboratories.  
<sup>3</sup>Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.  
<sup>4</sup>"T" = Total; "D" = Dissolved  
<sup>5</sup>"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit.  
<sup>6</sup>Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required.

**STANDARD FLAGS:**  
 J = Estimated Value  
 B = Analyte found in blank  
 A = Average value  
 N = Presumptive ID  
 D = Concentration from analysis of a secondary dilution factor



June 5, 2015

Mr. Danny Anderson, P.E.  
Manager, Solid Waste Branch  
Division of Waste Management  
200 Fair Oaks Lane  
2<sup>nd</sup> Floor  
Frankfort, KY 40601

RE: Advanced Disposal Services Blue Ridge Landfill, Inc.  
2nd Quarter 2015 Groundwater Statistical Analysis Report  
Permit # 033-00004  
AI # 998

Dear Mr. Anderson:

Please find attached the 1<sup>st</sup> Quarter 2015 groundwater statistical analysis report for the Advanced Disposal Services Blue Ridge landfill site in Irvine, Estill County, Kentucky.

If you have any questions or require additional information, please contact me at (606) 723-5559.

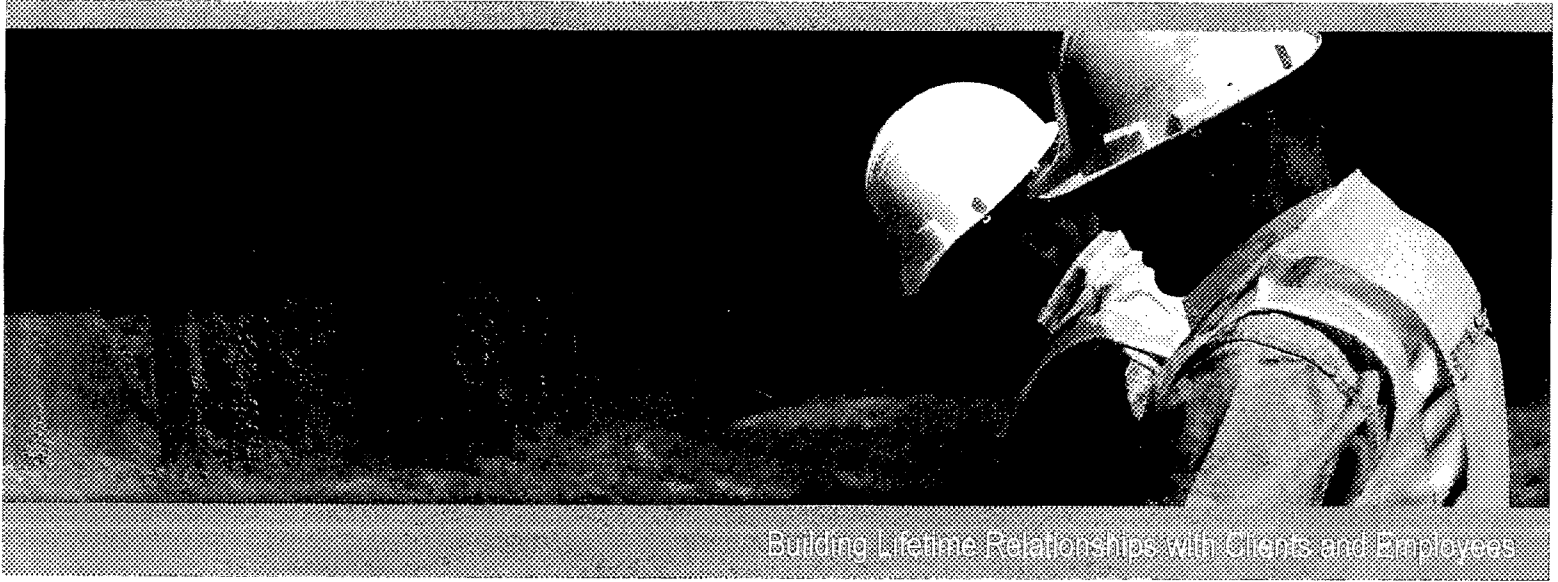
Sincerely,  
BLUE RIDGE LANDFILL, INC.

A handwritten signature in cursive script that reads "Daniel J. Fleshour".

Dan Fleshour  
East Region Compliance Manager



2456 Fortune Drive, Suite 170, Lexington, KY 40509



Building Lifetime Relationships with Clients and Employees

## **2<sup>nd</sup> Quarter 2015 Groundwater Statistical Analysis Report**

Project # 150184  
June 2015

**Prepared for:**  
Advanced Disposal Services

**Blue Ridge Landfill**  
2700 Winchester Road  
Irvine, KY 40336

# 2<sup>nd</sup> Quarter 2015

## Groundwater Statistical Analysis Report

### Blue Ridge Landfill

June 2015

**Prepared for:**  
Advanced Disposal Services  
2700 Winchester Road  
Irvine, KY 40336



2450 Fortune Drive, Suite 170  
Lexington, KY 40509  
(606) 400-7229

## REPORT CERTIFICATION

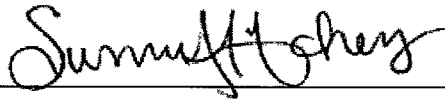
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### 2<sup>nd</sup> Quarter Groundwater Statistical Report

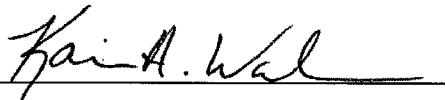
### Advanced Disposal Services Blue Ridge Landfill Irvine, Kentucky

The material and data in this report were prepared under the supervision and direction of the undersigned.

Cornerstone Environmental Group, LLC



Summer Hitchens, M.P.H.  
Project Scientist



Kari A. Wallover, PG  
Project Manager

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### Tables

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## **1 INTRODUCTION**

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The Advanced Disposal Services Blue Ridge Landfill is located at the following address:

Advanced Disposal Services Blue Ridge Landfill, Inc.  
2700 Winchester Road  
Estill County  
Irvine, Kentucky 40336

On behalf of Advanced Disposal Services Blue Ridge Landfill, Inc., Cornerstone Environmental Group, LLC (Cornerstone) conducted groundwater sampling at the Blue Ridge landfill on April 6, 2015. Cornerstone has performed a statistical analysis on the data from this second quarter 2015 sampling event. A discussion regarding sample collection procedures, laboratory analytical results, and statistical analysis results is presented herein.

## **2 GROUNDWATER MONITORING/REPORTING REQUIREMENTS**

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Kentucky Administrative Regulations (KAR), specifically 401 KAR 48:300, require regular groundwater monitoring and reporting for solid waste disposal facilities such as the Blue Ridge Landfill. The purpose of this monitoring is to help evaluate if landfill operations are impacting water quality in the vicinity of the landfill.

## **3 AREA AND SITE GEOLOGY/HYDROGEOLOGY**

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Estill County is located within parts of both the Outer Bluegrass and the Eastern Kentucky Coal Field physiographic regions. The oldest rocks found on the surface in the County are sedimentary rocks that were deposited in shallow seas during the Ordovician Period approximately 490 million years ago. The Devonian-aged New Albany Shale lies above the Ordovician rocks and was formed when the deep sea floor became covered with an organic black muck. The muck is now a hard black oil shale and is one of the most distinctive of all geologic formations in Kentucky. Mississippian-aged sandstones, siltstone, and limestones lie above the New Albany Shale.

The geologic unit that is currently being monitored at the site is the New Albany Shale. The site is located on the U. S. Geological Survey Geologic Map of the Irvine Quadrangle (1976), and according to this map the New Albany Shale is defined as the following:

Shale and dolomite: Shale is grayish-black, locally olive-gray; the grayish-black shale weathers to shades of gray, locally to dark brown, and to dark yellowish brown where stained by limonite; carbonaceous; abundant disseminated grains of iron sulfides and a few nodular concretions as much as 4 inches in diameter and 2 inches thick; phosphatic nodules, 2 to 4 inches in diameter, common in upper 15 feet; commonly fissile; contains a few silty layers; locally contains sparse well-rounded grains of quartz, particularly in lower 15 feet; locally crossbedded and interbedded with dolomite in lower 15 feet; sparse phosphatic nodules in upper 10 feet. Olive-gray shale occurs in a few layers, 1/2 to 4 inches thick in upper 40 feet, and in layers as much as 1 foot thick in upper 10 feet. The dolomite consists of two varieties: (1) medium-dark-gray to grayish-brown, very fine to fine-grained, carbonaceous; containing sparse grains of iron sulfides and well-rounded medium grains of quartz; in layers from less than 1 inch to more than 2 feet thick; locally present in lower 15 feet; (2) dark-gray, mottled with variegated shades of brown, very fine to fine-grained; at places containing fragments of dolomite, chert, and fossils which impart a breccia-like appearance; carbonaceous; contains sparse well-rounded medium grains of quartz and chert, and very fine grains of iron sulfides; locally present at base. The Unit is commonly well exposed except on hilltops and gentle slopes. It forms broad, flat valleys, steep dissected hillsides and bluffs along streams, and flat hilltops. The contact with underlying Boyle Dolomite is conformable; the contact with the underlying Bisher Limestone and Crab Orchard Formation is unconformable. The Unit thins slightly southwestward.

According to the Kentucky Geological Survey (KGS) County Report #33, Series XII, issued in 2005, and titled "Groundwater Resources of Estill County, Kentucky," the New Albany Shale yields 100 to 500 gallons per day to wells in valley bottoms and on uplands, usually at depths of less than 50 feet. Water from great depths in this formation is highly mineralized. Salt, hydrogen sulfide, and iron are common objectionable constituents found in groundwater from the New Albany Shale.

## **4 MONITORING POINTS AND REQUIREMENTS**

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There is one groundwater-bearing zone being monitored at the Blue Ridge landfill site. This zone is the New Albany Shale and downgradient wells completed in this formation are MW-7, MW-10, MW-13, and MW-15R. Monitoring well MW-17R is the upgradient monitoring point installed in the New Albany Shale for the landfill. The existing groundwater monitoring points are shown on Figure 1.

As stated in the Kentucky Department for Environmental Protection (KDEP) approved "Groundwater Monitoring Plan-Update" for the facility prepared by Herst & Associates, Inc. and dated August 2009, the sampling program consists of annual sampling for

parameters in 401 KAR Chapter 48:300 Section 11(3)(a) and (b) during the second quarter of each year, and quarterly sampling for parameters in 401 KAR Chapter 48:300 Section 11(3)(f) during the first, third, and fourth quarters of each year. During the second quarter 2015 sampling event, the parameters analyzed were those from 401 KAR Chapter 48:300 Section 11(3)(a) and (b).

## **5 SAMPLING EVENT**

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This 2<sup>nd</sup> Quarter 2015 sampling event was conducted by Cornerstone field personnel at the Blue Ridge landfill on April 6, 2015. A sampling checklist summary is located in Table 1, and Table 2 contains a summary of monitoring well specifications (groundwater monitoring well number, reference casing elevation, depth of well, static groundwater level, static groundwater elevation, zone monitored). All five monitoring wells were purged and sampled on the same day that they were purged. No problems were encountered during the sampling event.

Water levels were first collected from all of the wells and then the purging and sampling were conducted utilizing dedicated bladder pumps. Low-flow purging methods were utilized to purge the wells. Field parameters including pH, temperature, and specific conductivity were monitored and recorded during the low-flow purging activities and purging took place until equilibrium of these parameters was attained or the well went dry. Equilibrium was attained when the field parameters stabilized for at least three consecutive readings within the following limits: pH within plus or minus 0.1 standard units, specific conductance between plus or minus 3%, and temperature within plus or minus 1 degree Celsius. Purge rates were utilized that allowed for water level stabilization.

## **6 GROUNDWATER FLOW RATE AND DIRECTION**

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The groundwater flow rate and flow direction were estimated for the New Albany Shale zone that is being monitored at the Blue Ridge Landfill. Calculations for the hydraulic gradients and flow rates for this flow zone are displayed in Appendix A.

As shown on Figure 1, the groundwater flow direction in the New Albany Shale flows towards the northwest. This flow direction is consistent with historic evaluations of groundwater flow at the facility. Water levels collected during the second quarter 2015 event were consistent with historical values measured at the monitoring wells.

## **7 STATISTICAL ANALYSIS PROCEDURES**

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The statistical analysis software package entitled *Sanitas* was utilized to analyze the data. This program follows a documented decision logic that incorporates the following applicable guidance documents: EPA's "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance," dated April 1989; the "Addendum" to the EPA document dated July 1992; and ASTM D6312-98 titled "Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs," dated December 1998.

As presented in the "Groundwater Monitoring Plan-Update" dated August 2009, the method of statistical analyses utilized is dictated by the characteristics (i.e., size, number of non-detects, distribution, etc.) of the background data sets in accordance with EPA protocol. In general, control charts were selected as the methods of analysis and have been used in previous evaluations of the groundwater monitoring data. However, other methods (prediction limits, rank sum) have been utilized as dictated by the data characteristics.

Samples were collected this quarter for the parameters specified in 401 KAR Chapter 48:300 Section 11(3)(a) and (b). This list includes the parameters sampled every quarter [temperature, chloride, chemical oxygen demand (COD), total dissolved solids (TDS), total organic carbon (TOC), specific conductance (conductivity), pH, iron, sodium, and total organic halides (TOX)], in addition to several additional metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, thallium, vanadium, zinc), nitrate, and the volatile organic compounds listed in 401 KAR 48:300 Section 11(3)(b). A comparison of these parameters to their respective Maximum Contaminant Level (MCL) specified in 401 KAR 47:030, if any, was conducted for the April 2015 data.

### **7.1 Intra-well Prediction Limits**

Intra-well prediction limits will be calculated on the data. During parametric prediction interval analysis, the mean and the standard deviation are calculated for the raw or transformed background data. The number of comparison observations is defined to be included in the interval. If less than 15% of the background observations are nondetects, the nondetects are replaced with one half of the reporting limit prior to performing the analysis. If more than 15% but less than 50% of the background data are below the reporting limit, the sample mean and standard deviation of the data are adjusted according to the Cohen's Adjustment. However, when the background data are not transformed-normal or contain greater than 50% observations below the reporting limit, the program automatically constructs a nonparametric prediction interval. During nonparametric analysis, the highest value from the background data is used to set the upper limit of the prediction interval.

## 7.2 Site Background

The background period for statistical analysis is in general defined as samples previously taken from each well at the Blue Ridge facility from May 1993 through the July 2014 event, with the exception of MW-15R. Chloride, sodium, TDS, and conductivity data in samples collected from MW-15R from February 2000 through August 2006 were lower than from November 2006 through March 2014. The November 2006 through March 2014 concentrations for these parameters in samples collected from MW-15R have been detected at consistent levels with no upward/downward trends. Therefore, for this analysis the statistical background for chloride, sodium, TDS, and conductivity at well MW-15R consist of data from November 2006 through March 2014 only. In addition, an evaluation for outliers has been performed on background data and detected outliers have been removed from statistical analysis computations.

## 7.3 Statistical Results Summary

During the second quarter 2015 event, six statistical differences occurred utilizing prediction limits. Statistical differences occurred in monitoring wells MW-7 (chloride, TDS, and specific conductivity), in MW-13 (iron), in MW-15R (specific conductivity), and in MW-10 (TOX), as the parameter results exceeded their respective intra-well prediction limits. Statistical charts and graphs are located in Appendix D.

The statistical limit for iron at MW-13 was exceeded as the concentration 11.5 mg/L exceeded the prediction limit of 8.59 mg/L. It is not anticipated that this statistical difference is due to landfill impacts. According to Information Circular 13 issued by the KGS in 2007 titled "Groundwater Quality in Kentucky: Iron," iron is one of the most abundant elements in rocks and soils in the state and is one of the most common problems in groundwater supplies. Iron in Kentucky groundwater commonly exceeds the secondary maximum contaminant level (SMCL) of 0.3 mg/L. As stated in the KGS circular, the Eastern Kentucky Coal Field and Outer Bluegrass, where Estill County is located, have the largest percentage of sites where iron concentrations exceed the SMCL.

The statistical limit for TOX at MW-10 was exceeded as the concentration 3.3 mg/L exceeded the prediction limit of 0.7309 mg/L. Historically, MW-10 has not shown exceedances for TOX and the current concentrations is approximately forty times higher in magnitude than average background levels of TOX in this well and appears to be an outlier; therefore, it is not anticipated that this statistical difference is due to landfill impacts.

Monitoring well MW-7 has historically contained high levels of salt water; however, as shown in the table below the average concentrations of chloride, conductivity and TDS in MW-7 are lower than or similar to the concentrations in the upgradient well (MW-17R) that exists at the site. In addition, the average concentrations of these parameters in monitoring

well MW-15R are significantly lower than the concentrations in upgradient well MW-17R:

	Chloride	Conductivity	TDS
MW-7	594	3,326	2,034
MW-10	361	2,621	1,794
MW-13	5,317	13,923	9,142
MW-15R	47	2,253	1,802
MW-17R*	525	4,908	3,302

\*average of last three years of data - when concentrations had stabilized

As stated previously, according to the publication by the KGS titled "Groundwater Resources of Estill County, Kentucky," water from great depths in the New Albany Shale formation is highly mineralized and salt is a common objectionable constituent. Salt water is found below fresh groundwater at variable depths throughout the entire state of Kentucky. According to the KGS, in Estill County the fresh-saline interface ranges from elevations of less than 500 feet mean sea level in the northwestern part of the county up to 900 feet in the mountainous southern end of the county. The elevated concentrations of chloride, TDS, and conductivity in monitoring wells MW-7 and MW-15R are therefore anticipated to be associated with naturally occurring saline conditions.

KDEP personnel indicated in a letter dated November 19, 2014, that the split-sample results for chloride and TDS collected by KDEP at MW-7 during the 1st quarter 2014 event confirmed the statistical exceedances reported for the 3<sup>rd</sup> quarter 2014 event. The letter indicated that a Groundwater Assessment Plan (GAP) was required to be prepared for monitoring well MW-7. A GAP for MW-7 was submitted to KDEP on February 6, 2015 and is currently undergoing review.

A comparison of the 2nd quarter 2015 data to the MCLs listed in 401 KAR 47:030 indicated that an MCL exceedance occurred at upgradient well MW-17R for benzene. The benzene concentration of 0.0076 mg/L in MW-17R exceeded the MCL of 0.005 mg/L. This well is an upgradient well and the benzene exceedance is therefore not due to landfill impacts. Monitoring well MW-17R is completed in the New Albany shale, which is an oil-bearing black shale; therefore, the benzene detection is likely the result of naturally occurring oil deposits.

## 8 CONCLUSIONS

During the April 2015 monitoring event, six statistical differences occurred using prediction limits, which were chloride, TDS, and specific conductivity in the samples collected from monitoring well MW-7, iron in MW-13, TOX in MW-10, and specific conductivity in MW-15R. The statistical difference for MW-10 is anticipated to be an outlier as it is several orders of magnitude higher than average background concentrations. The statistical

difference in MW-15R and MW-13 are anticipated to be the result of naturally occurring concentrations of iron and salt water. Monitoring well MW-7 is currently in groundwater assessment and as required in a letter issued by KDEP on November 19, 2014, a GAP was submitted for the well in February 2015. Advanced Disposal Services is awaiting approval from KDEP on the GAP to continue the assessment investigation. Concentrations of chloride, TDS, and specific conductance have dropped in MW-7 in each of the last three quarters.

An MCL exceedance occurred at upgradient well MW-17R for benzene. This well is an upgradient well and the benzene exceedance is therefore not due to landfill impacts. Monitoring well MW-17R is completed in the New Albany shale, which is an oil-bearing black shale; therefore, the benzene detection is likely the result of naturally occurring oil deposits.

## LIMITATIONS

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The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

## TABLES

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**TABLE 1 - SAMPLING CHECKLIST**

Sampling Point ID	Well Purged			Sample Collected			Comments
	Yes	No	Purge Date	Full List <sup>1</sup>	None	Sample Date	
MW-7	✓		4/6/15	✓		4/6/15	No problems encountered during sampling
MW-10	✓		4/6/15	✓		4/6/15	No problems encountered during sampling
MW-13	✓		4/6/15	✓		4/6/15	No problems encountered during sampling
MW-15R	✓		4/6/15	✓		4/6/15	No problems encountered during sampling
MW-17R	✓		4/6/15	✓		4/6/15	No problems encountered during sampling

<sup>1</sup>Parameters in 401 KAR 48:300, Section 11.

**TABLE 2 - STATIC GROUNDWATER LEVELS**

Monitoring Well	AKGWA #	Top PVC Casing Elevation (ft MSL <sup>1</sup> )	Total Well Depth from Top PVC Casing <sup>2</sup> (ft)	Depth to Static Groundwater (ft) <sup>3</sup>	Static Groundwater Elevation (ft MSL)
MW-7	8001-0205	784.37	110.00	74.06	710.31
MW-10	8001-0201	801.16	70.00	60.83	740.33
MW-13	8001-0233	766.14	64.50	55.13	711.01
MW-15R	8003-3579	763.99	76.00	55.13	708.86
MW-17R	8003-8393	821.82	93.49	76.43	745.39

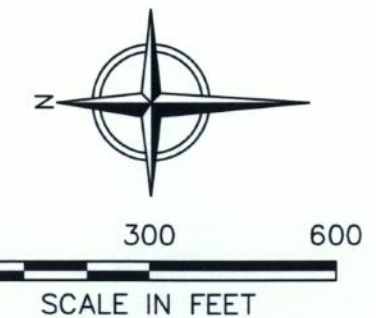
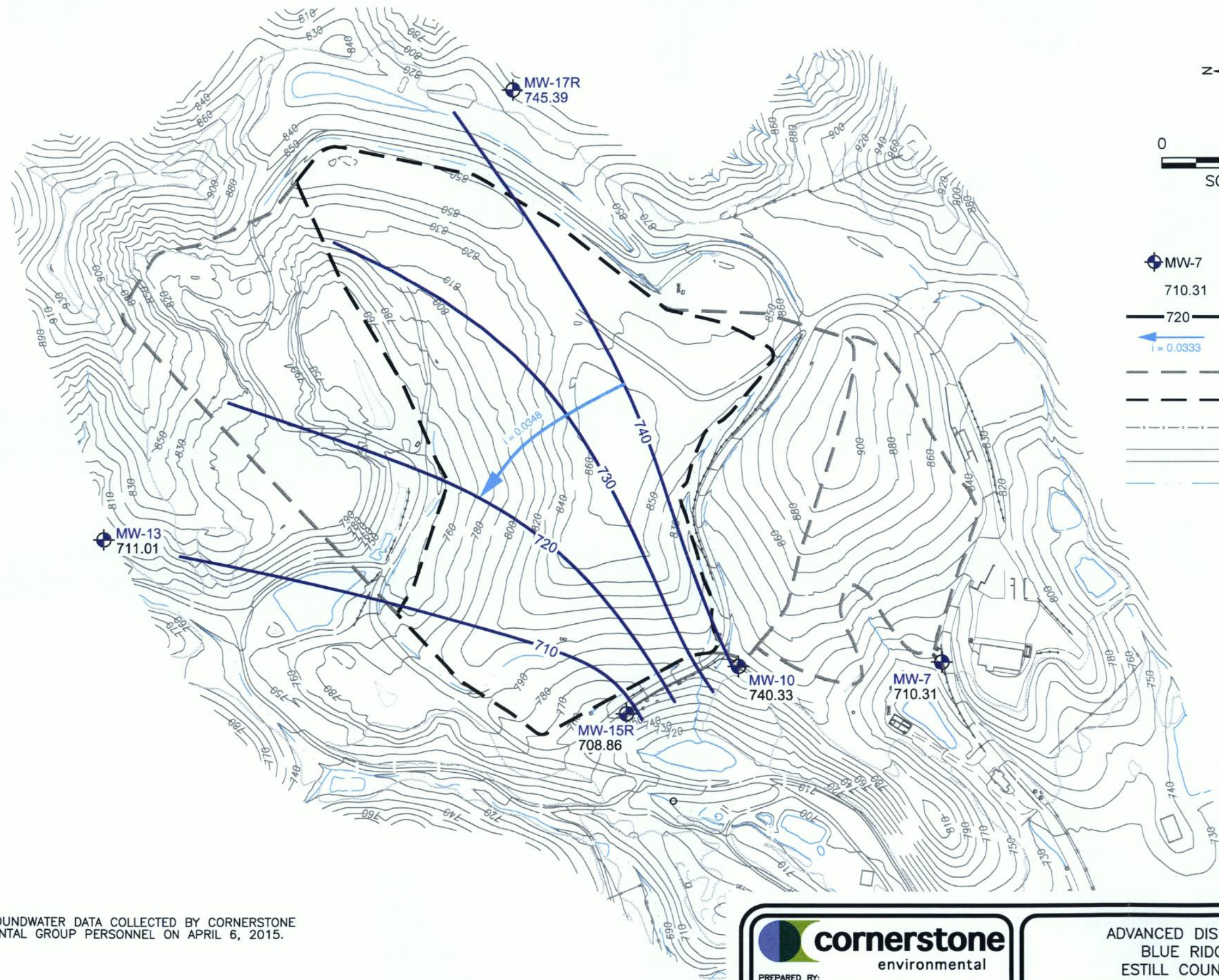
<sup>1</sup>Feet above Mean Sea Level

<sup>2</sup>Depths taken from well construction logs

<sup>3</sup>Values measured by Cornerstone Environmental Group, LLC on April 6, 2015

## FIGURES

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**LEGEND**

- MW-7 GROUNDWATER MONITORING WELL
- 710.31 GROUNDWATER ELEVATION (FMSL)
- 720 INFERRED POTENTIOMETRIC SURFACE CONTOUR (FMSL)
- HYDRAULIC GRADIENT & INFERRED GROUNDWATER FLOW DIRECTION  
 $i = 0.0333$
- APPROXIMATE DESIGN WASTE LIMIT
- APPROXIMATE CONSTRUCTED WASTE LIMIT
- EXISTING FENCE
- EXISTING ACCESS ROAD
- EXISTING WATER COURSE

**NOTE:**

STATIC GROUNDWATER DATA COLLECTED BY CORNERSTONE ENVIRONMENTAL GROUP PERSONNEL ON APRIL 6, 2015.

*K. A. Wallover*  
 REGISTERED PROFESSIONAL GEOLOGIST  
 KENTUCKY BOARD OF REGISTRATION FOR PROFESSIONAL GEOLOGISTS  
 PG-2347  
 6-3-15

**cornerstone**  
 environmental  
 PREPARED BY:  
 CORNERSTONE ENVIRONMENTAL GROUP, LLC  
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ADVANCED DISPOSAL SERVICES  
 BLUE RIDGE LANDFILL  
 ESTILL COUNTY, KENTUCKY  
**ENVIRONMENTAL REPORTING & MONITORING**  
**2nd QTR 2015 POTENTIOMETRIC MAP**

FIGURE NO.  
**1**  
 PROJECT NO.  
 150184.01

***APPENDIX A***  
**FLOW RATE AND FLOW DIRECTION CALCULATIONS**

---

## Groundwater Flow Velocity Calculations Blue Ridge Landfill, Kentucky Second Quarter 2015 Event

### FLOW VELOCITY OF NEW ALBANY SHALE

Parameters:

Saturated Thickness (b) = average saturated thickness is approximately 14.12 ft.

Well	Well Depth (ft)	Depth to Water (ft)	Saturated Thickness (ft)
MW-10	70.00	60.83	9.17
MW-13	64.50	55.13	9.37
MW-15R	76.00	55.13	20.87
MW-17R	93.49	76.43	17.06
Average Saturated Thickness =			14.12

Transmissivity (T) = Transmissivity values for the New Albany Shale are listed as ranging from 110 to 1,130 gpd/ft as noted in Table 4 of "Ground-Water Resources in the White and West Fork White River Basin, Indiana," State of Indiana Department of Natural Resources-Division of Water, Water Resource Assessment 2002-6.

Hydraulic Conductivity (k) = transmissivity (T) x saturated thickness (b)  
 Minimum k = (110 gpd/ft) / 14.12 ft = 14.7 ft<sup>2</sup>/d / 14.12 ft = 1.04 ft/d  
 Maximum k = (1,130 gpd/ft) / 14.12 ft = 151 ft<sup>2</sup>/d / 14.12 ft = 10.69 ft/d

Conversion factor = ft<sup>2</sup>/day = gpd/ft / 7.481

Effective Porosity (n<sub>e</sub>) = assumed to be approximately 0.15 for shale bedrock according to the USEPA "Interim Final RCRA Facility Investigation Guidance Document", May 1989, EPA 530/SW-89-031, p 10-51.

Gradient (i) = calculated from the gradient at the site using the Second Quarter 2015 potentiometric map.

- Gradient (i) = Change in groundwater elevation along flow path i:  
From 740 contour to 720 contour = 20ft / 575ft = 0.0348

Calculations:

#### Minimum Velocity

$$V = [(k)(i)] / n_e$$

$$V = [(1.11 \text{ ft/d})(0.0348)] / 0.15$$

$$V = 0.24 \text{ ft/d}$$

#### Maximum Velocity

$$V = [(k)(i)] / n_e$$

$$V = [(11.45 \text{ ft/d})(0.0348)] / 0.15$$

$$V = 2.48 \text{ ft/d}$$

**APPENDIX B**  
**CERTIFICATION**

---

# GROUNDWATER AND SURFACE WATER MONITORING SAMPLE DATA REPORTING FORM

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH  
200 FAIR OAKS LANE  
FRANKFORT, KY 40601



Facility Name Advanced Disposal Services Blue Ridge Landfill, Inc. Activity Residential/Contained/CDD  
(As officially shown on DWM Permit Face)

Permit No. 033-00004 Finds/Unit No. \_\_\_\_\_ Quarter & Year 2<sup>nd</sup> Quarter, 2015

*Please check only ONE of the following:*

Characterization     Quarterly     Semi-Annual     Annual     Assessment

*Please check applicable submittal:*     Groundwater     Surface Water  
   Leachate

This form is to be utilized by those sites required by regulation (Kentucky Waste Management Regulations - 401 KAR 48:300 and 45:160) or by statute (Kentucky Revised Statutes Chapter 224) to conduct groundwater and surface water monitoring under the jurisdiction of the Division of Waste Management. You must report any indication of contamination within forty-eight (48) hours of making the determination using statistical analyses, direct comparison, or other similar techniques. Submitting the lab report is NOT considered notification. Instructions for completing the form are attached. Do not submit the instruction pages.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

A handwritten signature in cursive script, appearing to read "Daniel J. Fleshour".

06/05/15

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

Dan Fleshour, East Region Compliance Manager

NAME AND TITLE - PLEASE PRINT

# FACILITY INFORMATION SHEET

Sampling Date: 4/6/15 County: Estill Permit No.: 033-00004

Facility Name Advanced Disposal Services Blue Ridge Landfill, Inc.

Site Address: 2700 Winchester Road Irvine KY 40336  
Street City State Zip

Phone No.: (606) 723-5559 Latitude 34° 44' 45" Longitude 83° 56' 10"

## OWNER INFORMATION

Facility Owner: Advanced Disposal Services Phone No.: (606) 723-5559

Contact Person: Billy Bowles Phone No.: (606) 723-5559

Contact Person Title: Landfill Operations Manager

Mailing Address 2700 Winchester Road Irvine KY 40336  
Street City State Zip

## SAMPLING PERSONNEL

*(IF OTHER THAN LANDFILL OR LABORATORY)*

Company: Cornerstone Environmental Group, LLC

Contact Person: Kari Wallover Phone No.: (630) 410-7229

Mailing Address: 2456 Fortune Drive, Ste. 170 Lexington KY 40509  
Street City State Zip

## LABORATORY RECORD #1

Laboratory: Pace Analytical Services, Inc. Lab ID No.: \_\_\_\_\_

Contact Person: Cindy Varga Phone No.: (920) 321-9460

Mailing Address: 1241 Bellevue Street Green Bay WI 54302  
Street City State Zip

## LABORATORY RECORD #2

Laboratory: \_\_\_\_\_ Lab ID No \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
Street City State Zip

***APPENDIX C***  
**DWM GROUNDWATER SAMPLE ANALYSIS**

---

Solid Waste Branch

Permit Number: 033-00004

200 Fair Oaks Lane

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_/1

Frankfort, KY 40601 (502)564-6716

LAB ID: \_\_\_\_\_

For Official Use Only

# GROUNDWATER SAMPLE ANALYSIS (S)

AKGWA NUMBER <sup>1</sup> Facility Well/Spring Number						8001-0205	8001-0201	8001-0223	8003-3579				
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, MW-3, etc.)						MW-7	MW-10	MW-13	MW-15R				
Sample Sequence #						1	1	1	1				
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA	NA	NA	NA				
Sample Date and Time (Month/Day/Year hour:minutes)						4/6/2015 11:25	4/6/2015 12:03	4/6/2015 13:00	4/6/2015 12:30				
Duplicate ("Y" or "N") <sup>2</sup>						N	N	N	N				
Split ("Y" or "N") <sup>3</sup>						N	N	N	N				
Facility Sample ID Number (if applicable)						NA	NA	NA	NA				
Laboratory Sample ID Number (if applicable)						40112711001	40112711002	40112711003	40112711004				
Date of Analysis (Month/Day/Year)						VARIES	VARIES	VARIES	VARIES				
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						DOWN	DOWN	DOWN	DOWN				
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S
	0	Static Water Level Elevation	T	Ft. MSL	FIELD	710.31		740.33		711.01		708.86	
S0907- -	2	Temperature	T	°C	FIELD	14.50		15.61		14.16		23.70	
16887-00-6	2	Chloride (s)	T	mg/L	9251	1020		145		5200		72.0	
S0130	0	Chemical Oxygen Demand	T	mg/L	410.4	54.3		93.6		237		<50.0	
S0266	0	Total Dissolved Solids	T	mg/L	160.1	2860		1290		8750		2660	
S0268	1	Total Organic Carbon	T	mg/L	9060	<0.50		37.1		<0.50		10.9	

**STANDARD FLAGS:**

- J = Estimated Value
- B = Analyte found in blank
- A = Average value
- N = Presumptive ID
- D = Concentration from analysis of a secondary dilution factor

<sup>1</sup>AKGWA # is 0000-0000 for any type of blank.

<sup>2</sup>Respond "Y" if the sample was a duplicate of another sample in this report.

<sup>3</sup>Respond "Y" if the sample was split and analyzed by separate laboratories.

<sup>4</sup>Chemical Abstracts Service registry Number or unique identifier number assigned by agency.

<sup>5</sup>"T" = Total; "D" = Dissolved

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_ /1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number						8001-0205		8001-0201		8001-0223		8003-3579	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-7		MW-10		MW-13		MW-15R	
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S
S0145	1	Specific Conductance	-	UMHOS/CM	FIELD	4900		2044		14560		3839	
S0595	0	Nitrate	T	mg/L	9200	1		<3.0		1.7		<0.30	
S0586	0	Total Organic Halides	T	mg/L	9020	0.210		3.30		0.16		0.071	
S0296	0	pH	-	No Units	FIELD	7.28		7.77		7.32		7.16	
7440-36-0	0	Antimony	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7440-38-2	0	Arsenic	T	mg/L	7060	<0.005		<0.005		<0.01		<0.001	
7440-39-3	0	Barium	T	mg/L	6010	0.219		0.0946		0.284		0.316	
7440-41-7	0	Beryllium	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7440-43-9	0	Cadmium	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7440-47-3	0	Chromium	T	mg/L	6010	<0.005		0.0050		<0.01		<0.001	
7440-48-4	0	Cobalt	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7440-50-8	0	Copper	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7439-89-6	0	Iron	T	mg/L	6010	4.49		<1.25		11.50		11.6	
7439-92-1	0	Lead	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	
7439-97-6	0	Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	
7440-02-0	0	Nickel	T	mg/L	6010	<0.005		0.0111		<0.01		0.0025	
7782-49-2	0	Selenium	T	mg/L	7740	<0.005		<0.005		<0.01		<0.001	
740-22-4	0	Silver	T	mg/L	6010	<0.0025		<0.0025		<0.005		<0.0005	
7440-23-5	0	Sodium	T	mg/L	6010	1080		562		3200		344	
7440-28-0	0	Thallium	T	mg/L	6010	<0.005		<0.005		<0.01		<0.001	

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_/1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number						8001-0205	8001-0201	8001-0223	8003-3579				
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-7	MW-10	MW-13	MW-15R				
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S
7440-62-2	0	Vanadium	T	mg/L	6010	<0.005		0.0073		<0.01		<0.001	
74440-66-6	0	Zinc	T	mg/L	6010	<0.05		<0.05		<0.1		<0.01	
108-05-4	2	Acetic acid ethenyl ester	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1	0	Acetone	T	mg/L	8260	<0.02		<0.02		<0.02		<0.02	
107-02-8	3	Acrolein	T	mg/L	8260	<0.02		<0.02		<0.02		<0.02	
107-13-1	0	Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2	0	Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7	1	Benzene, chloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7	3	Benzene, Dimethyl	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5	1	Benzene, ethenyl	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3	1	Benzene, methyl	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-97-5	0	Bromochloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-4	3	Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2	0	Bromoform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9	0	Bromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
78-93-3	0	2-Butanone	T	mg/L	8260	<0.02		<0.02		<0.02		<0.02	
110-57-6	0	2-Butene, 1,4-dichloro-, (E)	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-15-0	0	Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3	0	Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3	0	Chloroform	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_ /1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number						8001-0205		8001-0201		8001-0223		8003-3579	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-7		MW-10		MW-13		MW-15R	
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S
74-87-3	0	Chloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2	0	cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3	0	Dibromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-71-8	0	Dichlorodifluoromethane	-	MG/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3	0	1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2	0	1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4	0	1,1-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
540-36-3	0	1,4-Difluorobenzene	-	MG/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4	6	Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5	4	Ethane, 1,1,2,2-Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6	5	Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5	3	Ethane, 1,1,2-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6	3	Ethane, 1,1,1,2-Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
64-17-5	0	Ethanol	-	MG/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4	2	Ethene, Chloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
110-75-8	1	Ethene, (2Chloroethoxy)-	-	MG/L	8260	<0.005		<0.005		<0.005		<0.005	
127-18-4	7	Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6	5	Ethene, Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
100-41-4	0	Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
97-63-2	0	Ethyl methacrylate	-	MG/L	8260	<0.001		<0.001		<0.001		<0.001	



Solid Waste Branch

Permit Number: 033-00004

200 Fair Oaks Lane

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_/1

Frankfort, KY 40601 (502)564-6716

LAB ID: \_\_\_\_\_

For Official Use Only

# GROUNDWATER SAMPLE ANALYSIS (S)

AKGWA NUMBER <sup>1</sup> Facility Well/Spring Number						8003-8393							
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, MW-3, etc.)						MW-17R							
Sample Sequence #						1							
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA							
Sample Date and Time (Month/Day/Year hour:minutes)						4/6/2015 13:40							
Duplicate ("Y" or "N") <sup>2</sup>						N							
Split ("Y" or "N") <sup>3</sup>						N							
Facility Sample ID Number (if applicable)						NA							
Laboratory Sample ID Number (if applicable)						40112711005							
Date of Analysis (Month/Day/Year)						VARIES							
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						DOWN							
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S	Detected Value or PQL <sup>6</sup>	FL AG S
	0	Static Water Level Elevation	T	Ft. MSL	FIELD	745.39							
S0907- -	2	Temperature	T	°C	FIELD	14.68							
16887-00-6	2	Chloride (s)	T	mg/L	9251	300							
S0130	0	Chemical Oxygen Demand	T	mg/L	410.4	68.2							
S0266	0	Total Dissolved Solids	T	mg/L	160.1	2950							
S0268	1	Total Organic Carbon	T	mg/L	9060	21.2							

**STANDARD FLAGS:**

- J = Estimated Value
- B = Analyte found in blank
- A = Average value
- N = Presumptive ID
- D = Concentration from analysis of a secondary dilution factor

<sup>1</sup>AKGWA # is 0000-0000 for any type of blank.

<sup>2</sup>Respond "Y" if the sample was a duplicate of another sample in this report.

<sup>3</sup>Respond "Y" if the sample was split and analyzed by separate laboratories.

<sup>4</sup>Chemical Abstracts Service registry Number or unique identifier number assigned by agency.

<sup>5</sup>"T" = Total; "D" = Dissolved

<sup>6</sup>"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_/1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number					8003-8393								
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)					MW-17R								
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S
S0145	1	Specific Conductance	-	UMHOS/CM	FIELD	4445							
S0595	0	Nitrate	T	mg/L	9200	<0.30							
S0586	0	Total Organic Halides	T	mg/L	9020	0.13							
S0296	0	pH	-	No Units	FIELD	7.82							
7440-36-0	0	Antimony	T	mg/L	6010	<0.01							
7440-38-2	0	Arsenic	T	mg/L	7060	<0.01							
7440-39-3	0	Barium	T	mg/L	6010	0.0729							
7440-41-7	0	Beryllium	T	mg/L	6010	<0.01							
7440-43-9	0	Cadmium	T	mg/L	6010	<0.01							
7440-47-3	0	Chromium	T	mg/L	6010	<0.01							
7440-48-4	0	Cobalt	T	mg/L	6010	<0.01							
7440-50-8	0	Copper	T	mg/L	6010	<0.01							
7439-89-6	0	Iron	T	mg/L	6010	<2.5							
7439-92-1	0	Lead	T	mg/L	6010	<0.01							
7439-97-6	0	Mercury	T	mg/L	7470	<0.01							
7440-02-0	0	Nickel	T	mg/L	6010	<0.01							
7782-49-2	0	Selenium	T	mg/L	7740	<0.01							
740-22-4	0	Silver	T	mg/L	6010	<0.005							
7440-23-5	0	Sodium	T	mg/L	6010	1170							
7440-28-0	0	Thallium	T	mg/L	6010	<0.01							

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_ /1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number						8003-8393							
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-17R							
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit of Measure	Method	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S	Detected Value or PQL <sup>5</sup>	FL AG S
7440-62-2	0	Vanadium	T	mg/L	6010	<0.01							
74440-66-6	0	Zinc	T	mg/L	6010	<0.1							
108-05-4	2	Acetic acid ethenyl ester	T	mg/L	8260	<0.005							
67-64-1	0	Acetone	T	mg/L	8260	<0.02							
107-02-8	3	Acrolein	T	mg/L	8260	<0.02							
107-13-1	0	Acrylonitrile	T	mg/L	8260	<0.005							
71-43-2	0	Benzene	T	mg/L	8260	0.0076							
108-90-7	1	Benzene, chloro	T	mg/L	8260	<0.001							
1330-20-7	3	Benzene, Dimethyl	T	mg/L	8260	<0.003							
100-42-5	1	Benzene, ethenyl	T	mg/L	8260	<0.001							
108-88-3	1	Benzene, methyl	T	mg/L	8260	<0.001							
74-97-5	0	Bromochloromethane	T	mg/L	8260	<0.001							
75-25-4	3	Bromodichloromethane	T	mg/L	8260	<0.001							
75-25-2	0	Bromoform	T	mg/L	8260	<0.001							
74-83-9	0	Bromomethane	T	mg/L	8260	<0.005							
78-93-3	0	2-Butanone	T	mg/L	8260	<0.02							
110-57-6	0	2-Butene, 1,4-dichloro-, (E)	T	mg/L	8260	<0.001							
75-15-0	0	Carbon disulfide	T	mg/L	8260	<0.005							
75-00-3	0	Chloroethane	T	mg/L	8260	<0.001							
67-66-3	0	Chloroform	T	mg/L	8260	<0.005							

RESIDENTIAL/CONTAINED - QUARTERLY

Permit Number: 033-00004

Facility: BLUE RIDGE LANDFILL

FINDS/UNIT: \_\_\_\_\_ /1

LAB ID: \_\_\_\_\_

For official Use Only

**GROUNDWATER SAMPLE ANALYSIS - (Cont.)**

AKGWA NUMBER <sup>1</sup> , Facility Well/Spring Number						8003-8393							
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-17R							
CAS RN <sup>4</sup>		Constituent	T D <sup>5</sup>	Unit Measure	Method	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S	Detected Value or PQL <sup>5</sup>	F L A G S
74-87-3	0	Chloromethane	T	mg/L	8260	<0.001							
156-59-2	0	cis-1,2-Dichloroethene	T	mg/L	8260	<0.001							
74-95-3	0	Dibromomethane	T	mg/L	8260	<0.001							
75-71-8	0	Dichlorodifluoromethane	-	MG/L	8260	<0.001							
75-34-3	0	1,1-Dichloroethane	T	mg/L	8260	<0.001							
107-06-2	0	1,2-Dichloroethane	T	mg/L	8260	<0.001							
75-35-4	0	1,1-Dichloroethene	T	mg/L	8260	<0.001							
540-36-3	0	1,4-Difluorobenzene	-	MG/L	8260	<0.001							
106-93-4	6	Ethane, 1,2-dibromo	T	mg/L	8260	<0.001							
79-34-5	4	Ethane, 1,1,2,2-Tetrachloro-	T	mg/L	8260	<0.001							
71-55-6	5	Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001							
79-00-5	3	Ethane, 1,1,2-Trichloro-	T	mg/L	8260	<0.001							
630-20-6	3	Ethane, 1,1,1,2-Tetrachloro-	T	mg/L	8260	<0.001							
64-17-5	0	Ethanol	-	MG/L	8260	<0.001							
75-01-4	2	Ethene, Chloro-	T	mg/L	8260	<0.001							
110-75-8	1	Ethene, (2Chloroethoxy)-	-	MG/L	8260	<0.005							
127-18-4	7	Ethene, Tetrachloro-	T	mg/L	8260	<0.001							
79-01-6	5	Ethene, Trichloro-	T	mg/L	8260	<0.001							
100-41-4	0	Ethylbenzene	T	mg/L	8260	<0.001							
97-63-2	0	Ethyl methacrylate	-	MG/L	8260	<0.001							



***APPENDIX D***  
**STATISTICAL EVALUATIONS**

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# Prediction Limit

Blue Ridge Client: Comerstone Environmental Group, LLC Data: Historical Database - Blue Ridge Printed 6/7/2015, 9:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Wells	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MW-7	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Antimony (mg/L)	MW-10	0.25	n/a	4/6/2015	0.25ND	No	25	n/a	n/a	n/a	96	n/a	n/a	0.03846	NP Intra (NDs)
Antimony (mg/L)	MW-13	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Antimony (mg/L)	MW-15R	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	90	n/a	n/a	0.09091	NP Intra (NDs)
Antimony (mg/L)	MW-17R	0.25	n/a	4/6/2015	0.25ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Arsenic (mg/L)	MW-7	0.0198	n/a	4/6/2015	0.01ND	No	10	n/a	0.008442	0.003839	30	Cohen's	No	0.01	Param Intra
Arsenic (mg/L)	MW-10	0.07795	n/a	4/6/2015	0.056700000..	No	47	n/a	n/a	n/a	65.96	n/a	n/a	0.02083	NP Intra (NDs) Deseas
Arsenic (mg/L)	MW-13	0.1156	n/a	4/6/2015	0.05ND	No	11	n/a	0.05067	0.02249	45.45	Cohen's	No	0.01	Param Intra
Arsenic (mg/L)	MW-15R	0.05	n/a	4/6/2015	0.05ND	No	11	n/a	n/a	n/a	36.36	n/a	n/a	0.08333	NP Intra (normality)
Arsenic (mg/L)	MW-17R	0.251	n/a	4/6/2015	0.05ND	No	4	n/a	0.0453	0.04051	0	None	No	0.01	Param Intra
Barium (mg/L)	MW-7	0.3448	n/a	4/6/2015	0.219	No	10	n/a	0.1844	0.0542	0	None	No	0.01	Param Intra
Barium (mg/L)	MW-10	0.884	n/a	4/6/2015	0.0946	No	48	n/a	0.6785	0.1156	12.5	None	x^(1/3)	0.01	Param Intra
Barium (mg/L)	MW-13	48.85	n/a	4/6/2015	15.88	No	23	n/a	n/a	n/a	4.348	n/a	n/a	0.04167	NP Intra (normality) Deseas
Barium (mg/L)	MW-15R	1.867	n/a	4/6/2015	0.0316	No	11	n/a	-2.364	1.035	9.091	None	ln(x)	0.01	Param Intra
Barium (mg/L)	MW-17R	0.2434	n/a	4/6/2015	0.0729	No	4	n/a	0.07993	0.03219	0	None	No	0.01	Param Intra
Beryllium (mg/L)	MW-7	0.01	n/a	4/6/2015	0.01ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Beryllium (mg/L)	MW-10	0.01	n/a	4/6/2015	0.01ND	No	25	n/a	n/a	n/a	100	n/a	n/a	0.03846	NP Intra (NDs)
Beryllium (mg/L)	MW-13	0.08	n/a	4/6/2015	0.08ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Beryllium (mg/L)	MW-15R	0.08	n/a	4/6/2015	0.08ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Beryllium (mg/L)	MW-17R	0.08	n/a	4/6/2015	0.08ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Cadmium (mg/L)	MW-7	0.01	n/a	4/6/2015	0.01ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Cadmium (mg/L)	MW-10	0.01	n/a	4/6/2015	0.01ND	No	25	n/a	n/a	n/a	100	n/a	n/a	0.03846	NP Intra (NDs)
Cadmium (mg/L)	MW-13	0.1	n/a	4/6/2015	0.1ND	No	10	n/a	n/a	n/a	90	n/a	n/a	0.09091	NP Intra (NDs)
Cadmium (mg/L)	MW-15R	0.1	n/a	4/6/2015	0.1ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Cadmium (mg/L)	MW-17R	0.1	n/a	4/6/2015	0.1ND	No	4	n/a	n/a	n/a	75	n/a	n/a	0.2	NP Intra (NDs)
Chemical Oxygen Demand (mg/L)	MW-7	129	n/a	4/6/2015	54.3	No	85	n/a	n/a	n/a	23.53	n/a	n/a	0.01163	NP Intra (normality)
Chemical Oxygen Demand (mg/L)	MW-10	510.4	n/a	4/6/2015	93.6	No	83	n/a	13.61	3.764	0	None	sqrt(x)	0.01	Param Intra
Chemical Oxygen Demand (mg/L)	MW-13	1500	n/a	4/6/2015	237	No	81	n/a	n/a	n/a	2.469	n/a	n/a	0.0122	NP Intra (normality)
Chemical Oxygen Demand (mg/L)	MW-15R	240	n/a	4/6/2015	52.6ND	No	57	n/a	n/a	n/a	29.82	n/a	n/a	0.01724	NP Intra (normality)
Chemical Oxygen Demand (mg/L)	MW-17R	2170	n/a	4/6/2015	68.2	No	16	n/a	n/a	n/a	0	n/a	n/a	0.05882	NP Intra (normality)
<b>Chloride (mg/L)</b>	<b>MW-7</b>	<b>912</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>1020</b>	<b>Yes</b>	<b>82</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01205</b>	<b>NP Intra (normality)</b>
Chloride (mg/L)	MW-10	1051	n/a	4/6/2015	145	No	84	n/a	18.29	5.92	0	None	sqrt(x)	0.01	Param Intra
Chloride (mg/L)	MW-13	16000	n/a	4/6/2015	5200	No	81	n/a	n/a	n/a	1.235	n/a	n/a	0.0122	NP Intra (normality)
Chloride (mg/L)	MW-15R	82.58	n/a	4/6/2015	72	No	31	n/a	57.56	10.02	0	None	No	0.01	Param Intra
Chloride (mg/L)	MW-17R	14000	n/a	4/6/2015	300	No	16	n/a	n/a	n/a	0	n/a	n/a	0.05882	NP Intra (normality)
Chromium (mg/L)	MW-7	0.02	n/a	4/6/2015	0.02ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Chromium (mg/L)	MW-10	0.05	n/a	4/6/2015	0.005	No	48	n/a	n/a	n/a	45.83	n/a	n/a	0.02041	NP Intra (normality)
Chromium (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	22	n/a	n/a	n/a	90.91	n/a	n/a	0.04348	NP Intra (NDs)
Chromium (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	11	n/a	n/a	n/a	100	n/a	n/a	0.08333	NP Intra (NDs)
Chromium (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Cobalt (mg/L)	MW-7	0.02	n/a	4/6/2015	0.02ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Cobalt (mg/L)	MW-10	0.02	n/a	4/6/2015	0.02ND	No	25	n/a	n/a	n/a	92	n/a	n/a	0.03846	NP Intra (NDs)
Cobalt (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	90	n/a	n/a	0.09091	NP Intra (NDs)
Cobalt (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Cobalt (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	75	n/a	n/a	0.2	NP Intra (NDs)
Copper (mg/L)	MW-7	0.01	n/a	4/6/2015	0.01ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Copper (mg/L)	MW-10	0.02	n/a	4/6/2015	0.02ND	No	25	n/a	n/a	n/a	96	n/a	n/a	0.03846	NP Intra (NDs)
Copper (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Copper (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	60	n/a	n/a	0.09091	NP Intra (NDs)
Copper (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	50	n/a	n/a	0.2	NP Intra (Cohens/xform)

# Prediction Limit

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge Printed 6/7/2015, 9:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Wells	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Iron (mg/L)	MW-7	172	n/a	4/6/2015	4.49	No	86	n/a	n/a	n/a	0	n/a	n/a	0.01149	NP Intra (normality)
Iron (mg/L)	MW-10	56.63	n/a	4/6/2015	3.654788819..	No	83	n/a	n/a	n/a	1.205	n/a	n/a	0.0119	NP Intra (normality) Deseas
<b>Iron (mg/L)</b>	<b>MW-13</b>	<b>8.59</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>11.5</b>	<b>Yes</b>	<b>81</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>33.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0122</b>	<b>NP Intra (normality)</b>
Iron (mg/L)	MW-15R	59.13	n/a	4/6/2015	11.6	No	58	n/a	2.028	0.7738	0	None	x^(1/3)	0.01	Param Intra
Iron (mg/L)	MW-17R	145	n/a	4/6/2015	2ND	No	16	n/a	0.566	1.644	12.5	None	ln(x)	0.01	Param Intra
Lead (mg/L)	MW-7	0.03	n/a	4/6/2015	0.03ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Lead (mg/L)	MW-10	0.03	n/a	4/6/2015	0.03ND	No	25	n/a	n/a	n/a	88	n/a	n/a	0.03846	NP Intra (NDs)
Lead (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Lead (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	90	n/a	n/a	0.09091	NP Intra (NDs)
Lead (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Mercury (mg/L)	MW-7	0.0002	n/a	4/6/2015	0.0002ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Mercury (mg/L)	MW-10	0.0002	n/a	4/6/2015	0.0002ND	No	25	n/a	n/a	n/a	100	n/a	n/a	0.03846	NP Intra (NDs)
Mercury (mg/L)	MW-13	0.0002	n/a	4/6/2015	0.0002ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Mercury (mg/L)	MW-15R	0.0002	n/a	4/6/2015	0.0002ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Mercury (mg/L)	MW-17R	0.0002	n/a	4/6/2015	0.0002ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Nickel (mg/L)	MW-7	0.02	n/a	4/6/2015	0.02ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Nickel (mg/L)	MW-10	0.1168	n/a	4/6/2015	0.02553	No	46	n/a	0.3363	0.06257	13.04	None	x^(1/3)	0.01	Param Intra Deseas
Nickel (mg/L)	MW-13	0.36	n/a	4/6/2015	0.36ND	No	22	n/a	n/a	n/a	72.73	n/a	n/a	0.04348	NP Intra (NDs)
Nickel (mg/L)	MW-15R	0.1	n/a	4/6/2015	0.0025	No	11	n/a	n/a	n/a	0	n/a	n/a	0.08333	NP Intra (normality)
Nickel (mg/L)	MW-17R	0.36	n/a	4/6/2015	0.36ND	No	4	n/a	n/a	n/a	50	n/a	n/a	0.2	NP Intra (Cohens/xform)
Nitrate as N (mg/L)	MW-7	5	n/a	4/6/2015	1	No	24	n/a	n/a	n/a	100	n/a	n/a	0.04	NP Intra (NDs)
Nitrate as N (mg/L)	MW-10	5	n/a	4/6/2015	5ND	No	25	n/a	n/a	n/a	80	n/a	n/a	0.03846	NP Intra (NDs)
Nitrate as N (mg/L)	MW-13	12	n/a	4/6/2015	1.7	No	39	n/a	n/a	n/a	28.21	n/a	n/a	0.025	NP Intra (Cohens/xform)
Nitrate as N (mg/L)	MW-15R	6.5	n/a	4/6/2015	5ND	No	25	n/a	n/a	n/a	32	n/a	n/a	0.03846	NP Intra (normality)
Nitrate as N (mg/L)	MW-17R	8	n/a	4/6/2015	8ND	No	4	n/a	n/a	n/a	75	n/a	n/a	0.2	NP Intra (NDs)
pH (SU)	MW-7	8.5	6.62	4/6/2015	7.28	No	87	n/a	n/a	n/a	0	n/a	n/a	0.02273	NP Intra (normality)
pH (SU)	MW-10	8.07	6.12	4/6/2015	7.77	No	84	n/a	n/a	n/a	0	n/a	n/a	0.02353	NP Intra (normality)
pH (SU)	MW-13	8.18	5.66	4/6/2015	7.32	No	82	n/a	n/a	n/a	0	n/a	n/a	0.0241	NP Intra (normality)
pH (SU)	MW-15R	8.54	4.5	4/6/2015	7.16	No	59	n/a	n/a	n/a	0	n/a	n/a	0.03333	NP Intra (normality)
pH (SU)	MW-17R	8.929	5.678	4/6/2015	7.82	No	14	n/a	7.304	0.5212	0	None	No	0.005	Param Intra
Selenium (mg/L)	MW-7	0.016	n/a	4/6/2015	0.016ND	No	27	n/a	n/a	n/a	100	n/a	n/a	0.03571	NP Intra (NDs)
Selenium (mg/L)	MW-10	0.2	n/a	4/6/2015	0.2ND	No	48	n/a	n/a	n/a	83.33	n/a	n/a	0.02041	NP Intra (NDs)
Selenium (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	22	n/a	n/a	n/a	90.91	n/a	n/a	0.04348	NP Intra (NDs)
Selenium (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	60	n/a	n/a	0.09091	NP Intra (NDs)
Selenium (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Silver (mg/L)	MW-7	0.01	n/a	4/6/2015	0.01ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Silver (mg/L)	MW-10	0.01	n/a	4/6/2015	0.01ND	No	25	n/a	n/a	n/a	100	n/a	n/a	0.03846	NP Intra (NDs)
Silver (mg/L)	MW-13	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Silver (mg/L)	MW-15R	0.2	n/a	4/6/2015	0.2ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Silver (mg/L)	MW-17R	0.2	n/a	4/6/2015	0.2ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
Sodium (mg/L)	MW-7	1290	n/a	4/6/2015	1080	No	82	n/a	n/a	n/a	0	n/a	n/a	0.01205	NP Intra (normality)
Sodium (mg/L)	MW-10	1160	n/a	4/6/2015	562	No	82	n/a	n/a	n/a	0	n/a	n/a	0.01205	NP Intra (normality)
Sodium (mg/L)	MW-13	4720	n/a	4/6/2015	3200	No	80	n/a	n/a	n/a	0	n/a	n/a	0.01235	NP Intra (normality)
Sodium (mg/L)	MW-15R	355.6	n/a	4/6/2015	344	No	31	n/a	247.9	43.13	0	None	No	0.01	Param Intra
Sodium (mg/L)	MW-17R	9850	n/a	4/6/2015	1170	No	15	n/a	n/a	n/a	0	n/a	n/a	0.0625	NP Intra (normality)
<b>Specific Conductance (umhos/cm)</b>	<b>MW-7</b>	<b>4724</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>4900</b>	<b>Yes</b>	<b>84</b>	<b>n/a</b>	<b>3193</b>	<b>641.6</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param Intra</b>
Specific Conductance (umhos/cm)	MW-10	5274	n/a	4/6/2015	2044	No	84	n/a	50.43	9.302	0	None	sqrt(x)	0.01	Param Intra
Specific Conductance (umhos/cm)	MW-13	18600	n/a	4/6/2015	14560	No	83	n/a	n/a	n/a	0	n/a	n/a	0.0119	NP Intra (normality)
<b>Specific Conductance (umhos/cm)</b>	<b>MW-15R</b>	<b>3594</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>3839</b>	<b>Yes</b>	<b>31</b>	<b>n/a</b>	<b>2344</b>	<b>500.6</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param Intra</b>
Specific Conductance (umhos/cm)	MW-17R	20000	n/a	4/6/2015	4445	No	15	n/a	n/a	n/a	0	n/a	n/a	0.0625	NP Intra (normality)

# Prediction Limit

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge Printed 6/7/2015, 9:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Wells	Bq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Temperature (degree-C)	MW-7	19.52	n/a	4/6/2015	15.57	No	78	n/a	15.28	1.774	0	None	No	0.01	Param Intra Deseas
Temperature (degree-C)	MW-10	26.01	n/a	4/6/2015	17.35	No	75	n/a	n/a	n/a	0	n/a	n/a	0.01316	NP Intra (normality) Deseas
Temperature (degree-C)	MW-13	18.34	n/a	4/6/2015	14.7	No	74	n/a	n/a	n/a	0	n/a	n/a	0.01333	NP Intra (normality) Deseas
Temperature (degree-C)	MW-15R	27.95	n/a	4/6/2015	23.7	No	48	n/a	10659	4590	0	None	x^3	0.01	Param Intra
Temperature (degree-C)	MW-17R	18.86	n/a	4/6/2015	14.74	No	15	n/a	3361	1236	0	None	x^3	0.01	Param Intra Deseas
Thallium (mg/L)	MW-7	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Thallium (mg/L)	MW-10	0.25	n/a	4/6/2015	0.25ND	No	25	n/a	n/a	n/a	96	n/a	n/a	0.03846	NP Intra (NDs)
Thallium (mg/L)	MW-13	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Thallium (mg/L)	MW-15R	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Thallium (mg/L)	MW-17R	0.25	n/a	4/6/2015	0.25ND	No	4	n/a	n/a	n/a	100	n/a	n/a	0.2	NP Intra (NDs)
<b>Total Dissolved Solids (mg/L)</b>	<b>MW-7</b>	<b>2580</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>2860</b>	<b>Yes</b>	<b>80</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01235</b>	<b>NP Intra (normality)</b>
Total Dissolved Solids (mg/L)	MW-10	3100	n/a	4/6/2015	1290	No	83	n/a	n/a	n/a	0	n/a	n/a	0.0119	NP Intra (normality)
Total Dissolved Solids (mg/L)	MW-13	10600	n/a	4/6/2015	8750	No	81	n/a	n/a	n/a	0	n/a	n/a	0.0122	NP Intra (normality)
Total Dissolved Solids (mg/L)	MW-15R	3327	n/a	4/6/2015	2660	No	29	n/a	44.92	5.084	0	None	sqrt(x)	0.01	Param Intra
Total Dissolved Solids (mg/L)	MW-17R	32100	n/a	4/6/2015	2950	No	16	n/a	n/a	n/a	0	n/a	n/a	0.05882	NP Intra (normality)
Total Organic Carbon (mg/L)	MW-7	19.4	n/a	4/6/2015	1ND	No	88	n/a	n/a	n/a	9.091	n/a	n/a	0.01124	NP Intra (normality)
Total Organic Carbon (mg/L)	MW-10	179.3	n/a	4/6/2015	37.1	No	86	n/a	7.674	2.396	0	None	sqrt(x)	0.01	Param Intra
Total Organic Carbon (mg/L)	MW-13	5.3	n/a	4/6/2015	5ND	No	81	n/a	n/a	n/a	54.32	n/a	n/a	0.0122	NP Intra (NDs)
Total Organic Carbon (mg/L)	MW-15R	15.47	n/a	4/6/2015	10.9	No	57	n/a	7.365	3.353	1.754	None	No	0.01	Param Intra
Total Organic Carbon (mg/L)	MW-17R	115.7	n/a	4/6/2015	21.2	No	16	n/a	39.74	28.31	0	None	No	0.01	Param Intra
TOX [Total Organic Halides] (mg/L)	MW-7	0.539	n/a	4/6/2015	0.21	No	84	n/a	n/a	n/a	34.52	n/a	n/a	0.01176	NP Intra (normality)
<b>TOX [Total Organic Halides] (mg/L)</b>	<b>MW-10</b>	<b>1</b>	<b>n/a</b>	<b>4/6/2015</b>	<b>3.3</b>	<b>Yes</b>	<b>81</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>3.704</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0122</b>	<b>NP Intra (normality)</b>
TOX [Total Organic Halides] (mg/L)	MW-13	1.707	n/a	4/6/2015	0.16	No	80	n/a	-2.092	1.1	6.25	None	ln(x)	0.01	Param Intra
TOX [Total Organic Halides] (mg/L)	MW-15R	1	n/a	4/6/2015	0.071	No	55	n/a	n/a	n/a	30.91	n/a	n/a	0.01786	NP Intra (normality)
TOX [Total Organic Halides] (mg/L)	MW-17R	6.844	n/a	4/6/2015	0.13	No	15	n/a	1.061	0.5737	0	None	sqrt(x)	0.01	Param Intra
Vanadium (mg/L)	MW-7	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Vanadium (mg/L)	MW-10	0.25	n/a	4/6/2015	0.0073	No	25	n/a	n/a	n/a	48	n/a	n/a	0.03846	NP Intra (normality)
Vanadium (mg/L)	MW-13	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Vanadium (mg/L)	MW-15R	0.25	n/a	4/6/2015	0.25ND	No	10	n/a	n/a	n/a	70	n/a	n/a	0.09091	NP Intra (NDs)
Vanadium (mg/L)	MW-17R	0.25	n/a	4/6/2015	0.25ND	No	4	n/a	n/a	n/a	75	n/a	n/a	0.2	NP Intra (NDs)
Zinc (mg/L)	MW-7	0.02	n/a	4/6/2015	0.02ND	No	10	n/a	n/a	n/a	100	n/a	n/a	0.09091	NP Intra (NDs)
Zinc (mg/L)	MW-10	0.051	n/a	4/6/2015	0.03ND	No	25	n/a	n/a	n/a	72	n/a	n/a	0.03846	NP Intra (NDs)
Zinc (mg/L)	MW-13	0.4	n/a	4/6/2015	0.4ND	No	10	n/a	n/a	n/a	30	n/a	n/a	0.09091	NP Intra (normality)
Zinc (mg/L)	MW-15R	0.4	n/a	4/6/2015	0.4ND	No	10	n/a	n/a	n/a	20	n/a	n/a	0.09091	NP Intra (Cohens/xform)
Zinc (mg/L)	MW-17R	0.66	n/a	4/6/2015	0.4ND	No	4	n/a	n/a	n/a	50	n/a	n/a	0.2	NP Intra (Cohens)

Exceeds Limit

Prediction Limit  
Intrawell Non-parametric

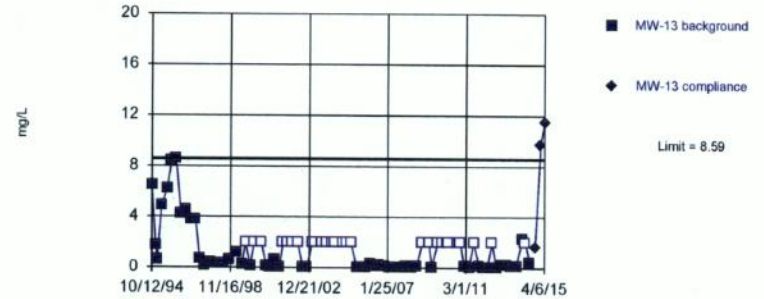


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 82 background values. Report alpha = 0.01205. Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 6/7/2015 9:31 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Exceeds Limit

Prediction Limit  
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 81 background values. 33.33% NDs. Report alpha = 0.0122. Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Iron Analysis Run 6/7/2015 9:31 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Exceeds Limit

Prediction Limit  
Intrawell Parametric

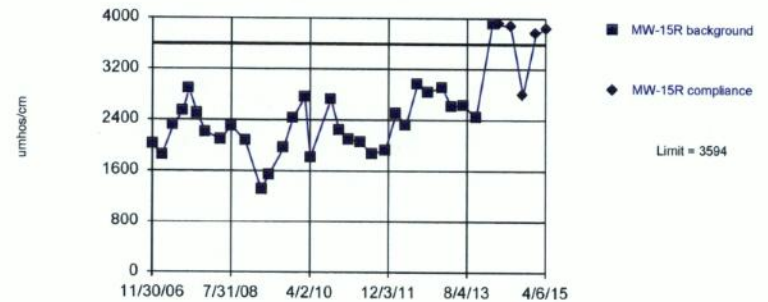


Background Data Summary: Mean=3193, Std. Dev.=641.6, n=84. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9812, critical = 0.971. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Specific Conductance Analysis Run 6/7/2015 9:32 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Exceeds Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=2344, Std. Dev.=500.6, n=31. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9621, critical = 0.929. Report alpha = 0.01. Most recent point compared to limit.

Constituent: Specific Conductance Analysis Run 6/7/2015 9:32 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Exceeds Limit

### Prediction Limit Intrawell Non-parametric

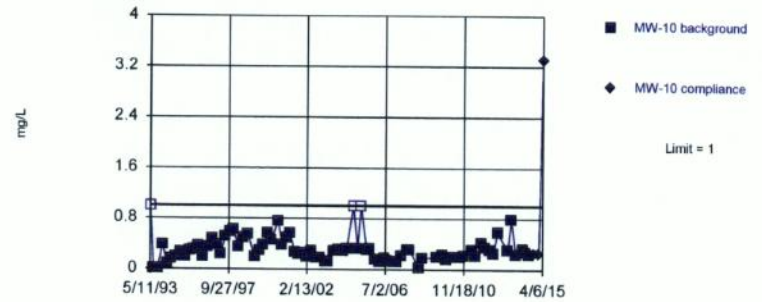


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 80 background values. Report alpha = 0.01235. Most recent point compared to limit. Seasonality was not detected with 95% confidence.

Constituent: Total Dissolved Solids Analysis Run 6/7/2015 9:32 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Exceeds Limit

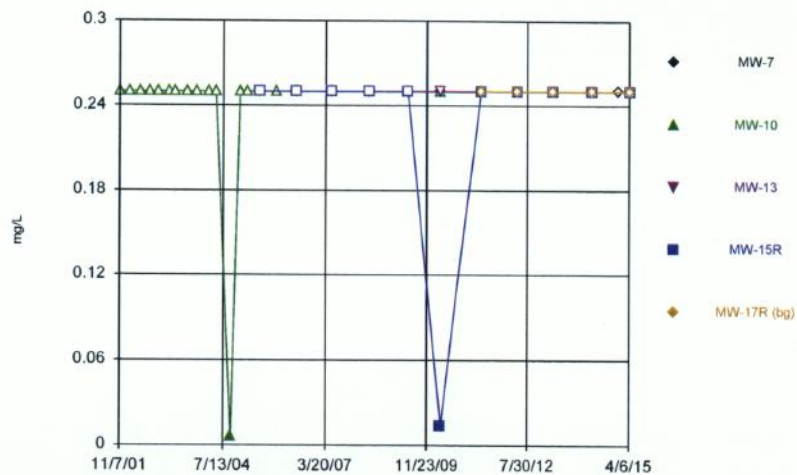
### Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 81 background values. 3.704% NDs. Report alpha = 0.0122. Most recent point compared to limit. Seasonality was not detected with 95% confidence.

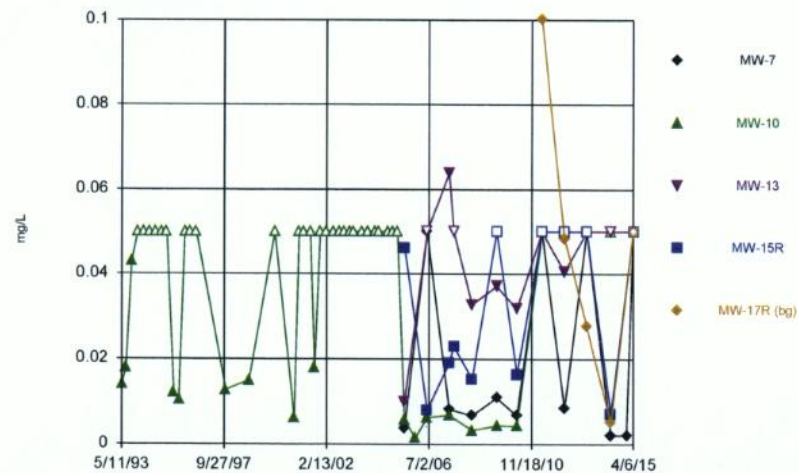
Constituent: TOX [Total Organic Halides] Analysis Run 6/7/2015 9:33 PM View: Long List  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



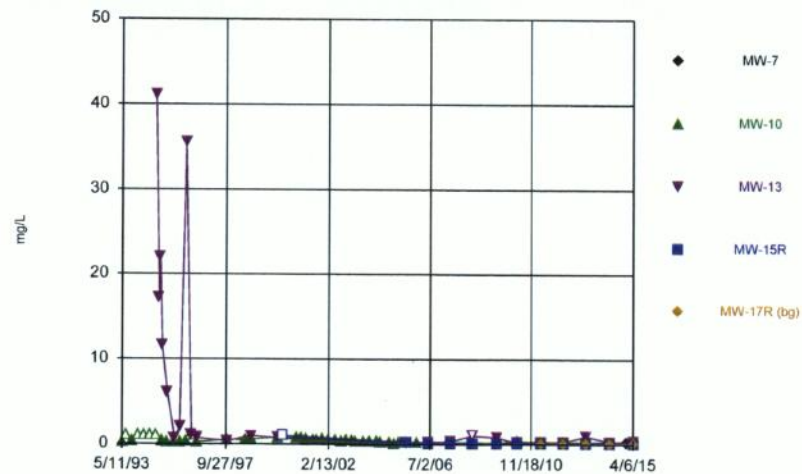
Constituent: Antimony Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



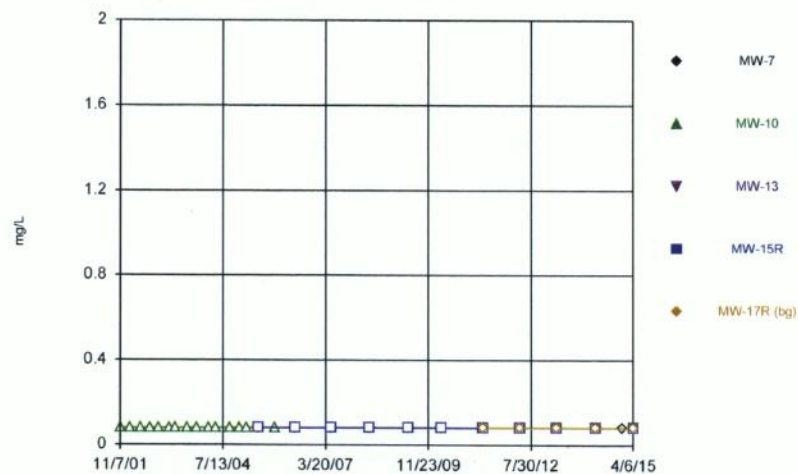
Constituent: Arsenic Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Barium Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Beryllium Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Antimony (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.25			
2/6/2002		<0.25			
5/22/2002		<0.25			
8/21/2002		<0.25			
11/7/2002		<0.25			
2/21/2003		<0.25			
4/16/2003		<0.25			
8/15/2003		<0.25			
11/12/2003		<0.25			
3/3/2004		<0.25			
5/4/2004		<0.25			
9/21/2004		0.0059			
12/15/2004		<0.25			
2/22/2005		<0.25			
6/16/2005	<0.25	<0.25	<0.25		
6/17/2005				<0.25	
12/1/2005		<0.25			
6/5/2006			<0.25		
6/6/2006	<0.25	<0.25		<0.25	
5/14/2007	<0.25	<0.25	<0.25	<0.25	
5/6/2008			<0.25		
5/7/2008	<0.25	<0.25		<0.25	
5/20/2009	<0.25	<0.25	<0.25	<0.25	
4/6/2010	<0.25	<0.25	<0.25	0.0137	
4/29/2011	<0.25	<0.25	<0.25	<0.25	<0.25
4/17/2012	<0.25	<0.25	<0.25	<0.25	<0.25
4/4/2013	<0.25	<0.25	<0.25	<0.25	<0.25
4/10/2014	<0.25	<0.25	<0.25	<0.25	<0.25
12/16/2014	<0.25				
4/6/2015	<0.25	<0.25	<0.25	<0.25	<0.25

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993		0.014			
7/16/1993		0.018			
10/11/1993		0.043			
1/13/1994		<0.05			
4/20/1994		<0.05			
7/13/1994		<0.05			
10/12/1994		<0.05			
1/23/1995		<0.05			
4/13/1995		<0.05			
8/2/1995		0.0122			
10/18/1995		0.0105			
1/18/1996		<0.05			
4/17/1996		<0.05			
7/17/1996		<0.05			
10/22/1997		0.0128			
10/20/1998		0.015			
11/30/1999		<0.05			
9/26/2000		0.0063			
12/12/2000		<0.05			
2/27/2001		<0.05			
6/6/2001		<0.05			
8/15/2001		0.018			
11/7/2001		<0.05			
2/6/2002		<0.05			
5/22/2002		<0.05			
8/21/2002		<0.05			
11/7/2002		<0.05			
2/21/2003		<0.05			
4/16/2003		<0.05			
8/15/2003		<0.05			
11/12/2003		<0.05			
3/3/2004		<0.05			
5/4/2004		<0.05			
9/21/2004		<0.05			
12/15/2004		<0.05			
2/22/2005		<0.05			
6/16/2005	0.0038	0.0056	0.01		
6/17/2005				0.046	
12/1/2005		0.0015			
6/5/2006			<0.05		
6/6/2006	<0.05	0.0063		0.0079	
5/14/2007	0.0082	0.0068	0.064	0.019	
7/23/2007			<0.05	0.023	
5/6/2008			0.0328		
5/7/2008	0.00674	0.0033		0.0153	
5/20/2009	0.0109	0.00438	0.0371	<0.05	
4/6/2010	0.00671	0.00425	0.0318	0.0164	
4/29/2011	<0.05	<0.05	<0.05	<0.05	0.1
4/17/2012	0.00839	<0.05	0.0406	<0.05	0.0484
4/4/2013	<0.05	<0.05	<0.05	<0.05	0.0276
4/10/2014	0.002	<0.05	<0.05	0.0071	0.0052
12/16/2014	0.0022				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/6/2015	<0.05	<0.05	<0.05	<0.05	<0.05

# Time Series

Constituent: Barium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993		0.211			
7/16/1993		<1			
10/11/1993		0.285			
1/13/1994		<1			
4/20/1994		<1			
7/13/1994		<1			
10/12/1994		<1	41.1		
12/6/1994			17.2		
12/23/1994			22.1		
1/23/1995		0.282	11.6		
4/13/1995		0.239	6.05		
8/2/1995		0.261	0.614		
10/18/1995		0.226	1.96		
1/18/1996		0.322	35.6		
4/17/1996		<1	1		
7/17/1996		0.253	0.703		
10/22/1997		0.535	0.354		
7/14/1998		0.476			
10/20/1998		0.57	0.97		
11/30/1999		0.83	0.7		
2/15/2000				<1	
9/26/2000		0.71			
12/12/2000		0.72			
2/27/2001		0.68			
6/6/2001		0.47			
8/15/2001		0.52			
11/7/2001		0.57			
2/6/2002		0.52			
5/22/2002		0.43			
8/21/2002		0.39			
11/7/2002		0.51			
2/21/2003		0.43			
4/16/2003		0.4			
8/15/2003		0.33			
11/12/2003		0.3			
3/3/2004		0.29			
5/4/2004		0.25			
9/21/2004		0.21			
12/15/2004		0.048			
2/22/2005		0.27			
6/16/2005	0.14	0.25	0.18		
6/17/2005				0.24	
12/1/2005		0.25			
6/5/2006			0.24		
6/6/2006	0.16	0.23		0.13	
5/14/2007	0.14	0.24	0.32	0.12	
5/6/2008			<1		
5/7/2008	0.139	0.237		0.107	
5/20/2009	0.0997	0.174	0.79	0.0616	
4/6/2010	0.228	0.373	0.157	0.128	
4/29/2011	0.24	0.27	0.27	0.04	0.12
4/17/2012	0.25	0.252	0.227	0.0321	0.0667

# Time Series

Constituent: Barium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/4/2013	0.211	0.164	0.942	0.0353	0.0445
4/10/2014	0.236	0.103	0.271	0.0355	0.0885
12/16/2014	0.209				
4/6/2015	0.219	0.0946	0.284	0.0316	0.0729

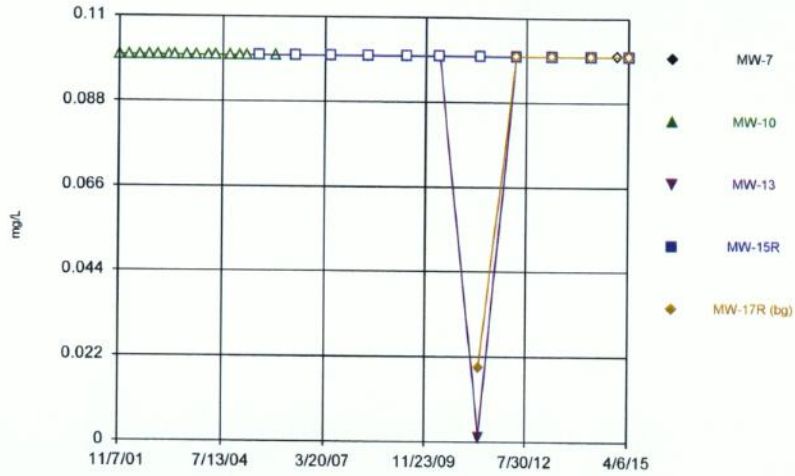
# Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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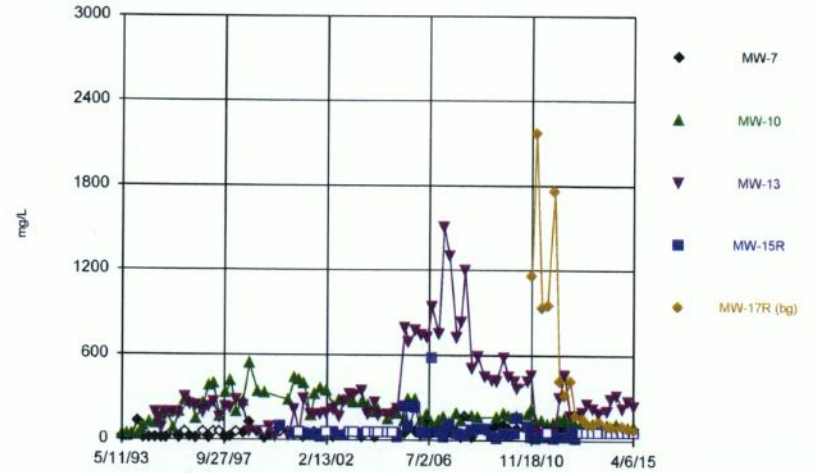
	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.08			
2/6/2002		<0.08			
5/22/2002		<0.08			
8/21/2002		<0.08			
11/7/2002		<0.08			
2/21/2003		<0.08			
4/16/2003		<0.08			
8/15/2003		<0.08			
11/12/2003		<0.08			
3/3/2004		<0.08			
5/4/2004		<0.08			
9/21/2004		<0.08			
12/15/2004		<0.08			
2/22/2005		<0.08			
6/16/2005	<0.08	<0.08	<0.08		
6/17/2005				<0.08	
12/1/2005		<0.08			
6/5/2006			<0.08		
6/6/2006	<0.08	<0.08		<0.08	
5/14/2007	<0.08	<0.08	<0.08	<0.08	
5/6/2008			<0.08		
5/7/2008	<0.08	<0.08		<0.08	
5/20/2009	<0.08	<0.08	<0.08	<0.08	
4/6/2010	<0.08	<0.08	<0.08	<0.08	
4/29/2011	<0.08	<0.08	<0.08	<0.08	<0.08
4/17/2012	<0.08	<0.08	<0.08	<0.08	<0.08
4/4/2013	<0.08	<0.08	<0.08	<0.08	<0.08
4/10/2014	<0.08	<0.08	<0.08	<0.08	<0.08
12/16/2014	<0.08				
4/6/2015	<0.08	<0.08	<0.08	<0.08	<0.08

Time Series



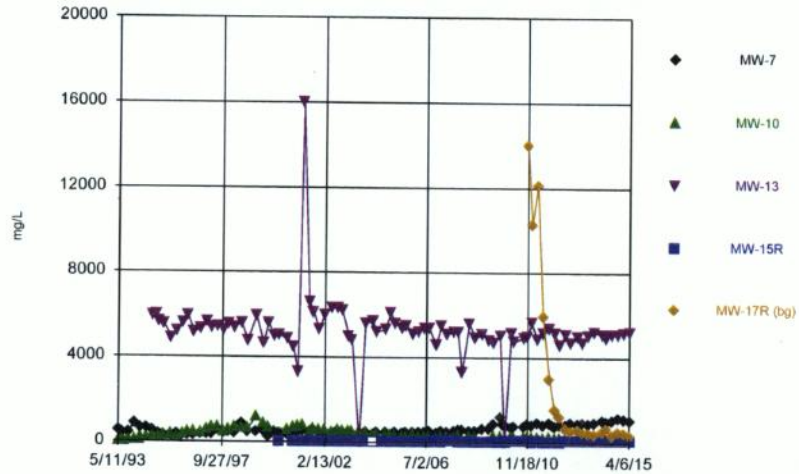
Constituent: Cadmium Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



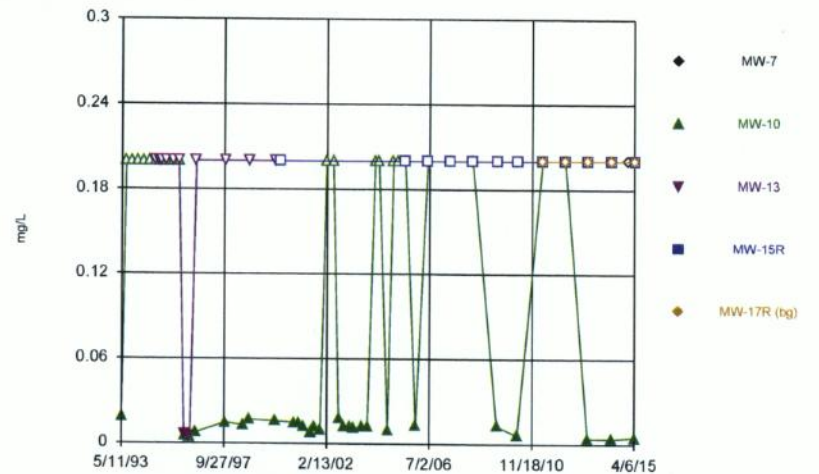
Constituent: Chemical Oxygen Demand Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Chloride Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Chromium Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.1			
2/6/2002		<0.1			
5/22/2002		<0.1			
8/21/2002		<0.1			
11/7/2002		<0.1			
2/21/2003		<0.1			
4/16/2003		<0.1			
8/15/2003		<0.1			
11/12/2003		<0.1			
3/3/2004		<0.1			
5/4/2004		<0.1			
9/21/2004		<0.1			
12/15/2004		<0.1			
2/22/2005		<0.1			
6/16/2005	<0.1	<0.1	<0.1		
6/17/2005				<0.1	
12/1/2005		<0.1			
6/5/2006			<0.1		
6/6/2006	<0.1	<0.1		<0.1	
5/14/2007	<0.1	<0.1	<0.1	<0.1	
5/6/2008			<0.1		
5/7/2008	<0.1	<0.1		<0.1	
5/20/2009	<0.1	<0.1	<0.1	<0.1	
4/6/2010	<0.1	<0.1	<0.1	<0.1	
4/29/2011	<0.1	<0.1	0.0011	<0.1	0.019
4/17/2012	<0.1	<0.1	<0.1	<0.1	<0.1
4/4/2013	<0.1	<0.1	<0.1	<0.1	<0.1
4/10/2014	<0.1	<0.1	<0.1	<0.1	<0.1
12/16/2014	<0.1				
4/6/2015	<0.1	<0.1	<0.1	<0.1	<0.1

## Time Series

Constituent: Chemical Oxygen Demand (mg/L)    Analysis Run 6/2/2015 12:46 PM    View: Time Series  
 Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	21	35			
7/16/1993	17	24			
8/4/1993		36			
10/11/1993	22	38			
1/13/1994	129	32			
3/29/1994		61			
4/20/1994	16	98			
7/13/1994	13	125			
10/12/1994	10	112	184		
12/6/1994		148			
12/23/1994			149		
1/23/1995	10	173	80		
4/13/1995	14	192	187		
8/2/1995	<52.6	76	184		
10/18/1995	11	195	176		
1/18/1996	<52.6	282	300		
4/17/1996	18	264	243		
7/17/1996	15	148	234		
11/7/1996	<52.6	256	188		
1/22/1997	10	382	229		
4/8/1997	<52.6	398	263		
7/14/1997	<52.6	162	156		
10/22/1997	12	329	228		
1/7/1998	22	414	218		
4/6/1998	<52.6	197	276		
7/14/1998	46	274	235		
10/20/1998	124	535	52		
3/3/1999	<52.6	338	57		
6/22/1999	12.4	332	<52.6		
8/31/1999	27.1		88		
11/30/1999	<52.6		21		
2/15/2000	<52.6		92	100	
6/27/2000	<52.6	283	27		
9/26/2000	39	440	210	45	
12/12/2000	<52.6	420	<52.6	<52.6	
2/27/2001	21	400	290	50	
6/6/2001	29	170	180	29	
8/15/2001	<52.6	320	180	36	
11/7/2001	41	360	180	24	
2/6/2002	<52.6	350	190	<52.6	
5/22/2002	25	240	210	57	
8/21/2002	31	280	160	29	
11/7/2002	37	280	270	28	
2/21/2003	<52.6	300	320	<52.6	
4/16/2003	<52.6	260	310	<52.6	
8/14/2003			350	44	
8/15/2003	20	260			
11/12/2003	<52.6	250	180	<52.6	
3/3/2004	24	200	260	<52.6	
5/4/2004	<52.6	210	170	<52.6	
9/21/2004	<52.6	150	180	<52.6	
12/15/2004	<52.6	200	180	<52.6	

# Time Series

Constituent: Chemical Oxygen Demand (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
2/22/2005	<52.6	190	220	22	
6/16/2005	46	140	790		
6/17/2005				240	
8/17/2005	67	290	690	100	
11/30/2005	65		770		
12/1/2005		290		230	
3/7/2006				58	
3/8/2006		140	740		
3/9/2006	40				
6/5/2006			720		
6/6/2006	110	180		48	
8/10/2006	49	120	940		
11/30/2006				53	
12/1/2006	100	140	750		
2/12/2007	61			25	
2/13/2007		160	1500		
5/14/2007	52	120	1300	105	
9/10/2007	66	190	720	49	
11/11/2007		140	830		
11/12/2007				39	
11/13/2007	24				
1/15/2008			1200	33	
5/6/2008			502		
5/7/2008	21.9	175		72.8	
8/5/2008		163	587	81.3	
8/6/2008	67.2				
11/19/2008			443	77.4	
11/20/2008	69				
3/23/2009			426		
3/24/2009	76.8			31.6	
5/20/2009	102	164	412	14.6	
9/9/2009		189	584		
9/10/2009	106			47	
11/23/2009	83.2	175	444	41.4	
2/23/2010	60.6	157	417	49.3	
4/6/2010	77.7	174	360	152	
9/13/2010	82.7	177	414	93.8	
11/17/2010			455	24.2	
11/18/2010	88.3	211			1160
1/27/2011		140	68	11.8	
1/28/2011	17.3				2170
4/29/2011	28	135	45.7	19.9	933
7/26/2011		116	64.6	<52.6	946
7/27/2011	26.3				
11/10/2011	21.2	125	50.6	11.7	1760
1/31/2012	85.8	140	300		414
2/1/2012				17	
4/17/2012	77.2	157	458	19.8	312
7/17/2012	77.5	131	169	51.3	410
10/4/2012	60.8	116	168	11.3	175
1/24/2013	57.6	117	196	<52.6	151
4/4/2013	50.8	105	257	<52.6	112

# Time Series

Constituent: Chemical Oxygen Demand (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
7/11/2013	53	112	220	<52.6	103
10/14/2013	65.4	114	189	<52.6	128
2/17/2014	75.1	108	206	<52.6	98.7
4/10/2014	53.2	89.6	285	<52.6	98.7
7/8/2014	73.6	112	317	<52.6	85
10/13/2014	78.2	98.7	224	<52.6	94.1
1/21/2015	<52.6	89	269	<52.6	77.4
4/6/2015	54.3	93.6	237	<52.6	68.2

# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	554	19			
7/16/1993	438	30			
8/4/1993		35			
10/11/1993	435	79			
1/13/1994	842	92			
3/29/1994		95			
4/20/1994	622	179			
7/13/1994	639	214			
10/12/1994	519	236	5910		
12/6/1994		211			
12/23/1994			5990		
1/23/1995	347	274	5630		
4/13/1995	331	297	5520		
8/2/1995	287	352	4890		
10/18/1995	386	238	5200		
1/18/1996	329	372	5610		
4/17/1996	314	490	5910		
7/17/1996	307	474	5170		
11/7/1996	336	438	5330		
1/22/1997	358	598	5650		
4/8/1997	364	722	5360		
7/14/1997	600	718	5430		
10/22/1997	397	479	5250		
1/7/1998	457	572	5570		
4/6/1998	435	713	5400		
7/14/1998	889	674	5600		
10/20/1998	452	614	4790		
3/3/1999	484	1180	5940		
6/22/1999	522	850	4660		
8/31/1999	262	718	5590		
11/30/1999	479		5010		
2/15/2000	409		5040	27.4	
6/27/2000	377	564	4850		
9/26/2000	460	710	4500	27	
12/12/2000	480	770	3300	24	
2/27/2001	530	800	16000	34	
6/6/2001	470	500	6600	29	
8/15/2001	570	650	6100	22	
11/7/2001	450	610	5300	21	
2/6/2002	410	600	6000	22	
5/22/2002	430	460	6300	23	
8/21/2002	520	570	6300	27	
11/7/2002	470	520	6200	25	
2/21/2003	370	530	5000	25	
4/16/2003	390	530	4800	25	
8/14/2003			<50	28	
8/15/2003	390	510			
11/12/2003	450	480	5600	21	
3/3/2004	380	370	5700	<50	
5/4/2004	450	410	5200	26	
9/21/2004	470	430	5300	25	
12/15/2004	380	370	6100	26	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
2/22/2005	470	360	5600	25	
6/16/2005	430	310	5400		
6/17/2005				30	
8/17/2005	450	330	5500	35	
11/30/2005	470		5100		
12/1/2005		390		46	
3/7/2006				36	
3/8/2006		330	5200		
3/9/2006	490				
6/5/2006			5400		
6/6/2006	470	310		45	
8/10/2006	510	290	5400	39	
11/30/2006				63	
12/1/2006	420	230	4600		
2/12/2007	530			48	
2/13/2007		290	5500		
5/14/2007	470	260	5100	64	
7/23/2007				79	
9/10/2007	520	230	5200	56	
11/11/2007		340	5200		
11/12/2007				55	
11/13/2007	560				
1/15/2008	560		3300	44	
5/6/2008			5620		
5/7/2008	524	288		48.2	
8/5/2008		267	4940	48	
8/6/2008	525				
11/19/2008			5080	54	
11/20/2008	640				
3/23/2009			4820		
3/24/2009	627			42.3	
5/20/2009	873	294	4720	41.5	
9/9/2009		299	5020		
9/10/2009				49.8	
10/21/2009	883				
11/23/2009	783	28.1	49.5	57.1	
2/23/2010	699	286	5150	69.6	
4/6/2010	732	269	4750	72	
9/13/2010	775	272	4950	69.3	
11/17/2010			4990	62.8	
11/18/2010	843	270			14000
1/27/2011		267	5640	54	
1/28/2011	830				10300
4/29/2011	895	234	4870	64.5	12100
7/26/2011		211	5150	46.4	5950
7/27/2011	792				
11/10/2011	912	242	5370	48.6	3000
1/5/2012	797				
1/31/2012	767	217	5150		1540
2/1/2012				52.4	
4/17/2012	806	212	4580	50.8	1210
7/17/2012	830	131	5110	56.3	622

# Time Series

Constituent: Chloride (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
10/4/2012	910	140	4700	58.5	517
1/24/2013	869	157	5000	62.8	576
4/4/2013	859	161	4700	60.8	490
7/11/2013	859	157	5040	63.4	392
10/14/2013	933	153	5220	62.2	382
2/17/2014	1050	156	5090	80	456
4/10/2014	967	141	4950	74	651
7/8/2014	1030	141	5090	77.8	331
10/13/2014	1120	136	5120	65.3	497
1/21/2015	1070	138	5170	70.3	395
4/6/2015	1020	145	5200	72	300

# Time Series

Constituent: Chromium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993		0.019			
7/16/1993		<0.2			
10/11/1993		<0.2			
1/13/1994		<0.2			
4/20/1994		<0.2			
7/13/1994		<0.2			
10/12/1994		<0.2	<0.2		
12/23/1994			<0.2		
1/23/1995		<0.2	<0.2		
4/13/1995		<0.2	<0.2		
8/2/1995		<0.2	<0.2		
10/18/1995		<0.2	<0.2		
1/18/1996		0.0058	0.0062		
4/17/1996		0.005	0.0042		
7/17/1996		0.0078	<0.2		
10/22/1997		0.015	<0.2		
7/14/1998		0.0129			
10/20/1998		0.017	<0.2		
11/30/1999		0.016	<0.2		
2/15/2000				<0.2	
9/26/2000		0.015			
12/12/2000		0.015			
2/27/2001		0.012			
6/6/2001		0.0077			
8/15/2001		0.012			
11/7/2001		0.0095			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		0.018			
11/7/2002		0.012			
2/21/2003		0.012			
4/16/2003		0.011			
8/15/2003		0.012			
11/12/2003		0.012			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		0.01			
12/15/2004		<0.2			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	<0.2		
6/17/2005				<0.2	
12/1/2005		0.013			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	<0.2	<0.2	<0.2	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		<0.2	
5/20/2009	<0.2	0.0128	<0.2	<0.2	
4/6/2010	<0.2	0.00609	<0.2	<0.2	
4/29/2011	<0.2	<0.2	<0.2	<0.2	<0.2
4/17/2012	<0.2	<0.2	<0.2	<0.2	<0.2
4/4/2013	<0.2	0.0041	<0.2	<0.2	<0.2

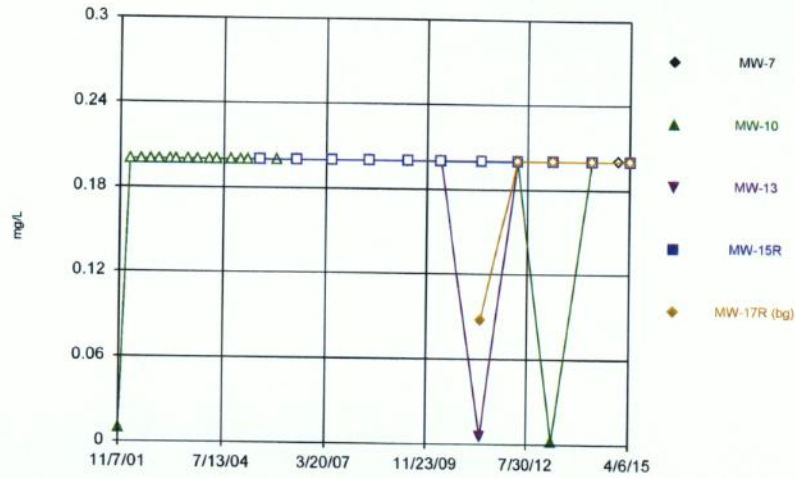
# Time Series

Constituent: Chromium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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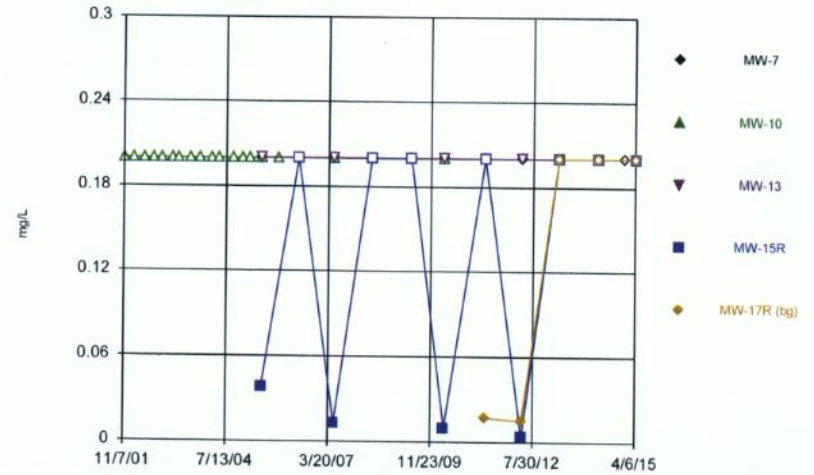
	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/10/2014	<0.2	0.0038	<0.2	<0.2	<0.2
12/16/2014	<0.2				
4/6/2015	<0.2	0.005	<0.2	<0.2	<0.2

Time Series



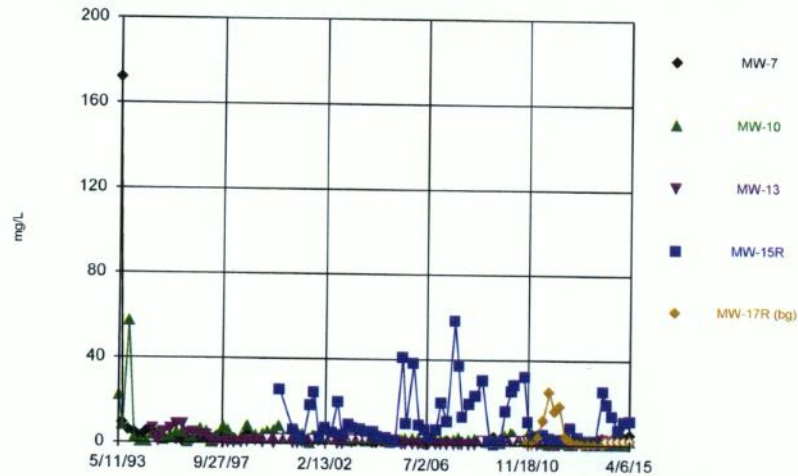
Constituent: Cobalt Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



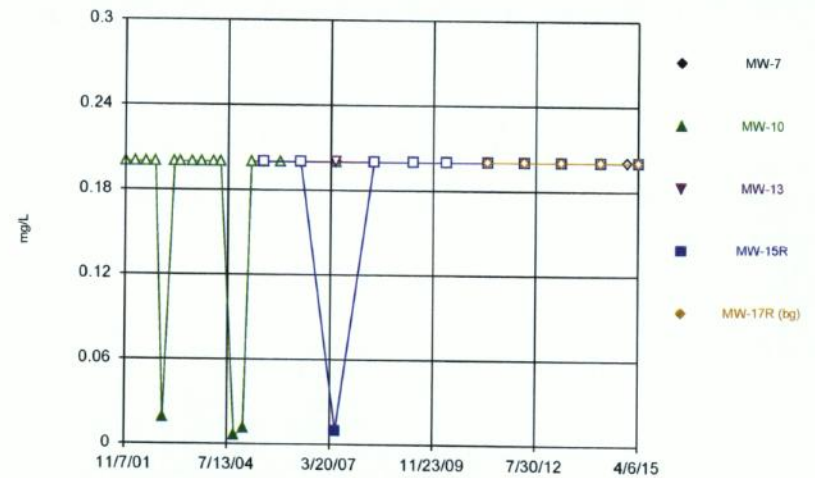
Constituent: Copper Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Iron Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Lead Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		0.01			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		<0.2			
11/7/2002		<0.2			
2/21/2003		<0.2			
4/16/2003		<0.2			
8/15/2003		<0.2			
11/12/2003		<0.2			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		<0.2			
12/15/2004		<0.2			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	<0.2		
6/17/2005				<0.2	
12/1/2005		<0.2			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	<0.2	<0.2	<0.2	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		<0.2	
5/20/2009	<0.2	<0.2	<0.2	<0.2	
4/6/2010	<0.2	<0.2	<0.2	<0.2	
4/29/2011	<0.2	<0.2	0.0051	<0.2	0.087
4/17/2012	<0.2	<0.2	<0.2	<0.2	<0.2
4/4/2013	<0.2	0.0022	<0.2	<0.2	<0.2
4/10/2014	<0.2	<0.2	<0.2	<0.2	<0.2
12/16/2014	<0.2				
4/6/2015	<0.2	<0.2	<0.2	<0.2	<0.2

# Time Series

Constituent: Copper (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.2			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		<0.2			
11/7/2002		<0.2			
2/21/2003		<0.2			
4/16/2003		<0.2			
8/15/2003		<0.2			
11/12/2003		<0.2			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		<0.2			
12/15/2004		<0.2			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	<0.2		
6/17/2005				0.038	
12/1/2005		<0.2			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	<0.2	<0.2	0.013	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		<0.2	
5/20/2009	<0.2	<0.2	<0.2	<0.2	
4/6/2010	<0.2	<0.2	<0.2	0.00993	
4/29/2011	<0.2	<0.2	<0.2	<0.2	0.017
4/17/2012	<0.2	0.00336	<0.2	0.00355	0.0147
4/4/2013	<0.2	<0.2	<0.2	<0.2	<0.2
4/10/2014	<0.2	<0.2	<0.2	<0.2	<0.2
12/16/2014	<0.2				
4/6/2015	<0.2	<0.2	<0.2	<0.2	<0.2

## Time Series

Constituent: Iron (mg/L)    Analysis Run 6/2/2015 12:46 PM    View: Time Series

Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	172	21.8			
7/16/1993	9.2	8.3			
10/11/1993	5.7	56.9			
1/13/1994	4.6	2.06			
4/20/1994	2.6	0.295			
7/13/1994	5.3	0.234			
10/12/1994	5.3	3.51	6.43		
12/23/1994			1.7		
1/23/1995	1.7	4.95	0.561		
4/13/1995	2	1.67	4.89		
8/2/1995	1.7	2.87	6.17		
10/18/1995	1.4	4.8	8.41		
1/18/1996	1.1	4.77	8.59		
4/17/1996	1.6	0.477	4.19		
7/17/1996	1.5	2.09	4.47		
11/7/1996	2.1	6.54	3.75		
1/22/1997	2	5.15	3.77		
4/8/1997	1.9	0.33	0.667		
7/14/1997	3.1	2.92	0.178		
10/22/1997	2	7.29	0.388		
1/7/1998	3.5	5.76	0.339		
4/6/1998	1.8	1.37	0.356		
7/14/1998	1.3	2.61	0.292		
10/20/1998	4.3	7.9	0.56		
3/3/1999	1.4	3.7	1.2		
6/22/1999	3.3	4	0.21		
8/31/1999	1.8	5.5	<2		
11/30/1999	2.5	6.1	0.12		
2/15/2000	2.1	7.9	<2	25.6	
6/27/2000	1.9	3.1	<2		
9/26/2000	1.7	4.8	0.1	6.2	
12/12/2000	1.5	5.4	0.092	3.2	
2/27/2001	2	4.1	0.59	1.5	
6/6/2001	1.7	0.42	0.083	18	
8/15/2001	1.6	3.4	<2	24	
11/7/2001	1.3	4.1	<2	2.8	
2/6/2002	1.3	4	<2	7.3	
5/22/2002	2.9	3	<2	5.3	
8/21/2002	1.3	2.7	0.03	20	
11/7/2002	1	3.1	0.02	4.2	
2/21/2003	1.3	1.3	<2	9	
4/16/2003	0.61	1.6	<2	7.6	
8/14/2003			<2	6.8	
8/15/2003	1.7	2			
11/12/2003	1.3	1.5	<2	6	
3/3/2004	0.94	2	<2	6	
5/4/2004	0.88	1.7	<2	3.4	
9/21/2004	0.85	1.5	<2	3.2	
12/15/2004	1.5	1.6	<2	0.7	
2/22/2005	1.2	1.6	<2	1.5	
6/16/2005	0.79	2.2	0.021		
6/17/2005				41	

# Time Series

Constituent: Iron (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
8/17/2005	0.89	2.3	0.039	10	
11/30/2005	0.62		0.08		
12/1/2005		2.4		38	
3/7/2006				9.2	
3/8/2006		2.3	0.28		
3/9/2006	0.98				
6/5/2006			0.12		
6/6/2006	1.2	1		6.9	
8/10/2006	0.79	2.5	0.23	3	
11/30/2006				7.2	
12/1/2006	0.93	2	0.098		
2/12/2007	1.5			20	
2/13/2007		2.1	0.058		
5/14/2007	1.8	2.1	0.046	11	
9/10/2007	0.62	2.2	0.077	58	
11/11/2007		2.8	0.083		
11/12/2007				37	
11/13/2007	1				
1/15/2008	1.3		0.095	13	
5/6/2008			0.042		
5/7/2008	1.49	1.96		19	
8/5/2008		2.53	0.1	23	
8/6/2008	1.58				
11/19/2008			<2	30.4	
11/20/2008	1.5				
3/23/2009			<2		
3/24/2009	1.39			1.3	
5/20/2009	3.51	1.09	0.071	0.193	
9/9/2009		1.02	<2		
9/10/2009	2.66			1.24	
11/23/2009	2.32	4.25	<2	15.8	
2/23/2010	2.16	5.16	<2	25.2	
4/6/2010	2.1	4.67	<2	28.2	
9/13/2010	1.64	2.66	<2	32.1	
11/17/2010			<2	10.8	
11/18/2010	1.7	4.43			0.585
1/27/2011		5.4	0.13	3.1	
1/28/2011	1.1				0.53
4/29/2011	2.2	1.7	0.079	4	3.4
7/26/2011		0.84	<2	4.5	11.5
7/27/2011	1.5				
11/10/2011	2.2	0.43	0.16	3.2	24.9
1/31/2012	1.19	0.477	0.051		15.7
2/1/2012				2	
4/17/2012	2.05	0.583	0.091	2.33	17.9
7/17/2012	1.78	0.716	<2	2.6	3.58
10/4/2012	1.8	0.276	0.0377	7.93	2.06
1/24/2013	2.02	2.23	0.193	3.44	0.928
4/4/2013	2.14	1.57	0.253	1.86	0.336
7/11/2013	1.36	0.455	0.142	1.89	0.248
10/14/2013	1.97	0.315	0.17	0.133	0.156
2/17/2014	2.89	0.319	2.24	25.2	0.284

# Time Series

Constituent: Iron (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/10/2014	2.33	<2	<2	19.1	<2
7/8/2014	2.77	0.251	0.423	13.9	<2
10/13/2014	3.52	0.284	1.6	6.93	<2
1/21/2015	3.79	0.348	9.74	10.8	<2
4/6/2015	4.49	<2	11.5	11.6	<2

# Time Series

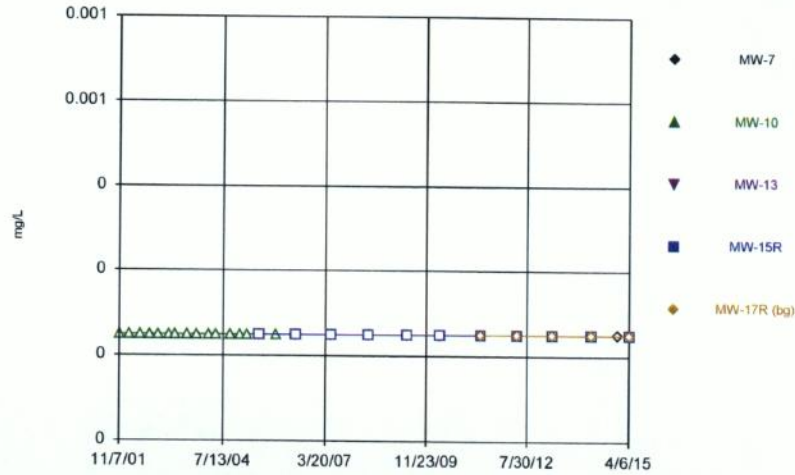
Constituent: Lead (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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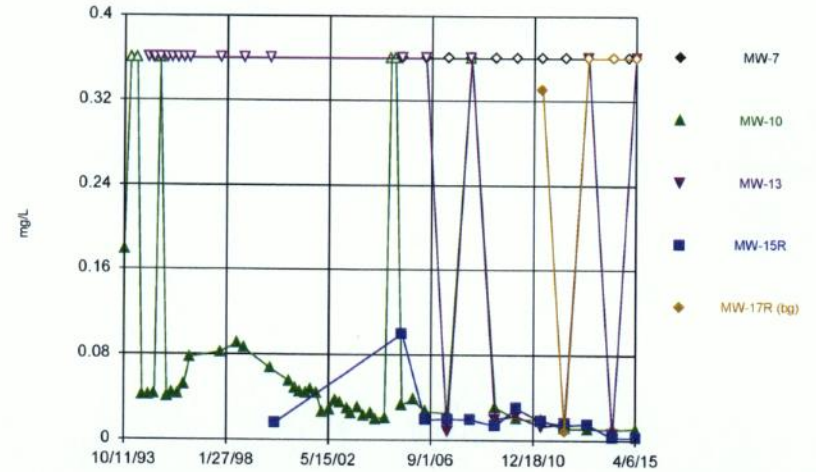
	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.2			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		<0.2			
11/7/2002		0.019			
2/21/2003		<0.2			
4/16/2003		<0.2			
8/15/2003		<0.2			
11/12/2003		<0.2			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		0.006			
12/15/2004		0.011			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	<0.2		
6/17/2005				<0.2	
12/1/2005		<0.2			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	<0.2	<0.2	0.01	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		<0.2	
5/20/2009	<0.2	<0.2	<0.2	<0.2	
4/6/2010	<0.2	<0.2	<0.2	<0.2	
4/29/2011	<0.2	<0.2	<0.2	<0.2	<0.2
4/17/2012	<0.2	<0.2	<0.2	<0.2	<0.2
4/4/2013	<0.2	<0.2	<0.2	<0.2	<0.2
4/10/2014	<0.2	<0.2	<0.2	<0.2	<0.2
12/16/2014	<0.2				
4/6/2015	<0.2	<0.2	<0.2	<0.2	<0.2

Time Series



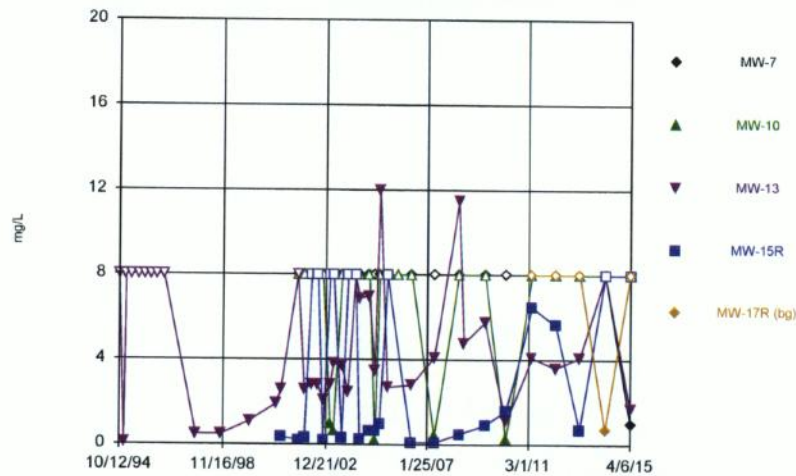
Constituent: Mercury Analysis Run 6/2/2015 12:44 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



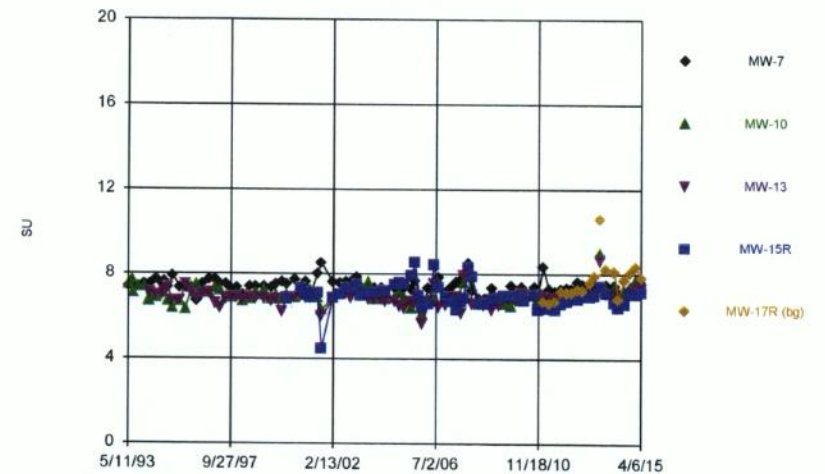
Constituent: Nickel Analysis Run 6/2/2015 12:44 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Nitrate as N Analysis Run 6/2/2015 12:44 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: pH Analysis Run 6/2/2015 12:44 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Mercury (mg/L) Analysis Run 8/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.0002			
2/6/2002		<0.0002			
5/22/2002		<0.0002			
8/21/2002		<0.0002			
11/7/2002		<0.0002			
2/21/2003		<0.0002			
4/16/2003		<0.0002			
8/15/2003		<0.0002			
11/12/2003		<0.0002			
3/3/2004		<0.0002			
5/4/2004		<0.0002			
9/21/2004		<0.0002			
12/15/2004		<0.0002			
2/22/2005		<0.0002			
6/16/2005	<0.0002	<0.0002	<0.0002		
6/17/2005				<0.0002	
12/1/2005		<0.0002			
6/5/2006			<0.0002		
6/6/2006	<0.0002	<0.0002		<0.0002	
5/14/2007	<0.0002	<0.0002	<0.0002	<0.0002	
5/6/2008			<0.0002		
5/7/2008	<0.0002	<0.0002		<0.0002	
5/20/2009	<0.0002	<0.0002	<0.0002	<0.0002	
4/6/2010	<0.0002	<0.0002	<0.0002	<0.0002	
4/29/2011	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/17/2012	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/4/2013	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/10/2014	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
12/16/2014	<0.0002				
4/6/2015	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

## Time Series

Constituent: Nickel (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
10/11/1993		0.179			
1/13/1994		<0.36			
4/20/1994		<0.36			
7/13/1994		0.0419			
10/12/1994		0.0419	<0.36		
12/23/1994			<0.36		
1/23/1995		0.0425	<0.36		
4/13/1995		<0.36	<0.36		
8/2/1995		0.0411	<0.36		
10/18/1995		0.0436	<0.36		
1/18/1996		0.0429	<0.36		
4/17/1996		0.052	<0.36		
7/17/1996		0.0777	<0.36		
10/22/1997		0.0823	<0.36		
7/14/1998		0.0908			
10/20/1998		0.086	<0.36		
11/30/1999		0.067	<0.36		
2/15/2000				0.016	
9/26/2000		0.055			
12/12/2000		0.048			
2/27/2001		0.045			
6/6/2001		0.044			
8/15/2001		0.047			
11/7/2001		0.044			
2/6/2002		0.026			
5/22/2002		0.028			
8/21/2002		0.037			
11/7/2002		0.035			
2/21/2003		0.03			
4/16/2003		0.025			
8/15/2003		0.031			
11/12/2003		0.023			
3/3/2004		0.025			
5/4/2004		0.02			
9/21/2004		0.021			
12/15/2004		<0.36			
2/22/2005		<0.36			
6/16/2005	<0.36	0.033	<0.36		
6/17/2005				0.1	
12/1/2005		0.038			
6/5/2006			<0.36		
6/6/2006	<0.36	0.027		0.019	
5/14/2007	<0.36	0.025	0.0087	0.02	
5/6/2008			<0.36		
5/7/2008	<0.36	<0.36		0.0193	
5/20/2009	<0.36	0.0307	0.0199	0.0139	
4/6/2010	<0.36	0.0201	0.0227	0.0302	
4/29/2011	<0.36	0.019	0.013	0.018	0.33
4/17/2012	<0.36	0.0112	0.0159	0.0144	0.00881
4/4/2013	<0.36	0.0109	<0.36	0.0154	<0.36
4/10/2014	<0.36	0.0103	0.0058	0.0028	<0.36
12/16/2014	<0.36				

# Time Series

Constituent: Nickel (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/6/2015	<0.36	0.0111	<0.36	0.0025	<0.36

# Time Series

Constituent: Nitrate as N (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
10/12/1994			<8		
12/23/1994			0.091		
1/23/1995			<8		
4/13/1995			<8		
8/2/1995			<8		
10/18/1995			<8		
1/18/1996			<8		
4/17/1996			<8		
7/17/1996			<8		
10/22/1997			0.49		
10/20/1998			0.48		
11/30/1999			1.1		
12/12/2000			1.9		
2/27/2001			2.6	0.35	
11/7/2001	<8	<8	<8	0.21	
2/6/2002	<8	<8	2.6	0.29	
5/22/2002	<8	<8	2.8	<8	
8/21/2002	<8	<8	2.8	<8	
11/7/2002	<8	<8	2.1	0.22	
2/21/2003	<8	1	2.8	<8	
4/16/2003	<8	0.65	3.8	<8	
8/14/2003			3.7	0.32	
8/15/2003	<8	<8			
11/12/2003	<8	<8	2.5	<8	
3/3/2004	<8	<8	<8	<8	
5/4/2004	<8	<8	6.9	0.25	
9/21/2004	<8	<8	7	0.63	
12/15/2004	<8	0.19	3.5	0.62	
2/22/2005	<8	<8	12	1	
6/16/2005	<8	<8	2.7		
6/17/2005				<8	
12/1/2005		<8			
6/5/2006			2.8		
6/6/2006	<8	<8		0.1	
5/14/2007	<8	0.4	4.1	0.094	
5/6/2008			11.5		
5/7/2008	<8	<8		0.5	
7/24/2008			4.79		
5/20/2009	<8	<8	5.76	0.91	
4/6/2010	<8	0.27	1.12	1.59	
4/29/2011	<8	<8	4.1	6.5	<8
4/17/2012	<8	<8	3.62	5.64	<8
4/4/2013	<8	<8	4.1	0.71	<8
4/10/2014	<8	<8	<8	<8	0.67
4/6/2015	1	<8	1.7	<8	<8

## Time Series

Constituent: pH (SU) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	7.4	7.5			
7/16/1993	7.5	7.7			
8/4/1993	7.4	7.1			
10/11/1993	7.4	7.4			
1/13/1994	7.5	7.4			
3/29/1994		6.7			
4/20/1994	7.5	6.9	7.1		
7/13/1994	7.7	6.9	7		
10/12/1994	7.5	7.1	7		
12/6/1994	7.6	7.3	7.1		
1/23/1995	7.3	6.7	7.3		
4/13/1995	7.9	6.4	6.7		
8/2/1995	7.3	6.7	6.7		
10/18/1995	7.3	6.3	7.5		
1/18/1996	7.3	7.3	7.1		
4/17/1996	6.7	7.5	6.8		
7/17/1996	7.5	7.1	7		
11/7/1996	7.7	7.1	7.1		
1/22/1997	7.7	7.3	6.6		
4/8/1997	7.5	7.2	6.4		
7/14/1997	7.5	6.9	6.8		
10/22/1997	7.2	6.9	6.9		
1/7/1998	7.3	7	6.9		
4/6/1998	7	6.7	6.7		
7/14/1998	7.4	6.8	6.9		
10/20/1998	7.4	7.1	6.8		
3/3/1999	7.4	7.2	6.8		
6/22/1999	7.3	6.8	6.7		
8/31/1999	7.5	7	6.8		
11/30/1999	7.6	6.8	6.2		
2/15/2000	7.5	7	6.9	6.8	
6/27/2000	7.7	6.9	6.9		
9/26/2000	7.3	7.1	7	7.3	
12/12/2000	7.6	7	6.9	7.1	
2/27/2001	7.1	7.2	6.9	6.9	
6/6/2001	8	6.9	7	7.1	
8/15/2001	8.5	6.3	6	4.5	
2/6/2002	7.6	6.9	6.8	6.9	
5/22/2002	7.54	7.04	7.07	7.06	
8/21/2002	7.6	7.2	7.1	7.3	
11/7/2002	7.6	7.2	6.9	7.3	
2/21/2003	7.8	7.3	7.1	7.5	
4/16/2003	7.3	7.5	7	7	
8/14/2003			6.8	7.1	
8/15/2003	7.2	7.6			
11/12/2003	7.3	6.8	6.8	7.1	
3/3/2004	7.3	6.8	6.8	7.2	
5/4/2004	7.2	6.8	6.7	7.2	
9/21/2004	7.3	6.9	6.7	7.5	
12/15/2004	7.4	7.1	6.5	7.6	
2/22/2005	7.3	6.9	6.4	7.5	
6/16/2005	7.28	6.37	6.69		

# Time Series

Constituent: pH (SU) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
6/17/2005				7.92	
8/17/2005	7.64	6.94	6.63	8.54	
10/12/2005				6.98	
11/30/2005	6.62		5.66		
12/1/2005		6.12		6.41	
3/7/2006				6.6	
3/8/2006		6.78	6.72		
3/9/2006	7.3				
6/5/2006			7.55		
6/6/2006	6.7	6.84		8.46	
8/10/2006	7.85	7.6	6.46	7.37	
11/30/2006				6.92	
12/1/2006	7.12	6.71	6.57		
2/12/2007	7.33			6.72	
2/13/2007		6.94	6.77		
5/14/2007	7.63	6.89	6.92	6.33	
7/23/2007			6.13	6.72	
9/10/2007	7.8	7.59	7.59	6.9	
11/11/2007		8.07	8.18		
11/12/2007				8.31	
11/13/2007	8.49				
1/15/2008	7.19		6.62	7.86	
5/6/2008			6.58		
5/7/2008	6.85	6.65		6.6	
7/24/2008			6.56		
8/5/2008		6.64	6.63	6.58	
8/6/2008	6.8				
11/19/2008			6.32	6.85	
11/20/2008	7.3				
3/23/2009			6.55		
3/24/2009	6.96			6.86	
5/20/2009	6.65	6.6	6.8	7.01	
9/9/2009		6.48	6.97		
9/10/2009	7.44			6.94	
10/21/2009	7.1				
11/23/2009	6.99	6.85	6.75	6.92	
2/23/2010	7.39	6.79	7.1	6.98	
4/6/2010	7.23	6.93	6.97	6.76	
9/13/2010	7.37	7.01	7.02	7.07	
11/17/2010			6.84	6.31	
11/18/2010	7.18	6.83			
1/27/2011		7.07	6.94	6.52	
1/28/2011	8.34				6.71
4/29/2011	7.26	6.78	6.89	6.37	6.6
7/26/2011		6.73	6.86	6.34	6.73
7/27/2011	7.16				
11/10/2011	7.26	6.95	6.91	6.59	7.16
1/31/2012	7.33	6.95	6.87		7.11
2/1/2012				6.71	
4/17/2012	7.29	6.98	6.89	6.91	7.09
7/17/2012	7.58	6.84	6.94	6.84	7.29
10/4/2012	7.47	7	6.98	6.92	7.23

# Time Series

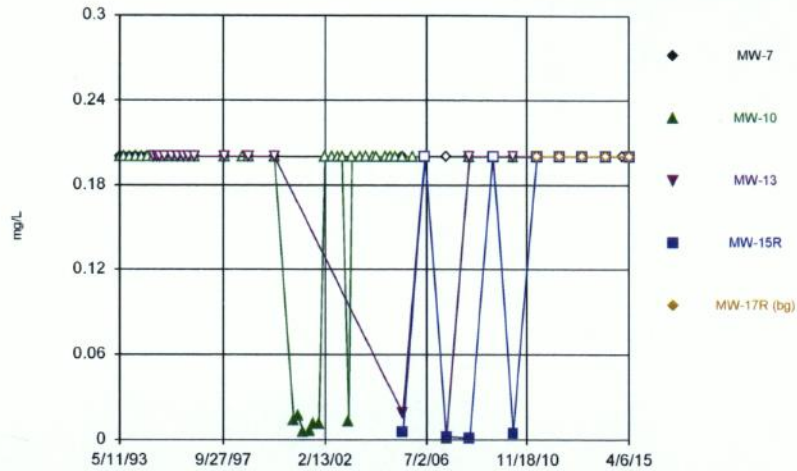
Constituent: pH (SU) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
1/24/2013	7.44	7.03	7.01	6.92	7.56
4/4/2013	7.45	7.14	7.02	7	7.9
7/11/2013	7.46	7.14	7.02	7.46	7.9
10/14/2013	7.52	7.29	7.1	7.13	8.2
2/17/2014	7.41	7.37	6.99	6.66	8.11
4/10/2014	7.08	7	6.69	6.42	6.85
7/8/2014	7.07	7.19	6.71	6.61	7.71
10/13/2014	7.31	7.4	7.14	7.05	8.05
12/16/2014	7.05				
1/21/2015	7.44	7.74	7.4	7.06	8.34
4/6/2015	7.28	7.77	7.32	7.16	7.82

Time Series



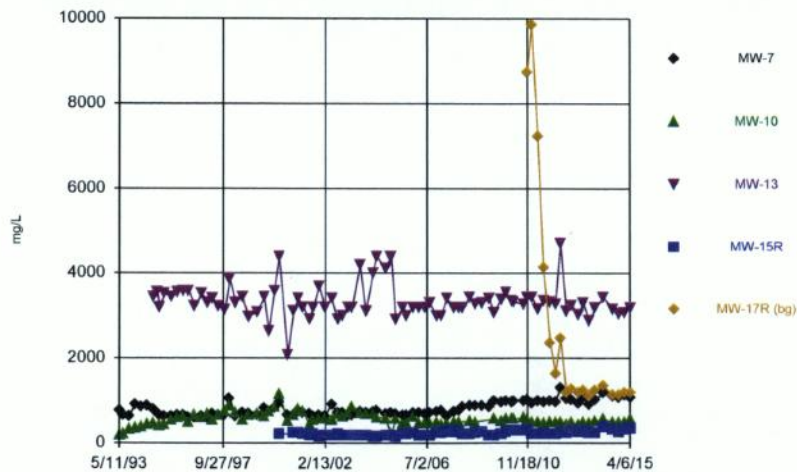
Constituent: Selenium Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



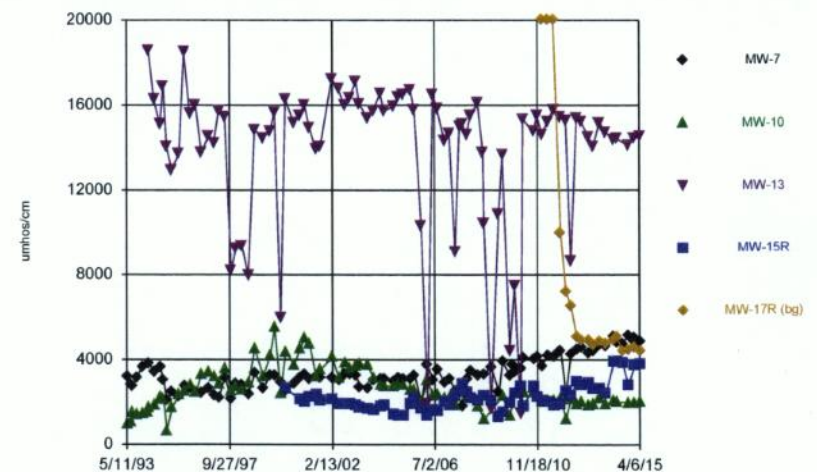
Constituent: Silver Analysis Run 6/2/2015 12:44 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Sodium Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Specific Conductance Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Selenium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	<0.2	<0.2			
7/16/1993	<0.2	<0.2			
10/11/1993	<0.2	<0.2			
1/13/1994	<0.2	<0.2			
4/20/1994	<0.2	<0.2			
7/13/1994	<0.2	<0.2			
10/12/1994	<0.2	<0.2	<0.2		
12/23/1994			<0.2		
1/23/1995	<0.2	<0.2	<0.2		
4/13/1995	<0.2	<0.2	<0.2		
8/2/1995	<0.2	<0.2	<0.2		
10/18/1995	<0.2	<0.2	<0.2		
1/18/1996	<0.2	<0.2	<0.2		
4/17/1996	<0.2	<0.2	<0.2		
7/17/1996	<0.2	<0.2	<0.2		
10/22/1997	<0.2	<0.2	<0.2		
7/14/1998		<0.2			
10/20/1998	<0.2	<0.2	<0.2		
11/30/1999	<0.2	<0.2	<0.2		
9/26/2000		0.014			
12/12/2000		0.017			
2/27/2001		0.0056			
6/6/2001		0.0061			
8/15/2001		0.011			
11/7/2001		0.011			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		<0.2			
11/7/2002		<0.2			
2/21/2003		0.013			
4/16/2003		<0.2			
8/15/2003		<0.2			
11/12/2003		<0.2			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		<0.2			
12/15/2004		<0.2			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	0.019		
6/17/2005				0.0054	
12/1/2005		<0.2			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	0.001	0.0021	0.0024	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		0.00121	
5/20/2009	<0.2	<0.2	<0.2	<0.2	
4/6/2010	<0.2	<0.2	<0.2	0.00428	
4/29/2011	<0.2	<0.2	<0.2	<0.2	<0.2
4/17/2012	<0.2	<0.2	<0.2	<0.2	<0.2
4/4/2013	<0.2	<0.2	<0.2	<0.2	<0.2
4/10/2014	<0.2	<0.2	<0.2	<0.2	<0.2

# Time Series

Constituent: Selenium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
12/16/2014	<0.2				
4/6/2015	<0.2	<0.2	<0.2	<0.2	<0.2

# Time Series

Constituent: Silver (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.2			
2/6/2002		<0.2			
5/22/2002		<0.2			
8/21/2002		<0.2			
11/7/2002		<0.2			
2/21/2003		<0.2			
4/16/2003		<0.2			
8/15/2003		<0.2			
11/12/2003		<0.2			
3/3/2004		<0.2			
5/4/2004		<0.2			
9/21/2004		<0.2			
12/15/2004		<0.2			
2/22/2005		<0.2			
6/16/2005	<0.2	<0.2	<0.2		
6/17/2005				<0.2	
12/1/2005		<0.2			
6/5/2006			<0.2		
6/6/2006	<0.2	<0.2		<0.2	
5/14/2007	<0.2	<0.2	<0.2	<0.2	
5/6/2008			<0.2		
5/7/2008	<0.2	<0.2		<0.2	
5/20/2009	<0.2	<0.2	<0.2	<0.2	
4/6/2010	<0.2	<0.2	<0.2	<0.2	
4/29/2011	<0.2	<0.2	<0.2	<0.2	<0.2
4/17/2012	<0.2	<0.2	<0.2	<0.2	<0.2
4/4/2013	<0.2	<0.2	<0.2	<0.2	<0.2
4/10/2014	<0.2	<0.2	<0.2	<0.2	<0.2
12/16/2014	<0.2				
4/6/2015	<0.2	<0.2	<0.2	<0.2	<0.2

# Time Series

Constituent: Sodium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	773	194			
7/16/1993	659	216			
10/11/1993	622	327			
1/13/1994	895	342			
4/20/1994	844	363			
7/13/1994	872	420			
10/12/1994	783	458	3450		
12/23/1994			3550		
1/23/1995	651	407	3200		
4/13/1995	624	444	3510		
8/2/1995	619	545	3440		
10/18/1995	652	585	3560		
1/18/1996	668	623	3580		
4/17/1996	594	477	3580		
7/17/1996	596	643	3230		
11/7/1996	637	606	3510		
1/22/1997	596	686	3310		
4/8/1997	672	557	3420		
7/14/1997	660	658	3230		
10/22/1997	653	743	3120		
1/7/1998	1050	882	3860		
4/6/1998	620	702	3310		
7/14/1998	701	550	3440		
10/20/1998	683	666	2980		
3/3/1999	649	670	3090		
6/22/1999	820	639	3430		
8/31/1999	726	732	2630		
11/30/1999	808	839	3580		
2/15/2000	956	1160	4400	202	
6/27/2000	664	521	2080		
9/26/2000	650	650	3100	230	
12/12/2000	760	790	3400	230	
2/27/2001	700	750	3200	200	
6/6/2001	670	430	2900	190	
8/15/2001	640	540	3200	200	
11/7/2001	660	580	3700	160	
2/6/2002	630	580	3200	170	
5/22/2002	910	550	3400	190	
8/21/2002	710	670	2900	200	
11/7/2002	700	620	3000	170	
2/21/2003	650	720	3200	170	
4/16/2003	660	840	3200	180	
8/14/2003			4200	170	
8/15/2003	750	710			
11/12/2003	700	680	3100	180	
3/3/2004	730	670	4000	160	
5/4/2004	770	610	4400	160	
9/21/2004	680	580	4100	170	
12/15/2004	710	210	4400	180	
2/22/2005	690	560	2900	160	
6/16/2005	660	460	3200		
6/17/2005				200	

# Time Series

Constituent: Sodium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
8/17/2005	660	490	3000	210	
11/30/2005	700		3200		
12/1/2005		640		240	
3/7/2006				190	
3/8/2006		450	3200		
3/9/2006	710				
6/5/2006			3200		
6/6/2006	690	450		180	
8/10/2006	700	460	3300	190	
11/30/2006				240	
12/1/2006	750	480	3000		
2/12/2007	760			230	
2/13/2007		440	3000		
5/14/2007	640	450	3400	260	
7/23/2007				280	
9/10/2007	730	480	3200	270	
11/11/2007		500	3200		
11/12/2007				270	
11/13/2007	760				
1/15/2008	840		3200	210	
5/6/2008			3440		
5/7/2008	875	513		202	
8/5/2008		498	3280	245	
8/6/2008	868				
11/19/2008			3310	251	
11/20/2008	879				
3/23/2009			3400		
3/24/2009	850			179	
5/20/2009	978	566	3070	193	
9/9/2009		525	3390		
9/10/2009	966			196	
11/23/2009	994	566	3550	264	
2/23/2010	960	567	3360	293	
4/6/2010	976	568	3340	297	
9/13/2010	1000	595	3270	304	
11/17/2010			3440	295	
11/18/2010	1010	537			8740
1/27/2011		500	3440	210	
1/28/2011	930				9850
4/29/2011	1000	491	3160	219	7240
7/26/2011		467	3350	202	4140
7/27/2011	952				
11/10/2011	985	487	3320	206	2340
1/31/2012	964	494	3270		1640
2/1/2012				218	
4/17/2012	1290	486	4720	235	2470
7/17/2012	1050	429	3100	238	1180
10/4/2012	1030	476	3240	280	1260
1/24/2013	936	442	3030	270	1170
4/4/2013	1060	495	3310	280	1250
7/11/2013	915	454	2870	229	1110
10/14/2013	1020	506	3180	234	1250

# Time Series

Constituent: Sodium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
2/17/2014	1170	567	3430	385	1340
7/8/2014	1100	487	3170	320	1140
10/13/2014	1080	485	3050	253	1120
1/21/2015	1120	489	3080	321	1190
4/6/2015	1080	562	3200	344	1170

# Time Series

Constituent: Specific Conductance (umhos/cm) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	3190	966			
7/16/1993	2830	1080			
8/4/1993	2740	1510			
10/11/1993	3160	1400			
1/13/1994	3670	1450			
3/29/1994		1532			
4/20/1994	3840	1730	18600		
7/13/1994	3440	1870	16300		
10/12/1994	3640	2280	15100		
12/6/1994	3050	2130	16900		
1/23/1995	2080	665	14060		
4/13/1995	2470	1745	12980		
8/2/1995	2260	2340	13730		
10/18/1995	2750	2560	18530		
1/18/1996	2630	2820	15620		
4/17/1996	2470	2480	16030		
7/17/1996	2420	3340	13780		
11/7/1996	2670	3400	14580		
1/22/1997	2310	3210	14250		
4/8/1997	2200	2870	15720		
7/14/1997	3170	3580	15450		
10/22/1997	2170	2530	8200		
1/7/1998	2890	2750	9290		
4/6/1998	2840	2610	9410		
7/14/1998	2370	2920	8020		
10/20/1998	3350	4530	14860		
3/3/1999	2650	3220	14460		
6/22/1999	3260	4220	14780		
8/31/1999	3250	5520	15690		
11/30/1999	2950	2430	5980		
2/15/2000	2520	4400	16290	2650	
6/27/2000	2860	3770	15170		
9/26/2000	3150	4530	15530	2140	
12/12/2000	3340	5060	16040	2060	
2/27/2001	3070	4750	14970	2230	
6/6/2001	3180	3210	13930	2350	
8/15/2001	3160	3540	14090	2070	
2/6/2002	3170	4125	17240	2160	
5/22/2002	3020	3140	16770	1907	
8/21/2002	3330	3890	16010	1941	
11/7/2002	3330	3590	16340	1940	
2/21/2003	3240	3690	17110	1869	
4/16/2003	2720	3810	16100	1742	
8/14/2003			15380	1710	
8/15/2003	2670	3740			
11/12/2003	3040	3150	15760	1652	
3/3/2004	3110	2820	16550	1783	
5/4/2004	3100	2750	15730	1840	
9/21/2004	2990	2770	15940	1412	
12/15/2004	3120	2850	16380	1384	
2/22/2005	3080	2820	16500	1370	
6/16/2005	3114	2584	16760		

# Time Series

Constituent: Specific Conductance (umhos/cm) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
6/17/2005				1907	
8/17/2005	3261	2601	15770	2184	
11/30/2005	2014		10325		
12/1/2005		2025		1672	
3/7/2006				1390	
3/8/2006		3010	1940		
3/9/2006	3750				
6/5/2006			16545		
6/6/2006	3034	2330		1616	
8/10/2006	3523	2393	15837	1575	
11/30/2006				2011	
12/1/2006	2936	2197	14336		
2/12/2007	3103			1843	
2/13/2007		2216	14681		
5/14/2007	2524	1872	9087	2320	
7/23/2007			15010	2531	
9/10/2007	1794	2519	15129	2890	
11/11/2007		2311	14601		
11/12/2007				2496	
11/13/2007	3084				
1/15/2008	3465		15516	2213	
5/6/2008			16110		
5/7/2008	3273	1808		2101	
7/24/2008			13792		
8/5/2008		1209	10432	2298	
8/6/2008	3301				
11/19/2008			1699	2070	
11/20/2008	3660				
3/23/2009			10899		
3/24/2009	2488			1310	
5/20/2009	3919	2299	13669	1536	
9/9/2009		1347	4449		
9/10/2009	3274			1954	
10/21/2009	3768				
11/23/2009	3413	2396	7502	2429	
2/23/2010	3580	2480	1455	2760	
4/6/2010	4090	2500	15340	1820	
9/13/2010	4040	2480	14780	2730	
11/17/2010			15490	2250	
11/18/2010	4160	2430			
1/27/2011		2020	14620	2100	
1/28/2011	3730				20000
4/29/2011	4230	2090	15250	2060	20000
7/26/2011		2090	15790	1870	20000
7/27/2011	4140				
11/10/2011	4430	2150	15460	1930	9980
1/31/2012	2390	1220	15290		7210
2/1/2012				2510	
4/17/2012	4240	2140	8640	2310	6550
7/17/2012	4510	1930	15410	2970	5070
10/4/2012	4600	2010	15210	2840	4940
1/24/2013	4290	1840	14530	2920	4910

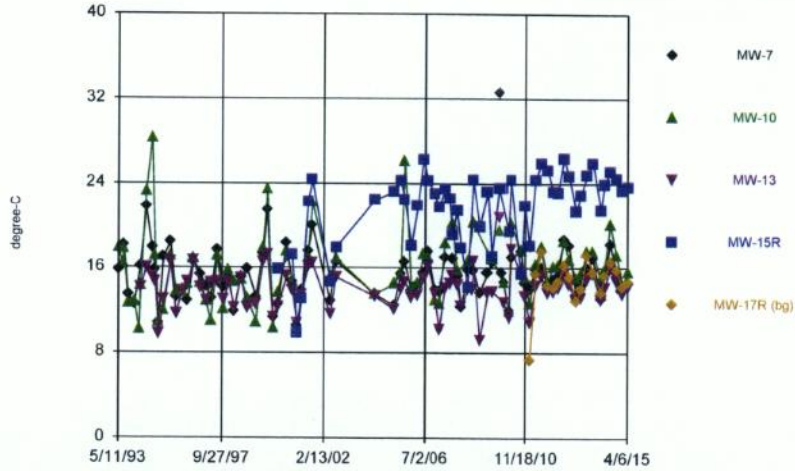
## Time Series

Constituent: Specific Conductance (umhos/cm) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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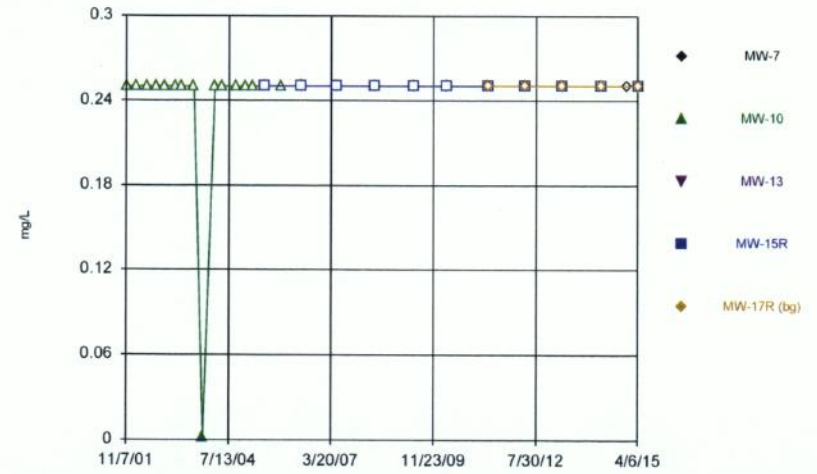
	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
4/4/2013	4430	1930	14040	2620	4710
7/11/2013	4729	2210	15180	2625	4870
10/14/2013	4661	1925	14760	2446	4753
2/17/2014	5097	2094	14400	3912	4930
4/10/2014	4826	2023	14430	3908	5071
7/8/2014	4750			3871	4440
10/13/2014	5155	1996	14110	2800	4492
12/16/2014	4953				
1/21/2015	5057	1976	14430	3763	4616
4/6/2015	4900	2044	14560	3839	4445

### Time Series



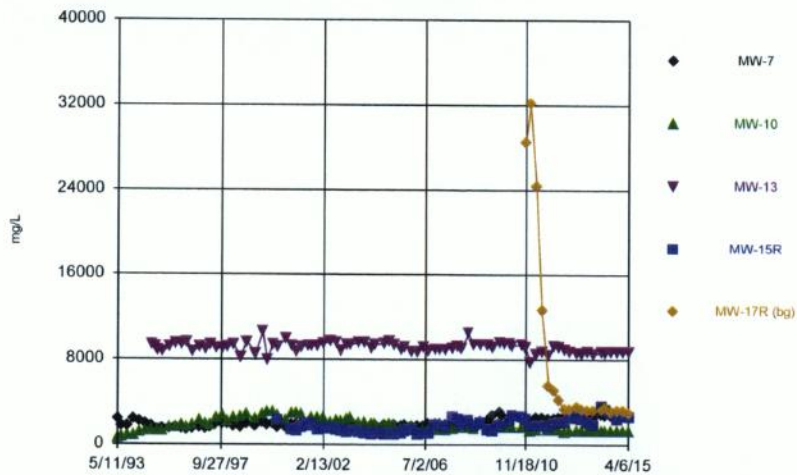
Constituent: Temperature Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

### Time Series



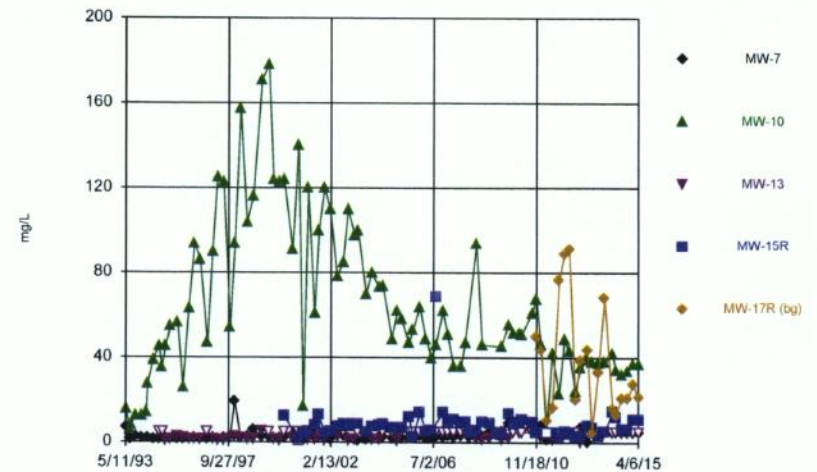
Constituent: Thallium Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

### Time Series



Constituent: Total Dissolved Solids Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

### Time Series



Constituent: Total Organic Carbon Analysis Run 6/2/2015 12:45 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

# Time Series

Constituent: Temperature (degree-C)    Analysis Run 6/2/2015 12:46 PM    View: Time Series  
 Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	15.8	17.9			
7/16/1993	16.1	16.3			
8/4/1993	18.1	17.8			
10/11/1993	13.4	12.6			
1/13/1994	12.5	12.8			
3/29/1994		10.2			
4/20/1994	16.1	14.3	14.1		
7/13/1994	21.8	23.2	16		
10/12/1994	17.9	28.3	15.1		
12/6/1994	15.8	17.1	14.6		
1/23/1995	10.7	10.9	9.8		
4/13/1995	17	12	13		
8/2/1995	18.4	17.1	16.5		
10/18/1995	13.2	13.8	11.6		
1/18/1996	13.9	13.6	13.8		
4/17/1996	12.9	14.4	14.6		
7/17/1996	16.6	16.9	16.7		
11/7/1996	15.3	14.5	14.1		
1/22/1997	14.2	12.9	12.9		
4/8/1997	13.1	11	14.5		
7/14/1997	17.7	17.1	14.7		
10/22/1997	14.1	12.1	13		
1/7/1998	15	15.8	14.5		
4/6/1998	11.9	14.6	12.2		
7/14/1998	15.1	14.9	15		
10/20/1998	15.9	13.1	12.2		
3/3/1999	13.2	10.9	12.5		
6/22/1999	17.3	17.9	16.5		
8/31/1999	21.5	23.4	17.2		
11/30/1999	11.3	10.3	11.3		
2/15/2000	12.5	13.7	12.3	15.9	
6/27/2000	18.3	17.6	15.2		
9/26/2000	14.6	14.7	13.9	17.2	
12/12/2000	10.5	10.4	10.8	9.9	
2/27/2001	13.9	13.5	13.4	13.1	
6/6/2001	17.5	17	16.1	22.2	
8/15/2001	20	22.2	16.4	24.3	
5/22/2002	12.9	15.2	11.6	14.7	
8/21/2002	16.6	16.9	15.1	17.9	
5/4/2004	13.5	13.5	13.3	22.4	
2/22/2005	12.4	14.5	12.1	23.2	
6/16/2005	15.46	15.47	13.94		
6/17/2005				24.18	
8/17/2005	16.52	26.1	14.7	22.48	
11/30/2005	13.91		13.25		
12/1/2005		14.09		18.11	
3/7/2006				21.9	
3/8/2006		14.5	13.4		
3/9/2006	14.4				
6/5/2006			15.02		
6/6/2006	15.49	17.3		26.28	
8/10/2006	17.5	17	16.21	24.26	

# Time Series

Constituent: Temperature (degree-C) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/30/2006				23.01	
12/1/2006	14.03	12.94	13.5		
2/12/2007	13.76			21.78	
2/13/2007		12.61	10.25		
5/14/2007	17.04	18.37	14.15	23.4	
7/23/2007			14.49	22.54	
9/10/2007	16.9	20.2	15.3	19.1	
11/11/2007		15.73	14.39		
11/12/2007				21.47	
11/13/2007	15.26				
1/15/2008	12.32		12.38	17.87	
5/6/2008			14		
5/7/2008	15.8	16.7		14.2	
7/24/2008			13.93		
8/5/2008		20.31	16.63	24.32	
8/6/2008	15.76				
11/19/2008			9.2	19.9	
11/20/2008	13.7				
3/23/2009			13.64		
3/24/2009	15.5			23.2	
5/20/2009	16.6	16.86	13.79	17.1	
9/9/2009					
9/10/2009				23.6	
10/21/2009	15.56				
11/23/2009	14.6	14.7	12.8		
2/23/2010	12	12	11.3	19.4	
4/6/2010	17	20.2	17.8	24.4	
9/13/2010	17.6	17.7	15.5	15.4	
11/17/2010			13.3	21.9	
11/18/2010	14.5	15.1			
1/27/2011		12.6	10.9	18.1	
1/28/2011	14				7.3
4/29/2011	15.9	16.3	14.3	24.4	15.4
7/26/2011		18	15.2	25.9	17.5
7/27/2011	16				
11/10/2011	14.4	14.8	13.7	25.2	14.3
1/31/2012	14.9	16.1	13.8		14.1
2/1/2012				23.2	
4/17/2012	15.2	16.2	14.1	23.1	14.7
7/17/2012	18.7	18.5	15.4	26.4	16.2
10/4/2012	18.1	16.8	14.4	24.7	15.1
1/24/2013	13.4	15	12.9	21.3	12.9
4/4/2013	14.4	15.4	13.2	22.9	14
7/11/2013	15.98	17.53	14.9	24.79	17.24
10/14/2013	16.85	17.57	15.38	25.93	15.52
2/17/2014	13.08	14.9	12.98	21.47	13.66
4/10/2014	15.3	15.8	14.08	23.95	15.35
7/8/2014	18.27	20.13	16.03	25.11	16.51
10/13/2014	15.59	17.26	14.71	24.42	15.74
12/16/2014	13.85				
1/21/2015	14.15	14.39	13.51	23.39	14.25
4/6/2015	14.5	15.61	14.16	23.7	14.68

## Time Series

Constituent: Thallium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		<0.25			
2/6/2002		<0.25			
5/22/2002		<0.25			
8/21/2002		<0.25			
11/7/2002		<0.25			
2/21/2003		<0.25			
4/16/2003		<0.25			
8/15/2003		<0.25			
11/12/2003		0.0022			
3/3/2004		<0.25			
5/4/2004		<0.25			
9/21/2004		<0.25			
12/15/2004		<0.25			
2/22/2005		<0.25			
6/16/2005	<0.25	<0.25	<0.25		
6/17/2005				<0.25	
12/1/2005		<0.25			
6/5/2006			<0.25		
6/6/2006	<0.25	<0.25		<0.25	
5/14/2007	<0.25	<0.25	<0.25	<0.25	
5/6/2008			<0.25		
5/7/2008	<0.25	<0.25		<0.25	
5/20/2009	<0.25	<0.25	<0.25	<0.25	
4/6/2010	<0.25	<0.25	<0.25	<0.25	
4/29/2011	<0.25	<0.25	<0.25	<0.25	<0.25
4/17/2012	<0.25	<0.25	<0.25	<0.25	<0.25
4/4/2013	<0.25	<0.25	<0.25	<0.25	<0.25
4/10/2014	<0.25	<0.25	<0.25	<0.25	<0.25
12/16/2014	<0.25				
4/6/2015	<0.25	<0.25	<0.25	<0.25	<0.25

## Time Series

Constituent: Total Dissolved Solids (mg/L)    Analysis Run 6/2/2015 12:46 PM    View: Time Series  
 Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	2400	661			
7/16/1993	1750	746			
10/11/1993	1680	867			
1/13/1994	2370	890			
4/20/1994	2120	1140			
7/13/1994	1950	1260			
10/12/1994	1750	1440	9400		
12/23/1994			9190		
1/23/1995	1370	1260	8880		
4/13/1995	1480	1280	8740		
8/2/1995	1490	1640	9180		
10/18/1995	1620	1650	9540		
1/18/1996	1550	1860	9420		
4/17/1996	1410	1640	9640		
7/17/1996	1470	1840	8720		
11/7/1996	1560	2250	9230		
1/22/1997	1480	2000	8950		
4/8/1997	1570	1790	9380		
7/14/1997	1980	2540	9060		
10/22/1997	1930	2700	9080		
1/7/1998	1930	2180	9150		
4/6/1998	1720	2550	9390		
7/14/1998	1630	2630	8170		
10/20/1998	1940	2810	9670		
3/3/1999	1710	2390	8550		
6/22/1999	2100	2820	10600		
8/31/1999	1820	3100	7990		
11/30/1999	1960	3090	9450		
2/15/2000	1660	2700	9200	2290	
6/27/2000	1650	2260	9950		
9/26/2000	1800	3000	9300	1400	
12/12/2000	1800	2900	8800	1300	
2/27/2001	1800	2800	9200	1600	
6/6/2001	1900	2100	9300	2000	
8/15/2001	1800	2500	9300	1700	
11/7/2001	1800	2500	9300	1400	
2/6/2002	1800	2500	9500	1500	
5/22/2002	1800	2100	9700	1500	
8/21/2002	1900	2300	9600	1400	
11/7/2002	1700	2200	8900	1300	
2/21/2003	1700	2400	9400	1200	
4/16/2003	1800	2500	9400	1300	
8/14/2003			9600	1200	
8/15/2003	1700	2100			
11/12/2003	1800	2100	9600	1100	
3/3/2004	1800	2000	9100	1000	
5/4/2004	1800	2000	9400	1100	
9/21/2004	1800	1800	9500	960	
12/15/2004	1700	1900	9700	930	
2/22/2005	1800	1800	9400	910	
6/16/2005	1700	1500	9000		
6/17/2005				1100	

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
8/17/2005	1800	1600	9200	1300	
11/30/2005	1700		8800		
12/1/2005		1700		1400	
3/7/2006				1000	
3/8/2006		1400	8800		
3/9/2006	1700				
6/5/2006			9200		
6/6/2006	1700	1400		1100	
8/10/2006	1900	1400	8900	1100	
11/30/2006				1800	
12/1/2006	1900	1500	9000		
2/12/2007	1900			1700	
2/13/2007		1400	9000		
5/14/2007	1800	1400	9000	1600	
9/10/2007	1900	1500	9100		
11/11/2007		1600	9300		
11/12/2007				2400	
11/13/2007	2000				
1/15/2008	2100		9100	1800	
5/6/2008			10500		
5/7/2008	2010	1560		2230	
8/5/2008		1490	9440	1710	
8/6/2008	1870				
11/19/2008			9430	2010	
11/20/2008	2210				
3/23/2009			9380		
3/24/2009	2120			1340	
5/20/2009		1640	9220	1320	
9/9/2009		1610	9630		
9/10/2009				1700	
10/21/2009					
11/23/2009	2540	1580	9530	2020	
2/23/2010	2320	1610	9510	2260	
4/6/2010	2520	1610	9340	2680	
9/13/2010	2480	1580	9410	2630	
11/17/2010			9240	2380	
11/18/2010	2430	1560			28500
1/27/2011		1320	7720	1710	
1/28/2011	2150				32100
4/29/2011	2520	1350	8550	1690	24400
7/26/2011		1880	8700	1690	12600
7/27/2011	2530				
11/10/2011	2400	1360	8420	1620	5480
1/31/2012	2420	1430	9340		5030
2/1/2012				1940	
4/17/2012	2550	1370	9192	2010	4180
7/17/2012	2580	1220	8960	2040	3260
10/4/2012	2570	1250	8790	2610	3300
1/24/2013	2480	1320	8610	2460	3460
4/4/2013	2560	1290	8560	2360	3250
7/11/2013	2540	1330	8730	2050	3150
10/14/2013	2540	1260	8520	1870	3200

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
2/17/2014	2830	1330	8730	3620	3330
4/10/2014	2750	1290	8650	3270	3520
7/8/2014	2770	1310	8720	2910	3040
10/13/2014	2950	1290	8720	2440	3140
1/21/2015	2930	1290	8710	2700	3150
4/6/2015	2860	1290	8750	2660	2950

## Time Series

Constituent: Total Organic Carbon (mg/L)    Analysis Run 6/2/2015 12:46 PM    View: Time Series  
 Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	7.1	15.9			
7/16/1993	1.5	6			
8/4/1993	1.4	8.1			
10/11/1993	2.3	12.5			
1/13/1994	1.7	12.8			
3/29/1994		14.1			
4/20/1994	1.9	27.5			
7/13/1994	1.4	38.6			
10/12/1994	1.5	45.6	<5		
12/6/1994	1.9	35.4			
12/23/1994			<5		
1/23/1995	2.1	45.3	1.1		
4/13/1995	1.3	54.6	1.5		
8/2/1995	1.4	56.4	2.5		
10/18/1995	1.6	25.9	1.9		
1/18/1996	1.4	63.4	1.5		
4/17/1996	1.7	94	1.6		
7/17/1996	1.6	86	1.6		
11/7/1996	1.4	46.8	<5		
1/22/1997	2.2	90	1.5		
4/8/1997	1.5	125	1		
7/14/1997	2.1	123	1		
10/22/1997	2.6	54.3	1.3		
1/7/1998	19.4	93.9	2.3		
4/6/1998	1.9	157.5	1.9		
7/14/1998	2.3	104	1.6		
10/20/1998	5.7	116	1.4		
3/3/1999	2.35	171	5.3		
6/22/1999	2.5	178	<5		
8/31/1999	2	124	1.5		
11/30/1999	1.9	123	1.1		
2/15/2000	1.9	124	<5	12.7	
6/27/2000	3.2	90.9	1.9		
9/26/2000	2	140	<5	1	
12/12/2000	1	17	<5	4.1	
2/27/2001	1.9	120	1.4	5.1	
6/6/2001	3.6	61	1.3	8.2	
8/15/2001	2.7	100	2.1	13	
11/7/2001	1.9	120	1	4.4	
2/6/2002	1.5	110	<5	5.2	
5/22/2002	2.8	78	2.3	7.4	
8/21/2002	3.1	85	<5	8.4	
11/7/2002	1.8	110	1	7.4	
2/21/2003	1.5	98	1.4	8.5	
4/16/2003	1.1	100	<5	8.8	
8/14/2003			<5	4.9	
8/15/2003	1.2	70			
11/12/2003	2	80	1.2	7.5	
3/3/2004	2.3	73	1.2	8.1	
5/4/2004	2.3	74	<5	8.9	
9/21/2004	2.1	49	<5	7.1	
12/15/2004	2.2	62	1.1	6.8	

# Time Series

Constituent: Total Organic Carbon (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
2/22/2005	1.8	58	<5	7.1	
6/16/2005	2.2	47	<5		
6/17/2005				12	
8/17/2005	2.1	53	<5	2.3	
11/30/2005	2.8		<5		
12/1/2005		64		14	
3/7/2006				5.4	
3/8/2006		49	<5		
3/9/2006	2.2				
6/5/2006			<5		
6/6/2006	1.8	40		6	
8/10/2006	2.6	46	<5		
11/30/2006				14	
12/1/2006	2.7	62	<5		
2/12/2007	2.8			9.1	
2/13/2007		51	<5		
5/14/2007	2.4	36	<5	11	
9/10/2007	3	36	<5	9.5	
11/11/2007		47	<5		
11/12/2007				10	
11/13/2007	4				
1/15/2008	2.4		<5	4.8	
5/6/2008			1.81		
5/7/2008	2.66	93.6		5.94	
8/5/2008		46	1.55	9.72	
8/6/2008	2.79				
11/19/2008			2.17	9.04	
11/20/2008	4.67				
3/23/2009			<5		
3/24/2009	3.41			3.93	
5/20/2009	5.18	45.3	1.26	4.41	
9/9/2009		55.2	2.01		
9/10/2009	9.03			13.8	
11/23/2009	5.96	51.6	<5	8.75	
2/23/2010	6.52	51.7	<5	9.78	
4/6/2010	5.69	50.9	<5	10.9	
9/13/2010	6.78	61	<5	9.58	
11/17/2010			<5	4.68	
11/18/2010	6.64	67.9			49.8
1/27/2011		46.6	2.6	4.5	
1/28/2011	8.2				44
4/29/2011	1.2	5.9	<5	<5	10.5
7/26/2011		42.1	1.5	4.6	16.3
7/27/2011	<5				
11/10/2011	4.1	23	<5	2	76.4
1/31/2012	4.33	48.5	<5		88.7
2/1/2012				5.16	
4/17/2012	4.87	43	<5	4.24	91.3
7/17/2012	<5	24.4	<5	2	20.3
10/4/2012	6.8	35.2	0.072	3.2	38.9
1/24/2013	0.51	39.4	<5	8	43.5
4/4/2013	<5	38.3	<5	7.1	5

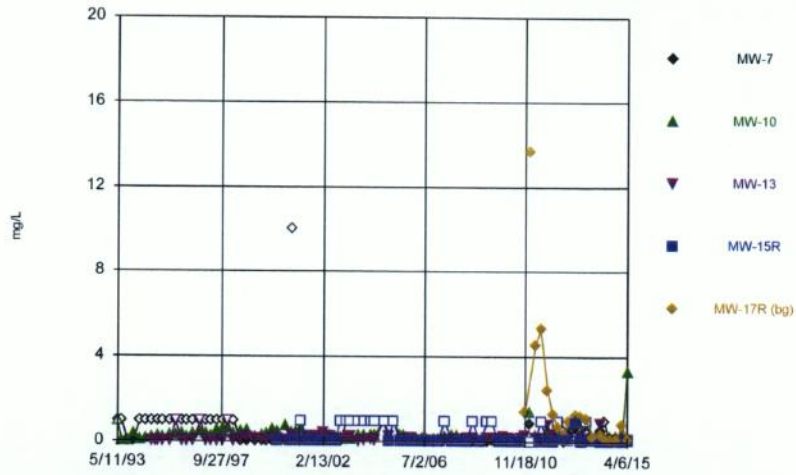
# Time Series

Constituent: Total Organic Carbon (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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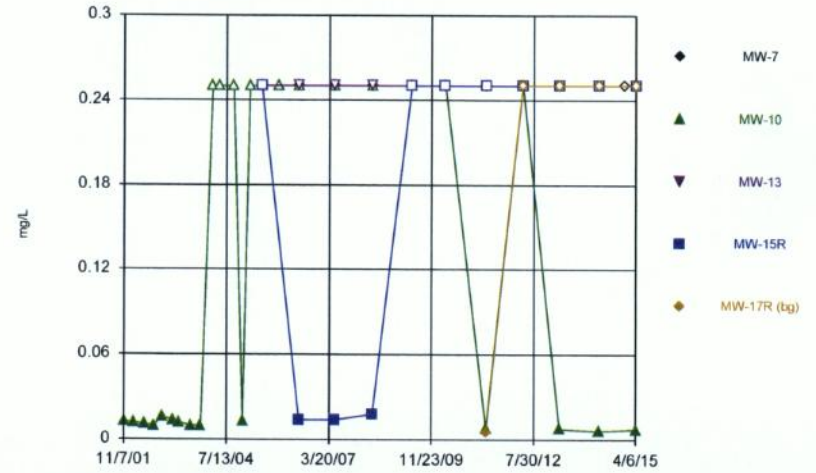
	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
7/11/2013	<5	37.6	<5	3.1	33
10/14/2013	<5	37.9	<5	5.2	68.3
2/17/2014	<5	41.9	<5	14.5	16.1
4/10/2014	<5	34.4	<5	11.7	12.9
7/8/2014	<5	32.2	<5	6.3	20.8
10/13/2014	<5	33.9	<5	6.5	20.7
1/21/2015	<5	36.8	<5	11	27.8
4/6/2015	<5	37.1	<5	10.9	21.2

Time Series



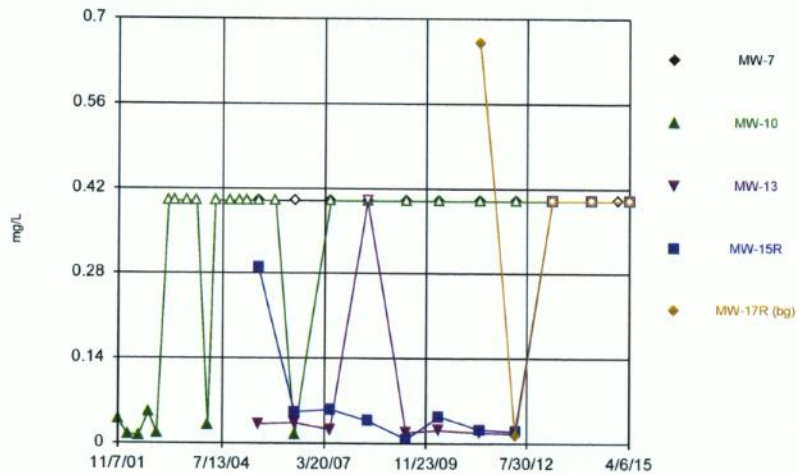
Constituent: TOX [Total Organic Halides] Analysis Run 6/2/2015 12:45 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Vanadium Analysis Run 6/2/2015 12:45 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

Time Series



Constituent: Zinc Analysis Run 6/2/2015 12:45 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

## Time Series

Constituent: TOX [Total Organic Halides] (mg/L)    Analysis Run 6/2/2015 12:46 PM    View: Time Series  
 Blue Ridge    Client: Cornerstone Environmental Group, LLC    Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
5/11/1993	<1	<1			
7/16/1993	<1	0.01			
10/11/1993	0.008	0.016			
1/13/1994	0.028	0.384			
4/20/1994	<1	0.08			
7/13/1994	<1	0.166			
10/12/1994	<1	0.203	0.033		
12/23/1994			0.014		
1/23/1995	<1	0.271	0.048		
4/13/1995	<1	0.195	0.016		
8/2/1995	<1	0.287	0.013		
10/18/1995	<1	0.305	<1		
1/18/1996	<1	0.369	0.011		
4/17/1996	<1	0.193	0.047		
7/17/1996	<1	0.352	0.022		
11/7/1996	<1	0.469	<1		
1/22/1997	<1	0.379	0.02		
4/8/1997	<1	0.231	0.015		
7/14/1997	<1	0.505	0.041		
10/22/1997	<1	0.588	0.0225		
1/7/1998	<1	0.621	<1		
4/6/1998	<1	0.345	0.036		
7/14/1998	0.011	0.487	0.077		
10/20/1998	0.023	0.552	0.183		
3/3/1999	0.012	0.203	0.14		
6/22/1999	0.016	0.295	0.081		
8/31/1999	0.034	0.38	0.098		
11/30/1999	0.04	0.56	0.15		
2/15/2000	0.0114	0.457	0.136	0.04	
6/27/2000	0.0222	0.757	0.1		
9/26/2000	0.011	0.39	0.31	0.04	
12/12/2000	0.011	0.5	0.14	0.03	
2/27/2001	0.018	0.57	0.028	<1	
6/6/2001	0.02	0.268	0.184	0.03	
8/15/2001	0.021	0.224	0.271	0.02	
11/7/2001	0.036	0.26	0.24	0.032	
2/6/2002	0.015	0.19	0.44	0.022	
5/22/2002	0.053	0.28	0.27	0.024	
8/21/2002	0.021	0.17	0.1	0.012	
11/7/2002	0.026	0.17	0.14	<1	
2/21/2003	<1	0.12	0.12	<1	
4/16/2003	<1	0.12	0.253	<1	
8/14/2003			0.019	<1	
8/15/2003	<1	0.29			
11/12/2003	<1	0.31	0.068	<1	
3/3/2004	<1	0.29	0.16	<1	
5/4/2004	<1	0.33	0.058	<1	
9/21/2004	<1	<1	<1	<1	
12/15/2004	0.025	0.33	0.27	0.018	
2/22/2005	<1	<1	<1	<1	
6/16/2005	0.032	0.298	0.069		
6/17/2005				0.023	

# Time Series

Constituent: TOX [Total Organic Halides] (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
 Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
8/17/2005	0.031		0.085	0.015	
11/30/2005	0.096		0.184		
12/1/2005		0.151		0.038	
3/7/2006				0.017	
3/8/2006		0.119	0.072		
3/9/2006	0.094				
6/5/2006			0.06		
6/6/2006	0.014	0.174		0.026	
8/10/2006	0.027	0.145	0.063	0.052	
11/30/2006				0.015	
12/1/2006	0.019	0.13	0.047		
2/12/2007	0.077			0.022	
2/13/2007		0.114	0.059		
5/14/2007	<1	0.223	0.098	<1	
9/10/2007	0.038	0.303	0.122	0.018	
11/11/2007		0.315	0.136		
11/12/2007				0.018	
11/13/2007	0.069				
1/15/2008	0.032		0.096	0.013	
5/6/2008			0.22		
5/7/2008	0.038	0.022		0.029	
8/5/2008		0.18	0.22	<1	
8/6/2008	0.041				
11/19/2008			0.096	0.026	
11/20/2008	0.039				
3/23/2009			0.21		
3/24/2009	0.048			<1	
5/20/2009	0.061	0.19	0.22	<1	
9/9/2009		0.24	0.12		
9/10/2009	0.059			0.02	
11/23/2009	0.038	0.15	0.23	0.021	
2/23/2010	0.028	0.2	0.19	0.026	
4/6/2010	0.038	0.19	0.16	0.042	
9/13/2010	0.11	0.2	0.22	0.036	
11/17/2010			0.28	0.023	
11/18/2010	0.13	0.22			1.4
1/27/2011					
1/28/2011					
4/29/2011	0.0655	0.313	0.184	0.0215	4.52
7/26/2011		0.221	0.193	<1	5.3
7/27/2011	0.0841				
11/10/2011	0.219	0.417	0.793	0.0329	2.45
1/5/2012	0.24				
1/31/2012	0.094	0.34	0.37		1.3
2/1/2012				0.035	
4/17/2012	0.13	0.31	0.075	<1	0.7
7/17/2012	0.0495	0.258	0.247		0.359
10/4/2012	0.157	0.591	0.187		1
1/24/2013			0.822		1.23
4/4/2013			0.282	0.058	1.21
5/1/2013	0.05	0.298		0.0274	
7/11/2013	0.114	0.787	0.159	<1	1.09

# Time Series

Constituent: TOX [Total Organic Halides] (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
10/14/2013	0.0943	0.226	0.214	0.0614	0.247
2/17/2014	0.539		0.856	0.0286	0.351
3/11/2014		0.32			
4/10/2014	<1	0.27	0.16	0.092	0.2
7/8/2014	0.069	0.24	0.094	0.024	0.14
10/13/2014	0.093	0.26	0.15	0.056	0.16
1/21/2015	0.084	0.26	0.15	0.043	0.79
4/6/2015	0.21	3.3	0.16	0.071	0.13

## Time Series

Constituent: Vanadium (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series  
Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		0.013			
2/6/2002		0.012			
5/22/2002		0.011			
8/21/2002		0.01			
11/7/2002		0.016			
2/21/2003		0.014			
4/16/2003		0.012			
8/15/2003		0.01			
11/12/2003		0.01			
3/3/2004		<0.25			
5/4/2004		<0.25			
9/21/2004		<0.25			
12/15/2004		0.013			
2/22/2005		<0.25			
6/16/2005	<0.25	<0.25	<0.25		
6/17/2005				<0.25	
12/1/2005		<0.25			
6/5/2006			<0.25		
6/6/2006	<0.25	<0.25		0.014	
5/14/2007	<0.25	<0.25	<0.25	0.014	
5/6/2008			<0.25		
5/7/2008	<0.25	<0.25		0.018	
5/20/2009	<0.25	<0.25	<0.25	<0.25	
4/6/2010	<0.25	<0.25	<0.25	<0.25	
4/29/2011	<0.25	0.008	<0.25	<0.25	0.0055
4/17/2012	<0.25	<0.25	<0.25	<0.25	<0.25
4/4/2013	<0.25	0.0076	<0.25	<0.25	<0.25
4/10/2014	<0.25	0.0063	<0.25	<0.25	<0.25
12/16/2014	<0.25				
4/6/2015	<0.25	0.0073	<0.25	<0.25	<0.25

# Time Series

Constituent: Zinc (mg/L) Analysis Run 6/2/2015 12:46 PM View: Time Series

Blue Ridge Client: Cornerstone Environmental Group, LLC Data: Historical Database - Blue Ridge

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	MW-7	MW-10	MW-13	MW-15R	MW-17R (bg)
11/7/2001		0.039			
2/6/2002		0.015			
5/22/2002		0.013			
8/21/2002		0.051			
11/7/2002		0.017			
2/21/2003		<0.4			
4/16/2003		<0.4			
8/15/2003		<0.4			
11/12/2003		<0.4			
3/3/2004		0.031			
5/4/2004		<0.4			
9/21/2004		<0.4			
12/15/2004		<0.4			
2/22/2005		<0.4			
6/16/2005	<0.4	<0.4	0.032		
6/17/2005				0.29	
12/1/2005		<0.4			
6/5/2006			0.034		
6/6/2006	<0.4	0.014		0.052	
5/14/2007	<0.4	<0.4	0.023	0.056	
5/6/2008			<0.4		
5/7/2008	<0.4	<0.4		0.0378	
5/20/2009	<0.4	<0.4	0.0182	0.00721	
4/6/2010	<0.4	<0.4	0.0216	0.0448	
4/29/2011	<0.4	<0.4	0.018	0.023	0.66
4/17/2012	<0.4	<0.4	0.0158	0.0195	0.0118
4/4/2013	<0.4	<0.4	<0.4	<0.4	<0.4
4/10/2014	<0.4	<0.4	<0.4	<0.4	<0.4
12/16/2014	<0.4				
4/6/2015	<0.4	<0.4	<0.4	<0.4	<0.4

***APPENDIX E***  
**LABORATORY ANALYTICAL REPORT**

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April 29, 2015

Dan Fleshour  
Advanced Disposal Blue Ridge Landfill, LLC  
2700 Winchester Rd  
Irvine, KY 40336

RE: Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Dear Dan Fleshour:

Enclosed are the analytical results for sample(s) received by the laboratory on April 07, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Cindy Varga  
cindy.varga@pacelabs.com  
Project Manager

Enclosures

cc: Kari Wallover, Cornerstone Environmental Group, LLC



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

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### **New Orleans Certification IDs**

California Env. Lab Accreditation Program Branch:  
11277CA  
Florida Department of Health (NELAC): E87595  
Illinois Environmental Protection Agency: 0025721  
Kansas Department of Health and Environment (NELAC):  
E-10266  
Louisiana Dept. of Environmental Quality (NELAC/LELAP):  
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202  
Texas Commission on Env. Quality (NELAC):  
T104704405-09-TX  
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-  
00119

### **Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40112711001	MW-7	Water	04/06/15 11:25	04/07/15 09:40
40112711002	MW-10	Water	04/06/15 12:03	04/07/15 09:40
40112711003	MW-13	Water	04/06/15 13:00	04/07/15 09:40
40112711004	MW-15R	Water	04/06/15 12:30	04/07/15 09:40
40112711005	MW-17R	Water	04/06/15 13:40	04/07/15 09:40
40112711006	FIELD DUPLICATE	Water	04/06/15 13:10	04/07/15 09:40
40112711007	TRIP BLANK	Water	04/06/15 00:00	04/07/15 09:40
40112711008	EQUIPMENT BLANK	Water	04/06/15 15:25	04/07/15 09:40

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**SAMPLE ANALYTE COUNT**

Project: BLUE RIDGE GW April 2015  
 Pace Project No.: 40112711

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40112711001	MW-7	EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
			CDH	3	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
		EPA 9020B	JRP	1	PASI-N
		EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
40112711002	MW-10	EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
			CDH	3	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
		EPA 9020B	JRP	1	PASI-N
		EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
40112711003	MW-13	EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
			CDH	3	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
		EPA 9020B	JRP	1	PASI-N
		EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
40112711004	MW-15R	EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
			CDH	3	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G

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**SAMPLE ANALYTE COUNT**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40112711005	MW-17R	EPA 9020B	JRP	1	PASI-N
		EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
		EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
			CDH	3	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40112711006	FIELD DUPLICATE	EPA 9020B	JRP	1	PASI-N
		EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
		EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8260	HNW	52	PASI-G
		SM 2540C	MLH	1	PASI-G
		EPA 410.4	TJJ	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
		EPA 9020B	JRP	1	PASI-N
40112711007	TRIP BLANK	EPA 9056	HMB	1	PASI-G
		EPA 9056	HMB	1	PASI-G
40112711007	TRIP BLANK	EPA 8260	HNW	52	PASI-G
40112711008	EQUIPMENT BLANK	EPA 6020	DS1	17	PASI-G
		EPA 7470	AJT	1	PASI-G

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015

Pace Project No.: 40112711

**Sample: MW-7**      **Lab ID: 40112711001**      Collected: 04/06/15 11:25      Received: 04/07/15 09:40      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010								
Antimony	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-36-0	D4
Arsenic	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-38-2	D4
Barium	219	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-39-3	
Beryllium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-41-7	D4
Cadmium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-43-9	D4
Chromium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-47-3	D4
Cobalt	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-48-4	D4
Copper	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-50-8	D4
Iron	4490	ug/L	1250	5	04/14/15 10:27	04/18/15 03:38	7439-89-6	
Lead	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7439-92-1	D4
Nickel	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-02-0	D4
Selenium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7782-49-2	D4
Silver	<2.5	ug/L	2.5	5	04/14/15 10:27	04/18/15 03:38	7440-22-4	D4
Sodium	1080000	ug/L	25000	100	04/14/15 10:27	04/18/15 03:12	7440-23-5	P6
Thallium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/20/15 16:05	7440-28-0	D4
Vanadium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 03:38	7440-62-2	D4
Zinc	<50.0	ug/L	50.0	5	04/14/15 10:27	04/18/15 03:38	7440-66-6	D4

### 7470 Mercury

Analytical Method: EPA 7470      Preparation Method: EPA 7470

Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:12	7439-97-6	
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### 8260 MSV Oxygenates

Analytical Method: EPA 8260

1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:02	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:02	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 11:02	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 11:02	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:02	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:02	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:02	106-46-7	
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 11:02	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 11:02	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 11:02	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 11:02	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 11:02	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 11:02	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 11:02	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 11:02	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:02	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 11:02	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 11:02	75-25-2	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
 Pace Project No.: 40112711

Sample: MW-7	Lab ID: 40112711001	Collected: 04/06/15 11:25	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 11:02	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 11:02	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 11:02	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:02	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 11:02	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 11:02	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 11:02	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:02	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 11:02	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 11:02	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 11:02	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 11:02	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 11:02	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 11:02	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 11:02	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:02	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 11:02	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 11:02	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 11:02	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 11:02	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:02	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:02	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:02	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:02	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 11:02	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	96	%	70-130	1		04/08/15 11:02	1868-53-7	
Toluene-d8 (S)	100	%	70-130	1		04/08/15 11:02	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130	1		04/08/15 11:02	460-00-4	
<b>Field Data</b>		Analytical Method:						
Field pH	7.28	Std. Units		1		04/06/15 11:25		
Field Specific Conductance	4900	umhos/cm		1		04/06/15 11:25		
Temperature, Water (C)	14.50	deg C		1		04/06/15 11:25		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C						
Total Dissolved Solids	2860	mg/L	20.0	1		04/10/15 19:10		
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4						
Chemical Oxygen Demand	54.3	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:46		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	<0.50	mg/L	0.50	1		04/08/15 17:33	7440-44-0	
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B						
Total Organic Halides	0.21	mg/L	0.020	1		04/24/15 12:52		

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-7		Lab ID: 40112711001	Collected: 04/06/15 11:25	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056						
Chloride	1020	mg/L	200	50		04/07/15 20:42	16887-00-6	
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056						
Nitrate as N	1.0	mg/L	0.30	1		04/07/15 13:33	14797-55-8	

Sample: MW-10		Lab ID: 40112711002	Collected: 04/06/15 12:03	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Antimony	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-36-0	D4
Arsenic	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-38-2	D4
Barium	94.6	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-39-3	
Beryllium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-41-7	D4
Cadmium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-43-9	D4
Chromium	5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-47-3	
Cobalt	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-48-4	D4
Copper	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-50-8	D4
Iron	<1250	ug/L	1250	5	04/14/15 10:27	04/18/15 04:17	7439-89-6	D4
Lead	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7439-92-1	D4
Nickel	11.1	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-02-0	
Selenium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7782-49-2	D4
Silver	<2.5	ug/L	2.5	5	04/14/15 10:27	04/18/15 04:17	7440-22-4	D4
Sodium	562000	ug/L	1250	5	04/14/15 10:27	04/18/15 04:17	7440-23-5	
Thallium	<5.0	ug/L	5.0	5	04/14/15 10:27	04/20/15 16:30	7440-28-0	D4
Vanadium	7.3	ug/L	5.0	5	04/14/15 10:27	04/18/15 04:17	7440-62-2	
Zinc	<50.0	ug/L	50.0	5	04/14/15 10:27	04/18/15 04:17	7440-66-6	D4

<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:24	7439-97-6	

<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:25	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:25	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 11:25	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 11:25	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:25	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:25	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:25	106-46-7	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

**Sample: MW-10**      **Lab ID: 40112711002**      Collected: 04/06/15 12:03      Received: 04/07/15 09:40      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 11:25	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 11:25	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 11:25	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 11:25	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 11:25	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 11:25	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 11:25	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 11:25	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:25	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 11:25	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 11:25	75-25-2	
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 11:25	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 11:25	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 11:25	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:25	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 11:25	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 11:25	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 11:25	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:25	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 11:25	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 11:25	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 11:25	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 11:25	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 11:25	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 11:25	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 11:25	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:25	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 11:25	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 11:25	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 11:25	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 11:25	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:25	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:25	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:25	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:25	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 11:25	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102	%	70-130	1		04/08/15 11:25	1868-53-7	
Toluene-d8 (S)	96	%	70-130	1		04/08/15 11:25	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130	1		04/08/15 11:25	460-00-4	

**Field Data**

Analytical Method:

Field pH	7.77	Std. Units		1		04/06/15 12:03		
Field Specific Conductance	2044	umhos/cm		1		04/06/15 12:03		
Temperature, Water (C)	15.61	deg C		1		04/06/15 12:03		

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-10		Lab ID: 40112711002	Collected: 04/06/15 12:03	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C						
Total Dissolved Solids	1290	mg/L	20.0	1		04/10/15 19:13		
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4						
Chemical Oxygen Demand	93.6	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:46		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	37.1	mg/L	10.0	20		04/08/15 17:52	7440-44-0	
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B						
Total Organic Halides	3.3	mg/L	0.40	20		04/28/15 10:16		
<b>9056 IC Anions</b>		Analytical Method: EPA 9056						
Chloride	145	mg/L	40.0	10		04/07/15 20:54	16887-00-6	
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056						
Nitrate as N	<3.0	mg/L	3.0	10		04/07/15 20:54	14797-55-8	D3

Sample: MW-13		Lab ID: 40112711003	Collected: 04/06/15 13:00	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Antimony	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-36-0	D4
Arsenic	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-38-2	D4
Barium	284	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-39-3	
Beryllium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-41-7	D4
Cadmium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-43-9	D4
Chromium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-47-3	D4
Cobalt	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-48-4	D4
Copper	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-50-8	D4
Iron	11500	ug/L	2500	10	04/14/15 10:27	04/18/15 04:30	7439-89-6	
Lead	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7439-92-1	D4
Nickel	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-02-0	D4
Selenium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7782-49-2	D4
Silver	<5.0	ug/L	5.0	10	04/14/15 10:27	04/18/15 04:30	7440-22-4	D4
Sodium	3200000	ug/L	2500	10	04/14/15 10:27	04/18/15 04:30	7440-23-5	
Thallium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/20/15 16:43	7440-28-0	D4
Vanadium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:30	7440-62-2	D4
Zinc	<100	ug/L	100	10	04/14/15 10:27	04/18/15 04:30	7440-66-6	D4
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:26	7439-97-6	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-13	Lab ID: 40112711003	Collected: 04/06/15 13:00	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:48	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:48	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 11:48	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 11:48	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:48	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 11:48	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:48	106-46-7	
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 11:48	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 11:48	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 11:48	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 11:48	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 11:48	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 11:48	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 11:48	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 11:48	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:48	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 11:48	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 11:48	75-25-2	
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 11:48	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 11:48	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 11:48	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 11:48	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 11:48	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 11:48	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 11:48	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 11:48	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 11:48	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 11:48	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 11:48	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 11:48	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 11:48	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 11:48	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 11:48	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:48	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 11:48	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 11:48	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 11:48	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 11:48	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:48	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:48	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 11:48	156-60-5	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015

Pace Project No.: 40112711

Sample: MW-13		Lab ID: 40112711003		Collected: 04/06/15 13:00	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 11:48	10061-02-6		
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 11:48	110-57-6		
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	70-130	1		04/08/15 11:48	1868-53-7		
Toluene-d8 (S)	98	%	70-130	1		04/08/15 11:48	2037-26-5		
4-Bromofluorobenzene (S)	93	%	70-130	1		04/08/15 11:48	460-00-4		
<b>Field Data</b>		Analytical Method:							
Field pH	7.32	Std. Units		1		04/06/15 13:00			
Field Specific Conductance	14560	umhos/cm		1		04/06/15 13:00			
Temperature, Water (C)	14.16	deg C		1		04/06/15 13:00			
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	8750	mg/L	20.0	1		04/10/15 19:13			
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	237	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:47			
<b>5310C TOC</b>		Analytical Method: SM 5310C							
Total Organic Carbon	<0.50	mg/L	0.50	1		04/08/15 18:11	7440-44-0		
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B							
Total Organic Halides	0.16	mg/L	0.020	1		04/28/15 11:04			
<b>9056 IC Anions</b>		Analytical Method: EPA 9056							
Chloride	5200	mg/L	400	100		04/07/15 22:19	16887-00-6		
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056							
Nitrate as N	1.7	mg/L	0.30	1		04/07/15 13:57	14797-55-8		

Sample: MW-15R		Lab ID: 40112711004		Collected: 04/06/15 12:30	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Antimony	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-36-0		
Arsenic	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-38-2		
Barium	31.6	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-39-3		
Beryllium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-41-7		
Cadmium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-43-9		
Chromium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-47-3		
Cobalt	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-48-4		
Copper	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-50-8		
Iron	11600	ug/L	250	1	04/14/15 10:27	04/18/15 04:36	7439-89-6		

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

**Sample: MW-15R**      **Lab ID: 40112711004**      Collected: 04/06/15 12:30      Received: 04/07/15 09:40      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Lead	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7439-92-1	
Nickel	2.5	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-02-0	
Selenium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7782-49-2	
Silver	<0.50	ug/L	0.50	1	04/14/15 10:27	04/18/15 04:36	7440-22-4	
Sodium	344000	ug/L	250	1	04/14/15 10:27	04/18/15 04:36	7440-23-5	
Thallium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/20/15 16:50	7440-28-0	
Vanadium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:36	7440-62-2	
Zinc	<10.0	ug/L	10.0	1	04/14/15 10:27	04/18/15 04:36	7440-66-6	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:29	7439-97-6	
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:11	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:11	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 12:11	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 12:11	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:11	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:11	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:11	106-46-7	
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 12:11	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 12:11	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 12:11	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 12:11	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 12:11	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 12:11	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 12:11	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 12:11	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:11	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 12:11	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 12:11	75-25-2	
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 12:11	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 12:11	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 12:11	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:11	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 12:11	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 12:11	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 12:11	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:11	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 12:11	74-95-3	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-15R	Lab ID: 40112711004	Collected: 04/06/15 12:30	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 12:11	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 12:11	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 12:11	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 12:11	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 12:11	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 12:11	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:11	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 12:11	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 12:11	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 12:11	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 12:11	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:11	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:11	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:11	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:11	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 12:11	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	98	%	70-130	1		04/08/15 12:11	1868-53-7	
Toluene-d8 (S)	98	%	70-130	1		04/08/15 12:11	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130	1		04/08/15 12:11	460-00-4	
<b>Field Data</b>		Analytical Method:						
Field pH	7.16	Std. Units		1		04/06/15 12:30		
Field Specific Conductance	3839	umhos/cm		1		04/06/15 12:30		
Temperature, Water (C)	23.70	deg C		1		04/06/15 12:30		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C						
Total Dissolved Solids	2660	mg/L	20.0	1		04/10/15 19:13		
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4						
Chemical Oxygen Demand	<50.0	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:47		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	10.9	mg/L	3.0	6		04/08/15 20:04	7440-44-0	
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B						
Total Organic Halides	0.071	mg/L	0.020	1		04/28/15 12:17		
<b>9056 IC Anions</b>		Analytical Method: EPA 9056						
Chloride	72.0	mg/L	20.0	5		04/07/15 22:31	16887-00-6	
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056						
Nitrate as N	<0.30	mg/L	0.30	1		04/07/15 14:09	14797-55-8	

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## ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-17R      Lab ID: 40112711005      Collected: 04/06/15 13:40      Received: 04/07/15 09:40      Matrix: Water								
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010								
Antimony	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-36-0	D4
Arsenic	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-38-2	D4
Barium	72.9	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-39-3	
Beryllium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-41-7	D4
Cadmium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-43-9	D4
Chromium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-47-3	D4
Cobalt	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-48-4	D4
Copper	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-50-8	D4
Iron	<2500	ug/L	2500	10	04/14/15 10:27	04/18/15 04:43	7439-89-6	D4
Lead	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7439-92-1	D4
Nickel	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-02-0	D4
Selenium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7782-49-2	D4
Silver	<5.0	ug/L	5.0	10	04/14/15 10:27	04/18/15 04:43	7440-22-4	D4
Sodium	1170000	ug/L	2500	10	04/14/15 10:27	04/18/15 04:43	7440-23-5	
Thallium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/20/15 17:09	7440-28-0	D4
Vanadium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:43	7440-62-2	D4
Zinc	<100	ug/L	100	10	04/14/15 10:27	04/18/15 04:43	7440-66-6	D4
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470								
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:31	7439-97-6	
<b>8260 MSV Oxygenates</b> Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	71-55-6	
1,1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:34	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:34	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 12:34	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 12:34	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:34	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:34	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:34	106-46-7	
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 12:34	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 12:34	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 12:34	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 12:34	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 12:34	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 12:34	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 12:34	107-13-1	
Benzene	7.6	ug/L	1.0	1		04/08/15 12:34	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:34	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 12:34	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 12:34	75-25-2	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-17R	Lab ID: 40112711005	Collected: 04/06/15 13:40	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 12:34	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 12:34	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 12:34	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:34	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 12:34	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 12:34	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 12:34	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:34	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 12:34	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 12:34	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 12:34	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 12:34	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 12:34	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 12:34	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 12:34	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:34	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 12:34	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 12:34	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 12:34	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 12:34	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:34	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:34	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:34	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:34	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 12:34	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101	%	70-130	1		04/08/15 12:34	1868-53-7	
Toluene-d8 (S)	99	%	70-130	1		04/08/15 12:34	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130	1		04/08/15 12:34	460-00-4	
<b>Field Data</b>		Analytical Method:						
Field pH	7.82	Std. Units		1		04/06/15 13:40		
Field Specific Conductance	4445	umhos/cm		1		04/06/15 13:40		
Temperature, Water (C)	14.68	deg C		1		04/06/15 13:40		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C						
Total Dissolved Solids	2950	mg/L	20.0	1		04/10/15 19:14		
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4						
Chemical Oxygen Demand	68.2	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:47		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	21.2	mg/L	10.0	20		04/08/15 18:49	7440-44-0	
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B						
Total Organic Halides	0.13	mg/L	0.020	1		04/28/15 12:51		

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: MW-17R		Lab ID: 40112711005	Collected: 04/06/15 13:40	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056						
Chloride	300	mg/L	40.0	10		04/07/15 22:43	16887-00-6	
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056						
Nitrate as N	<0.30	mg/L	0.30	1		04/07/15 14:21	14797-55-8	

Sample: FIELD DUPLICATE		Lab ID: 40112711006	Collected: 04/06/15 13:10	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Antimony	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-36-0	D4
Arsenic	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-38-2	D4
Barium	275	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-39-3	
Beryllium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-41-7	D4
Cadmium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-43-9	D4
Chromium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-47-3	D4
Cobalt	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-48-4	D4
Copper	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-50-8	D4
Iron	11700	ug/L	2500	10	04/14/15 10:27	04/18/15 04:49	7439-89-6	
Lead	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7439-92-1	D4
Nickel	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-02-0	D4
Selenium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7782-49-2	D4
Silver	<5.0	ug/L	5.0	10	04/14/15 10:27	04/18/15 04:49	7440-22-4	D4
Sodium	3160000	ug/L	2500	10	04/14/15 10:27	04/18/15 04:49	7440-23-5	
Thallium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/20/15 17:15	7440-28-0	D4
Vanadium	<10.0	ug/L	10.0	10	04/14/15 10:27	04/18/15 04:49	7440-62-2	D4
Zinc	<100	ug/L	100	10	04/14/15 10:27	04/18/15 04:49	7440-66-6	D4

<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:33	7439-97-6	

<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:57	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:57	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 12:57	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 12:57	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:57	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 12:57	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:57	106-46-7	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: FIELD DUPLICATE	Lab ID: 40112711006	Collected: 04/06/15 13:10	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 12:57	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 12:57	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 12:57	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 12:57	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 12:57	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 12:57	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 12:57	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 12:57	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:57	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 12:57	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 12:57	75-25-2	
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 12:57	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 12:57	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 12:57	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 12:57	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 12:57	75-00-3	
Chloroform	<5.0	ug/L	5.0	1		04/08/15 12:57	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 12:57	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 12:57	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 12:57	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 12:57	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 12:57	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 12:57	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 12:57	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 12:57	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 12:57	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:57	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 12:57	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 12:57	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 12:57	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 12:57	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:57	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:57	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 12:57	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 12:57	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 12:57	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102	%	70-130	1		04/08/15 12:57	1868-53-7	
Toluene-d8 (S)	99	%	70-130	1		04/08/15 12:57	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130	1		04/08/15 12:57	460-00-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C						
Total Dissolved Solids	<b>8770</b>	mg/L	20.0	1		04/10/15 19:14		
<b>410.4 COD</b>		Analytical Method: EPA 410.4 Preparation Method: EPA 410.4						
Chemical Oxygen Demand	<b>202</b>	mg/L	50.0	1	04/16/15 10:08	04/16/15 12:47		

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015

Pace Project No.: 40112711

Sample: FIELD DUPLICATE		Lab ID: 40112711006	Collected: 04/06/15 13:10	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	<0.50	mg/L	0.50	1		04/08/15 19:07	7440-44-0	
<b>Total Organic Halides</b>		Analytical Method: EPA 9020B						
Total Organic Halides	0.17	mg/L	0.020	1		04/28/15 13:39		
<b>9056 IC Anions</b>		Analytical Method: EPA 9056						
Chloride	5140	mg/L	400	100		04/07/15 22:55	16887-00-6	
<b>9056 IC Anions 48hr</b>		Analytical Method: EPA 9056						
Nitrate as N	1.7	mg/L	0.30	1		04/07/15 14:57	14797-55-8	

Sample: TRIP BLANK		Lab ID: 40112711007	Collected: 04/06/15 00:00	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	630-20-6	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	71-55-6	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	79-34-5	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	79-00-5	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	75-34-3	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 13:20	75-35-4	
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1		04/08/15 13:20	96-18-4	
1,2-Dibromo-3-chloropropane	<5.0	ug/L	5.0	1		04/08/15 13:20	96-12-8	
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1		04/08/15 13:20	106-93-4	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 13:20	95-50-1	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	107-06-2	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		04/08/15 13:20	78-87-5	
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1		04/08/15 13:20	106-46-7	
2-Butanone (MEK)	<20.0	ug/L	20.0	1		04/08/15 13:20	78-93-3	
2-Chloroethylvinyl ether	<5.0	ug/L	5.0	1		04/08/15 13:20	110-75-8	
2-Hexanone	<5.0	ug/L	5.0	1		04/08/15 13:20	591-78-6	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		04/08/15 13:20	108-10-1	
Acetone	<20.0	ug/L	20.0	1		04/08/15 13:20	67-64-1	
Acrolein	<20.0	ug/L	20.0	1		04/08/15 13:20	107-02-8	
Acrylonitrile	<5.0	ug/L	5.0	1		04/08/15 13:20	107-13-1	
Benzene	<1.0	ug/L	1.0	1		04/08/15 13:20	71-43-2	
Bromochloromethane	<1.0	ug/L	1.0	1		04/08/15 13:20	74-97-5	
Bromodichloromethane	<1.0	ug/L	1.0	1		04/08/15 13:20	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		04/08/15 13:20	75-25-2	
Bromomethane	<5.0	ug/L	5.0	1		04/08/15 13:20	74-83-9	
Carbon disulfide	<5.0	ug/L	5.0	1		04/08/15 13:20	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		04/08/15 13:20	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		04/08/15 13:20	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		04/08/15 13:20	75-00-3	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Sample: TRIP BLANK	Lab ID: 40112711007	Collected: 04/06/15 00:00	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Oxygenates</b>		Analytical Method: EPA 8260						
Chloroform	<5.0	ug/L	5.0	1		04/08/15 13:20	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		04/08/15 13:20	74-87-3	
Dibromochloromethane	<1.0	ug/L	1.0	1		04/08/15 13:20	124-48-1	
Dibromomethane	<1.0	ug/L	1.0	1		04/08/15 13:20	74-95-3	
Ethylbenzene	<1.0	ug/L	1.0	1		04/08/15 13:20	100-41-4	
Iodomethane	<5.0	ug/L	5.0	1		04/08/15 13:20	74-88-4	
Methylene Chloride	<1.0	ug/L	1.0	1		04/08/15 13:20	75-09-2	
Styrene	<1.0	ug/L	1.0	1		04/08/15 13:20	100-42-5	
Tetrachloroethene	<1.0	ug/L	1.0	1		04/08/15 13:20	127-18-4	
Toluene	<1.0	ug/L	1.0	1		04/08/15 13:20	108-88-3	
Trichloroethene	<1.0	ug/L	1.0	1		04/08/15 13:20	79-01-6	
Trichlorofluoromethane	<1.0	ug/L	1.0	1		04/08/15 13:20	75-69-4	
Vinyl acetate	<5.0	ug/L	5.0	1		04/08/15 13:20	108-05-4	
Vinyl chloride	<1.0	ug/L	1.0	1		04/08/15 13:20	75-01-4	
Xylene (Total)	<3.0	ug/L	3.0	1		04/08/15 13:20	1330-20-7	
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 13:20	156-59-2	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 13:20	10061-01-5	
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1		04/08/15 13:20	156-60-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		04/08/15 13:20	10061-02-6	
trans-1,4-Dichloro-2-butene	<5.0	ug/L	5.0	1		04/08/15 13:20	110-57-6	
<b>Surrogates</b>								
Dibromofluoromethane (S)	100	%	70-130	1		04/08/15 13:20	1868-53-7	
Toluene-d8 (S)	97	%	70-130	1		04/08/15 13:20	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130	1		04/08/15 13:20	460-00-4	

Sample: EQUIPMENT BLANK	Lab ID: 40112711008	Collected: 04/06/15 15:25	Received: 04/07/15 09:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Antimony	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-36-0	
Arsenic	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-38-2	
Barium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-39-3	
Beryllium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-41-7	
Cadmium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-43-9	
Chromium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-47-3	
Cobalt	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-48-4	
Copper	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-50-8	
Iron	<250	ug/L	250	1	04/14/15 10:27	04/18/15 04:56	7439-89-6	
Lead	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7439-92-1	
Nickel	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-02-0	
Selenium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7782-49-2	
Silver	<0.50	ug/L	0.50	1	04/14/15 10:27	04/18/15 04:56	7440-22-4	
Sodium	555	ug/L	250	1	04/14/15 10:27	04/18/15 04:56	7440-23-5	
Thallium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/20/15 17:21	7440-28-0	
Vanadium	<1.0	ug/L	1.0	1	04/14/15 10:27	04/18/15 04:56	7440-62-2	

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### ANALYTICAL RESULTS

Project: BLUE RIDGE GW April 2015

Pace Project No.: 40112711

Sample: EQUIPMENT BLANK		Lab ID: 40112711008	Collected: 04/06/15 15:25	Received: 04/07/15 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020 Preparation Method: EPA 3010						
Zinc	<10.0	ug/L	10.0	1	04/14/15 10:27	04/18/15 04:56	7440-66-6	
<b>7470 Mercury</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	<0.20	ug/L	0.20	1	04/08/15 11:40	04/09/15 09:35	7439-97-6	

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### QUALITY CONTROL DATA

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

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QC Batch: MERP/4849                      Analysis Method: EPA 7470  
QC Batch Method: EPA 7470              Analysis Description: 7470 Mercury  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711008

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METHOD BLANK: 1138498                      Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	04/09/15 09:08	

LABORATORY CONTROL SAMPLE: 1138499

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138500                      1138501

Parameter	Units	40112711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.20	5	5	5.4	5.3	108	106	85-115	2	20	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: MPRP/11716 Analysis Method: EPA 6020  
QC Batch Method: EPA 3010 Analysis Description: 6020 MET  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711008

METHOD BLANK: 1140851 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<1.0	1.0	04/18/15 02:59	
Arsenic	ug/L	<1.0	1.0	04/18/15 02:59	
Barium	ug/L	<1.0	1.0	04/18/15 02:59	
Beryllium	ug/L	<1.0	1.0	04/18/15 02:59	
Cadmium	ug/L	<1.0	1.0	04/18/15 02:59	
Chromium	ug/L	<1.0	1.0	04/18/15 02:59	
Cobalt	ug/L	<1.0	1.0	04/18/15 02:59	
Copper	ug/L	<1.0	1.0	04/18/15 02:59	
Iron	ug/L	<250	250	04/18/15 02:59	
Lead	ug/L	<1.0	1.0	04/18/15 02:59	
Nickel	ug/L	<1.0	1.0	04/18/15 02:59	
Selenium	ug/L	<1.0	1.0	04/18/15 02:59	
Silver	ug/L	<0.50	0.50	04/18/15 02:59	
Sodium	ug/L	<250	250	04/18/15 02:59	
Thallium	ug/L	<1.0	1.0	04/20/15 15:52	
Vanadium	ug/L	<1.0	1.0	04/18/15 02:59	
Zinc	ug/L	<10.0	10.0	04/18/15 02:59	

LABORATORY CONTROL SAMPLE: 1140852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	504	101	80-120	
Arsenic	ug/L	500	490	98	80-120	
Barium	ug/L	500	482	96	80-120	
Beryllium	ug/L	500	494	99	80-120	
Cadmium	ug/L	500	494	99	80-120	
Chromium	ug/L	500	478	96	80-120	
Cobalt	ug/L	500	472	94	80-120	
Copper	ug/L	500	479	96	80-120	
Iron	ug/L	5000	4910	98	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	476	95	80-120	
Selenium	ug/L	500	501	100	80-120	
Silver	ug/L	250	246	98	80-120	
Sodium	ug/L	5000	4680	94	80-120	
Thallium	ug/L	500	500	100	80-120	
Vanadium	ug/L	500	479	96	80-120	
Zinc	ug/L	500	497	99	80-120	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1140853			1140854			% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		40112711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS Result							
Antimony	ug/L	<5.0	500	500	516	518	103	103	75-125	0	20			
Arsenic	ug/L	<5.0	500	500	507	511	101	102	75-125	1	20			
Barium	ug/L	219	500	500	714	724	99	101	75-125	1	20			
Beryllium	ug/L	<5.0	500	500	470	475	94	95	75-125	1	20			
Cadmium	ug/L	<5.0	500	500	490	490	98	98	75-125	0	20			
Chromium	ug/L	<5.0	500	500	479	484	96	97	75-125	1	20			
Cobalt	ug/L	<5.0	500	500	472	477	94	95	75-125	1	20			
Copper	ug/L	<5.0	500	500	466	472	93	94	75-125	1	20			
Iron	ug/L	4490	5000	5000	9330	9380	97	98	75-125	1	20			
Lead	ug/L	<5.0	500	500	486	492	97	98	75-125	1	20			
Nickel	ug/L	<5.0	500	500	463	467	92	93	75-125	1	20			
Selenium	ug/L	<5.0	500	500	511	515	102	103	75-125	1	20			
Silver	ug/L	<2.5	250	250	234	235	93	94	75-125	0	20			
Sodium	ug/L	1080000	5000	5000	1080000	1070000	-80	-220	75-125	1	20	P6		
Thallium	ug/L	<5.0	500	500	504	510	101	102	75-125	1	20			
Vanadium	ug/L	<5.0	500	500	489	495	98	99	75-125	1	20			
Zinc	ug/L	<50.0	500	500	508	507	100	100	75-125	0	20			

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### QUALITY CONTROL DATA

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: MSV/28001 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711007

METHOD BLANK: 1138281 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,1-Dichloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,1-Dichloroethene	ug/L	<1.0	1.0	04/08/15 08:45	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	04/08/15 08:45	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	5.0	04/08/15 08:45	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	04/08/15 08:45	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	04/08/15 08:45	
1,2-Dichloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
1,2-Dichloropropane	ug/L	<1.0	1.0	04/08/15 08:45	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	04/08/15 08:45	
2-Butanone (MEK)	ug/L	<20.0	20.0	04/08/15 08:45	
2-Chloroethylvinyl ether	ug/L	<5.0	5.0	04/08/15 08:45	
2-Hexanone	ug/L	<5.0	5.0	04/08/15 08:45	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	04/08/15 08:45	
Acetone	ug/L	<20.0	20.0	04/08/15 08:45	
Acrolein	ug/L	<20.0	20.0	04/08/15 08:45	
Acrylonitrile	ug/L	<5.0	5.0	04/08/15 08:45	
Benzene	ug/L	<1.0	1.0	04/08/15 08:45	
Bromochloromethane	ug/L	<1.0	1.0	04/08/15 08:45	
Bromodichloromethane	ug/L	<1.0	1.0	04/08/15 08:45	
Bromoform	ug/L	<1.0	1.0	04/08/15 08:45	
Bromomethane	ug/L	<5.0	5.0	04/08/15 08:45	
Carbon disulfide	ug/L	<5.0	5.0	04/08/15 08:45	
Carbon tetrachloride	ug/L	<1.0	1.0	04/08/15 08:45	
Chlorobenzene	ug/L	<1.0	1.0	04/08/15 08:45	
Chloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
Chloroform	ug/L	<5.0	5.0	04/08/15 08:45	
Chloromethane	ug/L	<1.0	1.0	04/08/15 08:45	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	04/08/15 08:45	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	04/08/15 08:45	
Dibromochloromethane	ug/L	<1.0	1.0	04/08/15 08:45	
Dibromomethane	ug/L	<1.0	1.0	04/08/15 08:45	
Ethylbenzene	ug/L	<1.0	1.0	04/08/15 08:45	
Iodomethane	ug/L	<5.0	5.0	04/08/15 08:45	
Methylene Chloride	ug/L	<1.0	1.0	04/08/15 08:45	
Styrene	ug/L	<1.0	1.0	04/08/15 08:45	
Tetrachloroethene	ug/L	<1.0	1.0	04/08/15 08:45	
Toluene	ug/L	<1.0	1.0	04/08/15 08:45	

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### QUALITY CONTROL DATA

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

METHOD BLANK: 1138281

Matrix: Water

Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006, 40112711007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethane	ug/L	<1.0	1.0	04/08/15 08:45	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	04/08/15 08:45	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	5.0	04/08/15 08:45	
Trichloroethene	ug/L	<1.0	1.0	04/08/15 08:45	
Trichlorofluoromethane	ug/L	<1.0	1.0	04/08/15 08:45	
Vinyl acetate	ug/L	<5.0	5.0	04/08/15 08:45	
Vinyl chloride	ug/L	<1.0	1.0	04/08/15 08:45	
Xylene (Total)	ug/L	<3.0	3.0	04/08/15 08:45	
4-Bromofluorobenzene (S)	%	93	70-130	04/08/15 08:45	
Dibromofluoromethane (S)	%	103	70-130	04/08/15 08:45	
Toluene-d8 (S)	%	90	70-130	04/08/15 08:45	

LABORATORY CONTROL SAMPLE & LCSD: 1138282

1138283

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.5	58.3	111	117	70-130	5	20	
1,1,2,2-Tetrachloroethane	ug/L	50	48.7	52.2	97	104	70-130	7	20	
1,1,2-Trichloroethane	ug/L	50	51.9	53.0	104	106	70-130	2	20	
1,1-Dichloroethane	ug/L	50	56.0	58.6	112	117	70-130	5	20	
1,1-Dichloroethene	ug/L	50	54.7	59.4	109	119	70-130	8	20	
1,2-Dibromo-3-chloropropane	ug/L	50	39.1	40.9	78	82	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/L	50	50.6	52.7	101	105	70-130	4	20	
1,2-Dichlorobenzene	ug/L	50	52.0	55.2	104	110	70-130	6	20	
1,2-Dichloroethane	ug/L	50	54.2	56.6	108	113	70-131	4	20	
1,2-Dichloropropane	ug/L	50	52.9	55.2	106	110	70-130	4	20	
1,4-Dichlorobenzene	ug/L	50	50.9	52.6	102	105	70-130	3	20	
Benzene	ug/L	50	54.9	56.5	110	113	70-130	3	20	
Bromodichloromethane	ug/L	50	52.9	56.0	106	112	70-130	6	20	
Bromoform	ug/L	50	45.0	47.2	90	94	68-130	5	20	
Bromomethane	ug/L	50	47.7	54.0	95	108	38-137	12	20	
Carbon disulfide	ug/L	50	64.3	67.2	129	134	70-154	4	20	
Carbon tetrachloride	ug/L	50	57.5	59.7	115	119	70-130	4	20	
Chlorobenzene	ug/L	50	52.5	54.7	105	109	70-130	4	20	
Chloroethane	ug/L	50	60.2	67.4	120	135	70-136	11	20	
Chloroform	ug/L	50	52.3	55.8	105	112	70-130	7	20	
Chloromethane	ug/L	50	61.7	61.7	123	123	48-144	0	20	
cis-1,2-Dichloroethene	ug/L	50	52.0	57.3	104	115	70-130	10	20	
cis-1,3-Dichloropropene	ug/L	50	45.5	48.2	91	96	70-130	6	20	
Dibromochloromethane	ug/L	50	48.4	50.8	97	102	70-130	5	20	
Ethylbenzene	ug/L	50	54.4	57.0	109	114	70-132	5	20	
Methylene Chloride	ug/L	50	52.3	55.5	105	111	70-130	6	20	
Styrene	ug/L	50	48.0	51.4	96	103	70-130	7	20	
Tetrachloroethene	ug/L	50	51.3	52.9	103	106	70-130	3	20	
Toluene	ug/L	50	53.0	54.2	106	108	70-130	2	20	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

LABORATORY CONTROL SAMPLE & LCSD: 1138282		1138283								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
trans-1,2-Dichloroethene	ug/L	50	54.3	57.3	109	115	70-130	5	20	
trans-1,3-Dichloropropene	ug/L	50	43.5	46.4	87	93	70-130	7	20	
Trichloroethene	ug/L	50	52.9	56.1	106	112	70-130	6	20	
Trichlorofluoromethane	ug/L	50	63.7	66.2	127	132	50-150	4	20	
Vinyl chloride	ug/L	50	67.4	70.7	135	141	65-142	5	20	
Xylene (Total)	ug/L	150	164	170	109	114	70-132	4	20	
4-Bromofluorobenzene (S)	%				103	102	70-130			
Dibromofluoromethane (S)	%				99	101	70-130			
Toluene-d8 (S)	%				99	99	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138284		1138285											
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40112711004 Result	Spike Conc.	Spike Conc.	MS Result								
1,1,1-Trichloroethane	ug/L	<1.0	50	50	54.4	55.8	109	112	70-130	3	20		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	47.7	49.7	95	99	70-130	4	20		
1,1,2-Trichloroethane	ug/L	<1.0	50	50	51.7	52.8	103	106	70-130	2	20		
1,1-Dichloroethane	ug/L	<1.0	50	50	54.5	57.4	109	115	70-134	5	20		
1,1-Dichloroethene	ug/L	<1.0	50	50	54.1	56.0	108	112	70-139	3	20		
1,2-Dibromo-3-chloropropane	ug/L	<5.0	50	50	40.4	41.7	81	83	50-150	3	20		
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	51.7	53.7	103	107	70-130	4	20		
1,2-Dichlorobenzene	ug/L	<1.0	50	50	52.1	53.9	104	108	70-130	3	20		
1,2-Dichloroethane	ug/L	<1.0	50	50	53.9	55.2	108	110	70-132	2	20		
1,2-Dichloropropane	ug/L	<1.0	50	50	51.7	52.6	103	105	70-130	2	20		
1,4-Dichlorobenzene	ug/L	<1.0	50	50	50.9	52.3	102	105	70-130	3	20		
Benzene	ug/L	<1.0	50	50	54.2	56.9	108	114	70-130	5	20		
Bromodichloromethane	ug/L	<1.0	50	50	53.1	53.8	106	108	70-132	1	20		
Bromoform	ug/L	<1.0	50	50	45.4	47.5	91	95	68-130	4	20		
Bromomethane	ug/L	<5.0	50	50	51.0	55.9	102	112	38-141	9	20		
Carbon disulfide	ug/L	<5.0	50	50	62.7	65.4	125	131	70-155	4	20		
Carbon tetrachloride	ug/L	<1.0	50	50	56.8	59.9	114	120	70-130	5	20		
Chlorobenzene	ug/L	<1.0	50	50	52.7	55.9	105	112	70-130	6	20		
Chloroethane	ug/L	<1.0	50	50	62.3	61.4	125	123	66-152	1	20		
Chloroform	ug/L	<5.0	50	50	51.3	55.0	103	110	70-130	7	20		
Chloromethane	ug/L	<1.0	50	50	55.6	62.0	111	124	44-151	11	20		
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	52.1	52.9	104	106	70-130	2	20		
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	46.3	47.1	93	94	70-130	2	20		
Dibromochloromethane	ug/L	<1.0	50	50	49.9	52.0	100	104	70-130	4	20		
Ethylbenzene	ug/L	<1.0	50	50	55.7	57.8	111	116	70-132	4	20		
Methylene Chloride	ug/L	<1.0	50	50	52.1	54.7	104	109	70-130	5	20		
Styrene	ug/L	<1.0	50	50	49.9	53.7	100	107	70-130	7	20		
Tetrachloroethene	ug/L	<1.0	50	50	52.1	55.1	104	110	70-130	6	20		
Toluene	ug/L	<1.0	50	50	53.5	55.7	107	111	70-130	4	20		
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	53.8	57.5	108	115	70-132	7	20		

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**REPORT OF LABORATORY ANALYSIS**

**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138284			1138285			% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		40112711004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	45.1	46.5	90	93	70-130	3	20			
Trichloroethene	ug/L	<1.0	50	50	54.1	54.6	108	109	70-130	1	20			
Trichlorofluoromethane	ug/L	<1.0	50	50	62.1	65.2	124	130	50-153	5	20			
Vinyl chloride	ug/L	<1.0	50	50	64.8	69.7	130	139	60-155	7	20			
Xylene (Total)	ug/L	<3.0	150	150	169	178	112	118	70-132	5	20			
4-Bromofluorobenzene (S)	%						100	103	70-130					
Dibromofluoromethane (S)	%						100	100	70-130					
Toluene-d8 (S)	%						100	101	70-130					

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WET/21713 Analysis Method: SM 2540C  
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

METHOD BLANK: 1140027 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<20.0	20.0	04/10/15 19:09	

LABORATORY CONTROL SAMPLE: 1140028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	559	588	105	80-120	

SAMPLE DUPLICATE: 1140029

Parameter	Units	40112711001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2860	2840	0	10	

SAMPLE DUPLICATE: 1140030

Parameter	Units	40112791005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1710	1700	0	10	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WETA/28056 Analysis Method: EPA 410.4  
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

METHOD BLANK: 1142006 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<50.0	50.0	04/16/15 12:44	

LABORATORY CONTROL SAMPLE: 1142007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	504	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1142008 1142009

Parameter	Units	40112578001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	12800	20000	20000	33000	33200	101	102	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1142010 1142011

Parameter	Units	40112665001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	5240	10000	10000	15600	15400	103	102	90-110	1	10	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WETA/27927 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

METHOD BLANK: 1138226 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.50	0.50	04/08/15 11:24	

LABORATORY CONTROL SAMPLE: 1138227

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.5	2.6	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138228 1138229

Parameter	Units	40112692001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.1	2.5	2.5	3.1	3.0	80	76	80-120	3	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138230 1138231

Parameter	Units	10301421001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.9	2.5	2.5	4.8	4.8	116	115	80-120	1	20	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WETA/5646 Analysis Method: EPA 9020B  
QC Batch Method: EPA 9020B Analysis Description: 9020B W TOX  
Associated Lab Samples: 40112711001

METHOD BLANK: 114360 Matrix: Water  
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Halides	mg/L	<0.020	0.020	04/24/15 10:42	

LABORATORY CONTROL SAMPLE: 114361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Halides	mg/L	.1	0.10	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 114362 114363

Parameter	Units	114362		114363		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40112711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Total Organic Halides	mg/L	0.21	.1	.1	0.29	0.29	85	83	78-116	1	20

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WETA/5675 Analysis Method: EPA 9020B  
QC Batch Method: EPA 9020B Analysis Description: 9020B W TOX  
Associated Lab Samples: 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

METHOD BLANK: 115446 Matrix: Water  
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Halides	mg/L	<0.020	0.020	04/28/15 10:09	

LABORATORY CONTROL SAMPLE: 115447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Halides	mg/L	.1	0.099	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115448 115449

Parameter	Units	115448		115449		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		30145053002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Total Organic Halides	mg/L	0.22	.1	.1	0.32	0.33	95	112	78-116	5	20	

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**QUALITY CONTROL DATA**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

QC Batch: WETA/27936 Analysis Method: EPA 9056  
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

METHOD BLANK: 1138305 Matrix: Water  
Associated Lab Samples: 40112711001, 40112711002, 40112711003, 40112711004, 40112711005, 40112711006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<4.0	4.0	04/07/15 13:09	
Nitrate as N	mg/L	<0.30	0.30	04/07/15 13:09	

LABORATORY CONTROL SAMPLE: 1138306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.0	95	90-110	
Nitrate as N	mg/L	1.5	1.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1138307 1138308

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		40112711002 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Chloride	mg/L	145	200	200	345	345	100	100	90-110	0	20	
Nitrate as N	mg/L	<3.0	15	15	15.1	15.1	101	100	90-110	0	20	

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## QUALIFIERS

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

PASI-N Pace Analytical Services - New Orleans

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D4 Sample was diluted due to the presence of high levels of target analytes.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40112711001	MW-7	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711002	MW-10	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711003	MW-13	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711004	MW-15R	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711005	MW-17R	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711006	FIELD DUPLICATE	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711008	EQUIPMENT BLANK	EPA 3010	MPRP/11716	EPA 6020	ICPM/5419
40112711001	MW-7	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711002	MW-10	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711003	MW-13	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711004	MW-15R	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711005	MW-17R	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711006	FIELD DUPLICATE	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711008	EQUIPMENT BLANK	EPA 7470	MERP/4849	EPA 7470	MERC/6594
40112711001	MW-7	EPA 8260	MSV/28001		
40112711002	MW-10	EPA 8260	MSV/28001		
40112711003	MW-13	EPA 8260	MSV/28001		
40112711004	MW-15R	EPA 8260	MSV/28001		
40112711005	MW-17R	EPA 8260	MSV/28001		
40112711006	FIELD DUPLICATE	EPA 8260	MSV/28001		
40112711007	TRIP BLANK	EPA 8260	MSV/28001		
40112711001	MW-7		PM/		
40112711002	MW-10		PM/		
40112711003	MW-13		PM/		
40112711004	MW-15R		PM/		
40112711005	MW-17R		PM/		
40112711001	MW-7	SM 2540C	WET/21713		
40112711002	MW-10	SM 2540C	WET/21713		
40112711003	MW-13	SM 2540C	WET/21713		
40112711004	MW-15R	SM 2540C	WET/21713		
40112711005	MW-17R	SM 2540C	WET/21713		
40112711006	FIELD DUPLICATE	SM 2540C	WET/21713		
40112711001	MW-7	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711002	MW-10	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711003	MW-13	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711004	MW-15R	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711005	MW-17R	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711006	FIELD DUPLICATE	EPA 410.4	WETA/28056	EPA 410.4	WETA/28065
40112711001	MW-7	SM 5310C	WETA/27927		
40112711002	MW-10	SM 5310C	WETA/27927		
40112711003	MW-13	SM 5310C	WETA/27927		
40112711004	MW-15R	SM 5310C	WETA/27927		
40112711005	MW-17R	SM 5310C	WETA/27927		
40112711006	FIELD DUPLICATE	SM 5310C	WETA/27927		
40112711001	MW-7	EPA 9020B	WETA/5646		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: BLUE RIDGE GW April 2015  
Pace Project No.: 40112711

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40112711002	MW-10	EPA 9020B	WETA/5675		
40112711003	MW-13	EPA 9020B	WETA/5675		
40112711004	MW-15R	EPA 9020B	WETA/5675		
40112711005	MW-17R	EPA 9020B	WETA/5675		
40112711006	FIELD DUPLICATE	EPA 9020B	WETA/5675		
40112711001	MW-7	EPA 9056	WETA/27936		
40112711002	MW-10	EPA 9056	WETA/27936		
40112711003	MW-13	EPA 9056	WETA/27936		
40112711004	MW-15R	EPA 9056	WETA/27936		
40112711005	MW-17R	EPA 9056	WETA/27936		
40112711006	FIELD DUPLICATE	EPA 9056	WETA/27936		
40112711001	MW-7	EPA 9056	WETA/27936		
40112711002	MW-10	EPA 9056	WETA/27936		
40112711003	MW-13	EPA 9056	WETA/27936		
40112711004	MW-15R	EPA 9056	WETA/27936		
40112711005	MW-17R	EPA 9056	WETA/27936		
40112711006	FIELD DUPLICATE	EPA 9056	WETA/27936		

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

*KEW*

4011271

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
ADS Blue Ridge	Report To: Same	Attention: Same
2700 Winchester Road	Copy To: Kari Wallover Cornerstone	Company Name:
Irvine, KY 40336		Address:
Email To: Dan Fleshour	Purchase Order No.:	Pace Quote Reference:
Phone:	Project Name: Blue Ridge GW	Pace Project Manager: Cindy Varga
Requested Due Date/TAT:	Project Number:	Pace Profile #:

REGULATORY AGENCY	
<input type="checkbox"/> NPDES	<input checked="" type="checkbox"/> GROUND WATER
<input type="checkbox"/> UST	<input type="checkbox"/> RCRA
OTHER _____	
SITE	<input type="checkbox"/> GA <input type="checkbox"/> IL <input type="checkbox"/> IN <input type="checkbox"/> MI <input type="checkbox"/> NC
LOCATION	<input type="checkbox"/> OH <input type="checkbox"/> SC <input type="checkbox"/> WI OTHER KY

ITEM #	Section D Required Client Information <b>SAMPLE ID</b> One Character per box. (A-Z, 0-9 / . -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WATER WASTE WATER PRODUCT SOIL-SOLID OIL WIPE AIR OTHER TISSUE	CODE DW WT WW P SL OL WP AP DT TS	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED				SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives			Requested Analytes	Filtered (Y/N)	Pace Project Number Lab I.D.						
						COMPOSITE START		COMPOSITE END/GRAB				UNPRESERVED	HCL	H2SO4				TOC, TOH	COD	TDS, CL, NITRATE	6020 metals	6280 TOCs	Residual Chlorine (Y/N)
						DATE	TIME	DATE	TIME														
01	MW-7	Ph			G	4/16	1125	1450	9	1-125ml bag, 3-40ml				X	X	X	X	X	X	3250mlp	2-50mlp		
02	MW-10					1203	15.61							X	X	X	X	X	X				
03	MW-13					1300	14.16							X	X	X	X	X	X				
04	MW-15R					1230	23.70							X	X	X	X	X	X				
05	MW-17R					1310	14.03							X	X	X	X	X	X				
06	FIELD DUPLICATE					1310			2					X	X	X	X	X	X	2475mlp			
07	TRIP BLANK								1												240mlp		
08	EQUIPMENT BLANK					152															1-25mlp		

**Additional Comments:**  
Return to Pace Green Bay  
6020 metals - sb,as,ba, be,cd,cr,co,cu,fe,pb,ni,se,ag,na,tl,v,zn

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
<i>[Signature]</i>	4/16	1600					Y/N	Y/N	Y/N
<i>[Signature]</i>	4/15	0940	<i>[Signature]</i>	4/15	0940	4,1	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER					
SIGNATURE of SAMPLER					
DATE Signed (MM/DD/YYYY)					

Sample Condition Upon Receipt

Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

**Pace Analytical**  
Client Name: ADS

Project # **WO# : 40112711**

Courier:  Fed Ex  UPS  Client  Pace Other:

Tracking #: 1290E6F32310005006



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

1290E6F32310005015

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR44 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4+1 / Corr: 4+1 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 4-7-15  
Initials: SKW

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>Nitrates</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>4-7-15</u> <u>SKW</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO3 <input checked="" type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4, NaOH+ZnAct ≥ 9, NaOH ≥ 12)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: <u>VOA</u> coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed: <u>SKW</u> Lab Std #/ID of preservative: Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>130733</u>	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 4/7/15