Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 932001C

Site Name SKW Newco Inc.

Site Address: Witmer Road Zip Code: 14305
City/Town: Niagara
County: Niagara
Site Acreage: 9.760

Reporting Period: April 01, 2017 to April 01, 2020

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below?	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

7/30/2020
Date

SITE NO. 932001C **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
130.16-1-10	CC Metals and Alloys, LLC (formerly SKW)	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
130.16-1-10	Cover System Fencing/Access Control

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

7/30/2020
Date

IC CERTIFICATIONS
SITE NO. 932001C

Box 6

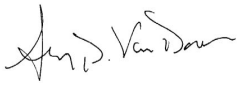
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Guy Van Doren (print name) at 200 Malaga St., St. Augustine, FL 32084 (print business address),

am certifying as Owner's Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.



Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date: 7/30/2020

IC/EC CERTIFICATIONS

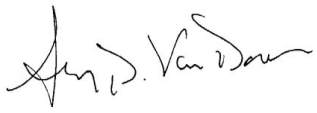
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Guy Van Doren (print name) at 200 Malaga St., St. Augustine, FL 32084 (print business address),

am certifying as a Qualified Environmental Professional for the Owner's Representative (Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		7/30/2020

2020 PERIODIC REVIEW REPORT

CC Metals and Alloys, LLC
Witmer Road
Niagara, New York

Submitted to:

New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2915

Attn: Mr. Michael Hinton

Prepared by:

LAN ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING
ENGINEERING
PLANNING & ZONING

200 Malaga St. • St. Augustine, FL 32084 • Ph: (904) 824-6999 • Fax: (904) 824-0726 • www.lan-fl.com

LAN Ref # 2.3643.19
June 1, 2020

LAN ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING
ENGINEERING
PLANNING & ZONING

PERIODIC REVIEW REPORT (PRR)

FOR
CC METALS AND ALLOYS, LLC
WITMER ROAD

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LAN ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING
ENGINEERING
PLANNING & ZONING

PERIODIC REVIEW REPORT (PRR)

FOR
CC METALS AND ALLOYS, LLC
WITMER ROAD

1.0 EXECUTIVE SUMMARY

A. Provide a brief summary of the site, nature and extent of contamination, and remedial history.

CC Metals and Alloys, Inc. formerly known as SKW Metals and Alloys, Inc. (CCMA or SKW), owns a portion (SKW Property) of the "Vanadium Corporation of America" (Vanadium Site) site No. 932001, which is listed in the New York State Department of Environmental Conservation's (NYSDEC) Registry of Inactive Hazardous Waste Disposal Sites (Registry). A site location map is provided in Figure 1. A map showing the limits of the CCMA Property is provided in Figure 2. The Vanadium site has been divided into 3 operable units (OUs) based on current property ownership. OU #1 is owned by CCMA and consists of a landfill that occupies a part of the northern portion of the property. The landfill consists of Cells No. 1 and No. 2. The landfill was properly closed in 1992-1993 in accordance with NYSDEC regulations and the NYSDEC approved the closure in 1994. The presence of hazardous waste has created significant threats to human health and/or the environment. As noted in the Record of Decision dated March 2006 in the past, portions of the Vanadium site have been used for the disposal of waste from the on-site and off-site manufacturing of specialty steel products. These activities resulted in the disposal of hazardous wastes, containing ferromanganese slag, calcium hydroxide, ferrochromium dust, and ferrochromium silicon dusts. These wastes have contaminated the surface soils, subsurface soils, shallow groundwater, surface water run-off and sediments at the site.

Through conferences with NYSDEC personnel, a plan and scope of work was developed and agreed upon to install an earthen cap to manage and reduce stormwater infiltration on areas surrounding the landfill proper (Cells No. 1 and No. 2). The plan also addressed drainage onto the SKW property from adjoining properties through berm construction, re-grading, and the establishment and fertilization of vegetation in areas surrounding Cells No.1 and No. 2.

B. Effectiveness of the Remedial Program

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the Vanadium site, the NYSDEC selected a No Further Action for OU #1 on March 31, 2006.

1. Progress made during the reporting period toward meeting the remedial objectives for the site

The site continues to meet the remedial objectives through following the monitoring plan (Appendix 1) and implementing the operation and maintenance plan developed for the site. (Appendix 2)

2. The ultimate ability of the remedial program to achieve the remedial objectives for the site

The progress made during the reporting period exemplifies that ability of the remedial program to be successful in the future.

C. Compliance

1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).

The CCMA site did not experience any non-compliance issues from the 2017-2020 calendar years in regards to the (IC/EC) Plan, the Monitoring Plan or the (O&M) Plan.

2. Propose steps to be taken and a schedule to correct any areas of non-compliance.

Not applicable at this time.

D. Recommendations

1. Recommend whether any changes to the SMP are needed

No changes to the SMP are necessary at this time.

2. Recommend any changes to the frequency for submittal of PRRs (increase, decrease)

It is proposed that the submittal of PRRS continue at a frequency of every three years.

2.0 SITE OVERVIEW

A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation

The subject landfill is located on the south side of NY Highway #31, approximately two miles northeast of the intersection of NY Highway #31 and Hyde Park Boulevard in/near Niagara, NY. CCMA, formerly known as SKW Metals and Alloys, Inc., received a NYSDEC Permit to operate the subject solid waste disposal facility in 1980. The landfill consisted of two landfill cells that were designed for the disposal of baghouse dusts from the nearby ferroalloy production plant. According to historical engineering documents, there were two cells known as Cell No. 1 and Cell No. 2 that were permitted under the NYSDEC permit. Cell No. 1 has a 5-foot clay liner with leachate collection system, while Cell No. 2 has a 2-foot clay liner with leachate collection system. Permit #2585 (Appendix 3) issued by NYSDEC provided the closure requirements of this landfill. A closure plan was submitted on January 28, 1988, and was subsequently approved. Since that time, CCMA has been performing the required post-closure monitoring as required by the regulations and set forth in the closure plan.

B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection

In response to the NYSDEC's inclusion of the Vanadium Site on the Registry, CCMA entered into an Order on Consent in 1998 with the NYSDEC, Index No. B9-0470-94-12, a copy of which was attached to and made a part of a Declaration of Covenants and Restrictions which was recorded in the Niagara County's Clerk's Office on July 30, 1998. CCMA undertook remedial measures to address conditions in an area in the southeast portion of the property, which measures included regarding to (i) eliminate off-site surface water runoff from entering the property, (ii) isolate on-site stormwater to prevent contact with underlying soil and groundwater, (iii) create a site drainage system for the property to control stormwater discharge from the property and (iv) eliminate on-site low lying areas where surface water could accumulate. NYSDEC approved the remedial measures completion report in a letter dated January 13, 2000 and the Declaration of Covenants and Restrictions recorded at the Niagara County Clerk Office on July 30, 1998 automatically terminated upon satisfaction of the obligations imposed under the Order on Consent.

3.0 EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

Groundwater monitoring continues to show positive results for the OU#1 site. In 2014,

groundwater monitoring events were adjusted from a semi-annual to annual occurrence. Appendix 4 (Water Quality Analytical Summary) summarizes the results of the groundwater monitoring events from 2012 through 2019. Exceedances are illustrated as bold values in the table.

4.0 DECLARATION OF COVENENT AND RESTRICTIONS

Following the completion of the interim remedial measure a covenant & restriction was developed, approved and filed. This document remains in full force.

5.0 MONITORING PLAN COMPLIANCE REPORT

A. Components of the Monitoring Plan – Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediments, etc.) and by any remedial technologies being used at the site

Provisions have been made for groundwater and surface water monitoring for Cells 1 and 2. Implementation of this program during the facility's post-closure period provides the required data to evaluate the potential effects of Cells 1 and 2 on both the site's ground and surface water. A series of five monitoring wells are utilized to monitor the quality of groundwater contained in the permeable sediments overlying the bedrock. Appendix 4 (Water Quality Analytical Summary) summarizes the results of the groundwater monitoring events from 2012 through 2019. Exceedances are illustrated as being bold values in the table.

B. Summary of Monitoring Completed During Reporting Period – Describe the monitoring tasks actually completed during this PRR reporting period.

Monitoring wells MW-3R, MW-5R, MW-12, MW-BR1, and MW-14N locations are shown on Figure 2. Figure 2 also shows the top-of-casing elevations next to each well, land topography, and surface water drainage patterns. Based on groundwater elevation data obtained from the monitoring wells during the May 2019 monitoring period, groundwater generally flows in the southwest direction across the site (Figure 3). This is consistent with recorded historic groundwater flow patterns. Monitoring well 3R is used to provide up-gradient data, while monitoring wells 5R, 12, BR1, and 14N provide data on groundwater quality downgradient of the site's disposal areas (Cells 1 and 2). Surface water quality is monitored using samples obtained from the site's drainage retention swale. In addition, samples are obtained from the landfill leachate sump (LS-1).

Cell 1 was closed to all waste materials and covered with a minimum of 18 inches of low permeability compacted soil (maximum permeability of 1.0×10^{-7} cm/sec) and 6 inches of soil capable of supporting vegetative growth. It is reported that Cell 2 was similarly closed. Surface water runoff from the closed facilities does not come in contact with the

waste materials previously deposited in Cells 1 and 2. However, as a precaution, surface water samples are taken at the southwest corner of the site, where surface water collects and flows into the stormwater drainage pipe and then offsite to the City of Niagara Falls combined sewer system (sample location SW-1).

Groundwater and surface water analytical samples are collected by Test America Laboratories, Inc. (Test America). Historically, samples have been collected on a semi-annual basis. However, LAN submitted a *Request for Modification of Groundwater Sampling Plan* to the NYSDEC dated October 2013 which requested a change from semi-annual to annual sampling. This request was based on a thorough statistical analysis of historic water quality data collected to that time. In a letter dated March 2014 from the NYSDEC, the requested modification to annual sampling was approved. As such, samples are now analyzed on an annual basis for routine parameters; specific conductivity, temperature, pH, Eh, turbidity, COD, TOC, TDS, SO4, Cl, Br, Pb, Mn, K, and Na. In addition, annual samples are analyzed for baseline parameters; As, Ba, Cr, Cr+6, Hg, Se, and B. Samples are also obtained for Volatile Organic Compounds (VOCs) as specified in the New York State Regulation 6 NYCRR Part 360, §360-2.11(d)(6) Water Quality Analysis Tables, Baseline Parameters list.

The following laboratory analytical methods were utilized: VOCs analyzed via Method 8260C (VOCs by GC/MS); Metals analyzed via method 6010C (ICP); Mercury analyzed via Method 7470A (CVAA); General Chemistry Methods for bromide, chloride, sulfate via Method 300.0, Chemical Oxygen Demand (COD) via Method 410.4, Total Dissolved Solids (TDS) via Method SM 2540C, Hexavalent Chromium-Cr (VI) via Method SM 3500 CR B, and Total Organic Carbon (TOC) via Method SM 5310B. Field parameters such as water temperature, pH, conductivity, turbidity and ORP were measured by the Test America field personnel during the well sampling. The laboratory analytical reports, chain of custodies and field forms for 2017-2019 are included as Appendix 5.

C. Comparisons with Remedial Objectives – Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible

Sodium, TDS, cis-1, 2-Dichloroethene and manganese have historically been detected above standards in several wells on-site. In 2018, there were minor detections of vinyl chloride in wells 12 and 14N above standards. Vinyl chloride has not been commonly detected above standards on-site. A trend analysis was completed for sodium, TDS, cis-1, 2-dichloroethene, and manganese, the COPCs that commonly exceed their standard. These trend analysis graphs have been included as Figure 4, 5, 6, and 7, respectively. This analysis shows that the concentration of cis-1, 2-dichloroethene in wells 12 and 14N have generally decreased from 2012 to 2019. The concentration of manganese, which has only been detected in BR-1 above the standard, has oscillated below and above the standard and does not show a significant increasing trend. The trend analysis shows a slight decrease of approximately <1% in the average concentration of TDS. The largest

increasing trend in concentration of TDS was in the leachate, which could potentially be a result of other factors including rainfall and collection.

The largest trending increase on-site was in sodium, with an average trending increase of 21% between the 2012 and 2019 concentrations. Sodium has been detected above the standard in up-gradient well 3R since 2012. This indicates that sodium concentration could be impacted by an up-gradient source or could be naturally occurring in the area in concentrations above the established standard. Additionally, the well with the most significant increase in sodium concentration was 14N, which is the only well not directly in the groundwater flow path of the landfills. The location of well 14N is downgradient from the adjacent industrial site (Linde), which could potentially impact the well. Sodium concentration will continue to be analyzed thoroughly in the annual water quality reports. It has a generally low health risk and limited potential exposure pathways for human and ecological receptors. There have been no new parameters commonly detected above the established standards, and the majority COPCs that have been identified either have a decreasing or stable trend. Sodium concentrations in some sample locations have shown an insignificant/minor increase. All other parameters listed in Section 5.B remain below the established standards.

D. Monitoring Deficiencies – Describe any ways in which monitoring did not fully comply with the monitoring plan

Annual water quality monitoring during the period from 2017-2019 has remained in compliance with the approved monitoring plan.

E. Conclusions and Recommendations for Changes – Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness

Overall, there have been no significant changes in water quality since the start of monitoring. A summary of groundwater quality data for the since the beginning of monitoring, is provided in Appendix 4.

6.0 OPERATION & MAINTENANCE (O&M) PLAN COMPLIANCE REPORT

A. Components of O&M Plan – Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.

LAN is responsible for conducting and filing a Waste Management Facility Maintenance Inspection Report. The inspection report consists of a checklist, which covers the following annual evaluation.

- Bank and cover erosion
- Settlement

- Cover soil integrity
- Condition of vegetative cover
- Condition of monitoring wells
- Site security

If items are encountered during the inspections that are of significant environmental concern, necessary corrective actions are undertaken as expeditiously as possible. Notices of these actions, if necessary, are reported to the NYSDEC explaining the nature and location of the problem and the corrective action taken.

B. Summary of O&M Completed During Reporting Period – Describe the O&M tasks actually completed during this PRR reporting period

The required annual inspection was conducted by a representative of LAN on the following dates:

- November 4, 2017
- October 4, 2018
- November 4, 2019

A copy of the most recent (2019) inspection checklist is included as Appendix 6. Photographic documentation from each of the previous three inspections is included respectively as Appendix 7. The following is a synopsis of the findings of the inspection.

- Prior to the inspection, the area had been mowed on 10/23/2019 and 10/24/2019. No large subsidence was noted; however, recent rain events lead to some standing water on the property. The site had approximately 4”-6” of standing water in some grass areas.
- There were no washouts or other disturbances observed. The vegetation cover was in good condition and consists primarily of grasses, which are in good condition. There are a few trees that have intertwined to the fencing, which will be addressed with the removal of old dilapidated fencing No evidence of erosion or impact to the site was noted during the inspection.
- The monitoring wells were inspected. They are all in good condition.
- Drainage control valve was inspected. It is in good condition. The pipe structure is in good condition, however, the sandbags protecting the valve are falling apart and need to be replaced
- The drainage for the overall site is in excellent condition. Prior to the inspection there had been significant rainfall, and there was limited to no standing water in low spots around the property.
- The piping which is used for interconnecting the various drainage swales and storage impoundment areas was all in good condition
- The fences were all inspected. The fencing dividing the property from Imerys on the

western section of the property has been damaged in multiple spots, and the gate was not locked. The front fence of the property (NW) is old and rusted, the gate was locked and in working condition.

- Three sections of fence have been repaired and replaced by Fox Fence, and a new lock on the gate that divides Imerys property from the Witmer property. Section 1 along the NW section of the property was repaired. The northern boundary fence had broken poles and down barbed wire which was replaced. Additionally, the section along Imerys was replaced where it was bent and broken.

C. Evaluation of Remedial Systems – Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected

The remedial system continues to meet the O&M requirements to perform as designed.

D. O&M Deficiencies – Identify any deficiencies in complying with the O&M plan during this PRR reporting period

No deficiencies were identified during the PRR reporting year.

E. Conclusions and Recommendations for Improvements – Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan

All required post-closure activities for the 2019 year have been conducted. Items of concern discovered during the annual site inspection were noted and appropriate corrective actions were implemented. Continued annual post-closure monitoring and inspections will be conducted to ensure the landfill is functioning as designed, and does not pose a threat to humans and/or the environment.

7.0 OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS

A. Compliance with SMP – For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;

1. Whether all requirements of each plan were met during the reporting period

All requirements made by the Monitoring and O&M plans were met during the reporting period.

2. Any requirements not met

Not applicable.

3. Proposed plans and a schedule for coming into full compliance

OU#1 is currently in full compliance and scheduled accordingly.

B. Performance and Effectiveness of the Remedy – Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site

All components of the SMP including the IC/EC, monitoring, and OMM plans are working as designed. The engineering controls implemented have reduced pooling of water on-site and enhanced the conveyance of stormwater, as indicated in the annual inspection reports. Annual monitoring of water quality on-site indicates that the monitoring parameters are generally decreasing or stable since the establishment of the SMP. The monitoring locations, efforts, and interval are effective in protecting environmental resources (soil, groundwater, and surface water). The OMM plan is actively used to improve and maintain site features and controls necessary for post closure operation.

FIGURES 1-7

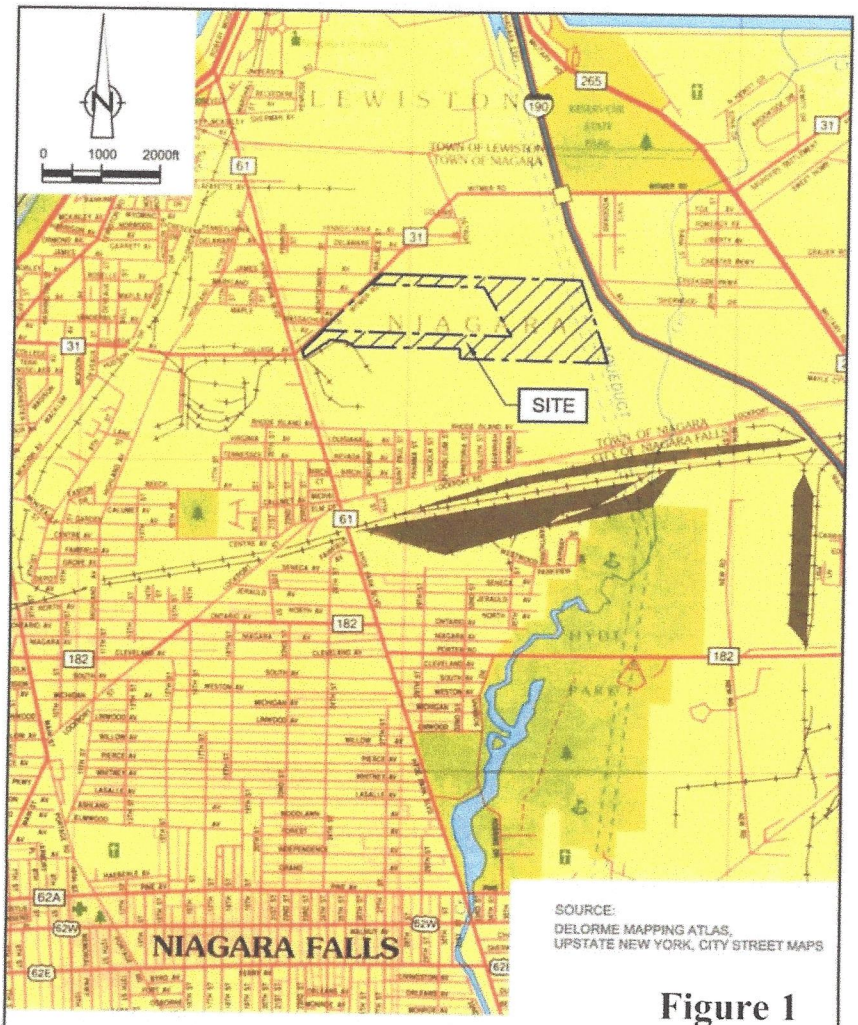


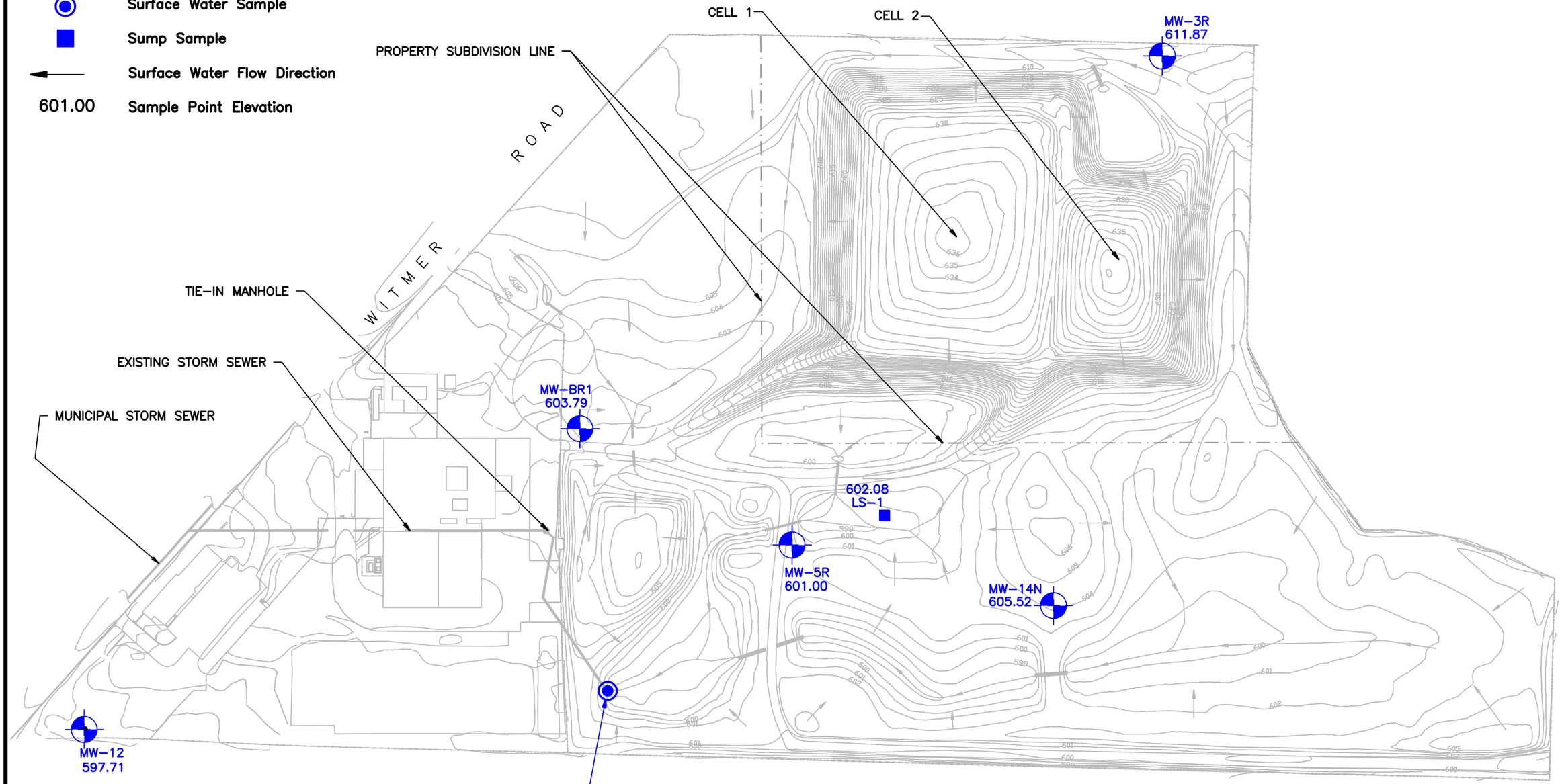
Figure 1

SITE LOCATION
PHASE III AND IV - RI/FS
VANADIUM CORPORATION OF AMERICA SITE
Niagara Falls, NY

19867-00(004)GN-WA001 OCT 31/2005

LEGEND:

- MW-5R — Monitoring Well
- Surface Water Sample
- Sump Sample
- Surface Water Flow Direction
- 601.00 — Sample Point Elevation



GRAPHIC SCALE

75 0 37.5 75 150 300

(IN FEET)
1 inch = 150 ft.

DATE: 1/12/15
REV:
CHECKED : KEH
DRAWN : MJC
SCALE : 1"=150'

SITE PLAN

Calvert City Metals and Alloys, LLC (Witmer Road Landfill)
4201 Witmer Road
Niagara Falls, NY 14305

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING
88 RIBERIA ST., SUITE 400, ST AUGUSTINE, FL 32084 (904)824-6999

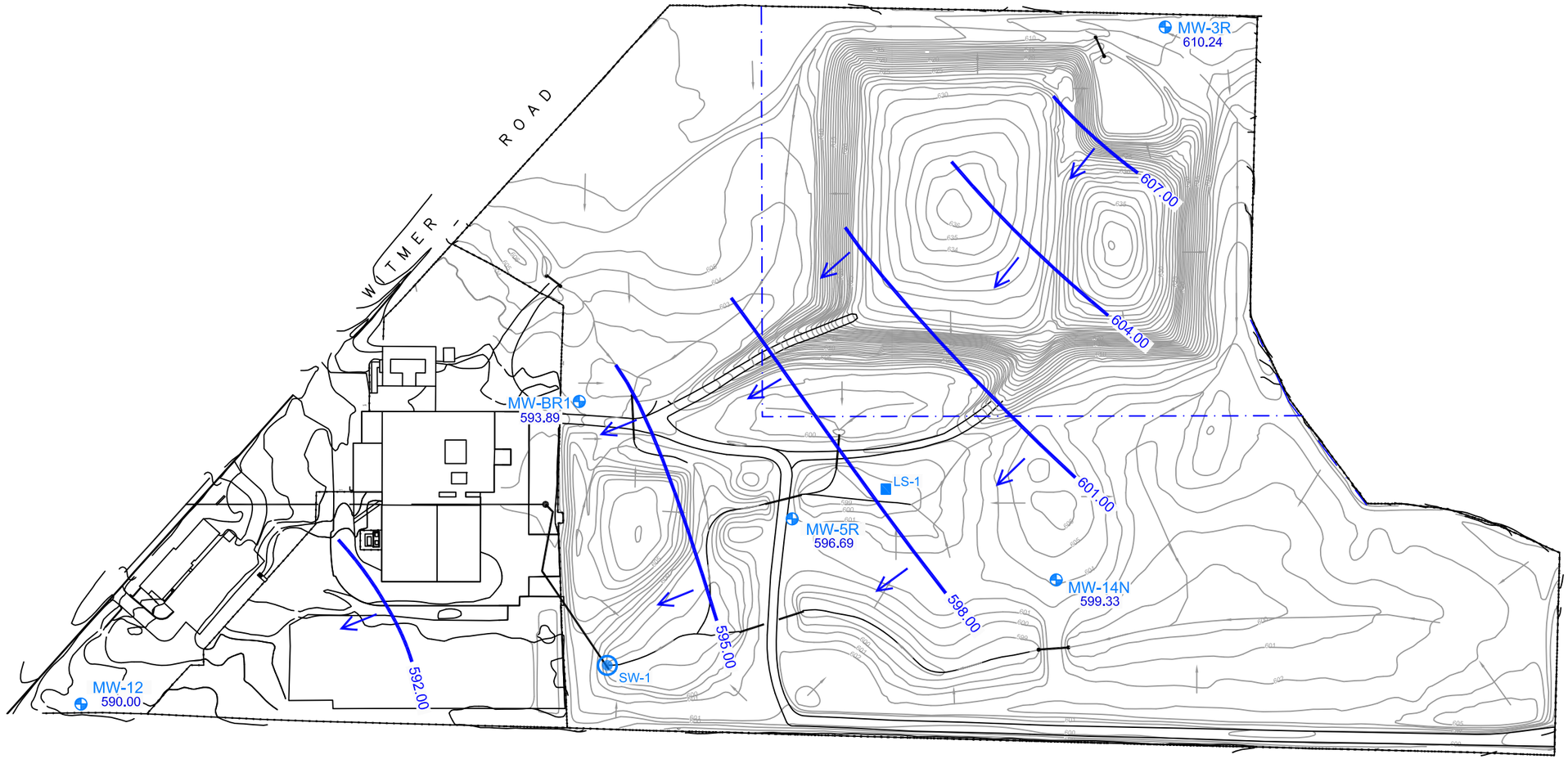
FIGURE: 2

JOB NO. 2.3643.17

S:\Drawings\2-3600's\2-3643-17 MM - Witmer Road\CAD\site_plan_1312

LEGEND:

- MW-00 — MONITORING WELL
- SURFACE WATER SAMPLE
- SUMP SAMPLE
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- 594.28 — GROUNDWATER ELEVATION
- (595.00) — GROUNDWATER CONTOUR INTERVAL
- GROUNDWATER CONTOUR



SCALE
0 90 180
(IN FEET)

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING
88 RIBERIA STREET, SUITE 400 ST. AUGUSTINE, FL 32084-3684 (904)824-6999

GROUNDWATER FLOW DIRECTION

CALVERT CITY METALS AND ALLOYS, LLC
PO BOX 217, HIGHWAY 95
CALVERT CITY, KENTUCKY 42029

Figure: 3

Job No.:
2-3643-19 PERIODIC REVIEW

CREATION DATE: 06/05/19
REVISION DATE: 05/08/20

Figure 4 – Sodium Trend Analysis

Sodium (mg/L)								
Date	**Well 14N**	**Well 3R**	**Well 5R**	**Well 12**	**Leachate**	**BR-1**	**SW-1**	**STD**
10/18/2012	67.6	30.5	75.3	70.9	66.5	38.1	DRY	20
4/26/2013	63.8	23.8	75.1	75.5	72.8	39.9	17.5	20.0
10/25/2013	73.9	29.0	88.5	77.5	47.2	37.3	13.3	20.0
5/13/2014	57.8	24.1	68.5	61.6	45.1	37.0	19.1	20.0
4/23/2015	58.2	22.2	67.7	58.3	40.6	30.9	19	20.0
4/28/1946	68.8	23.8	70.3	77.7	74.0	36.2	19	20.0
4/27/2017	75.6	25.4	68.3	75.6	73.7	38.3	16.5	20.0
5/11/2018	103	37.3	77.1	94	68	41	DRY	20.0
5/8, 9, 17/2019	113	42.1	81.4	88.9	112	52.1	23.6	20.0
Class GA Standard		20						

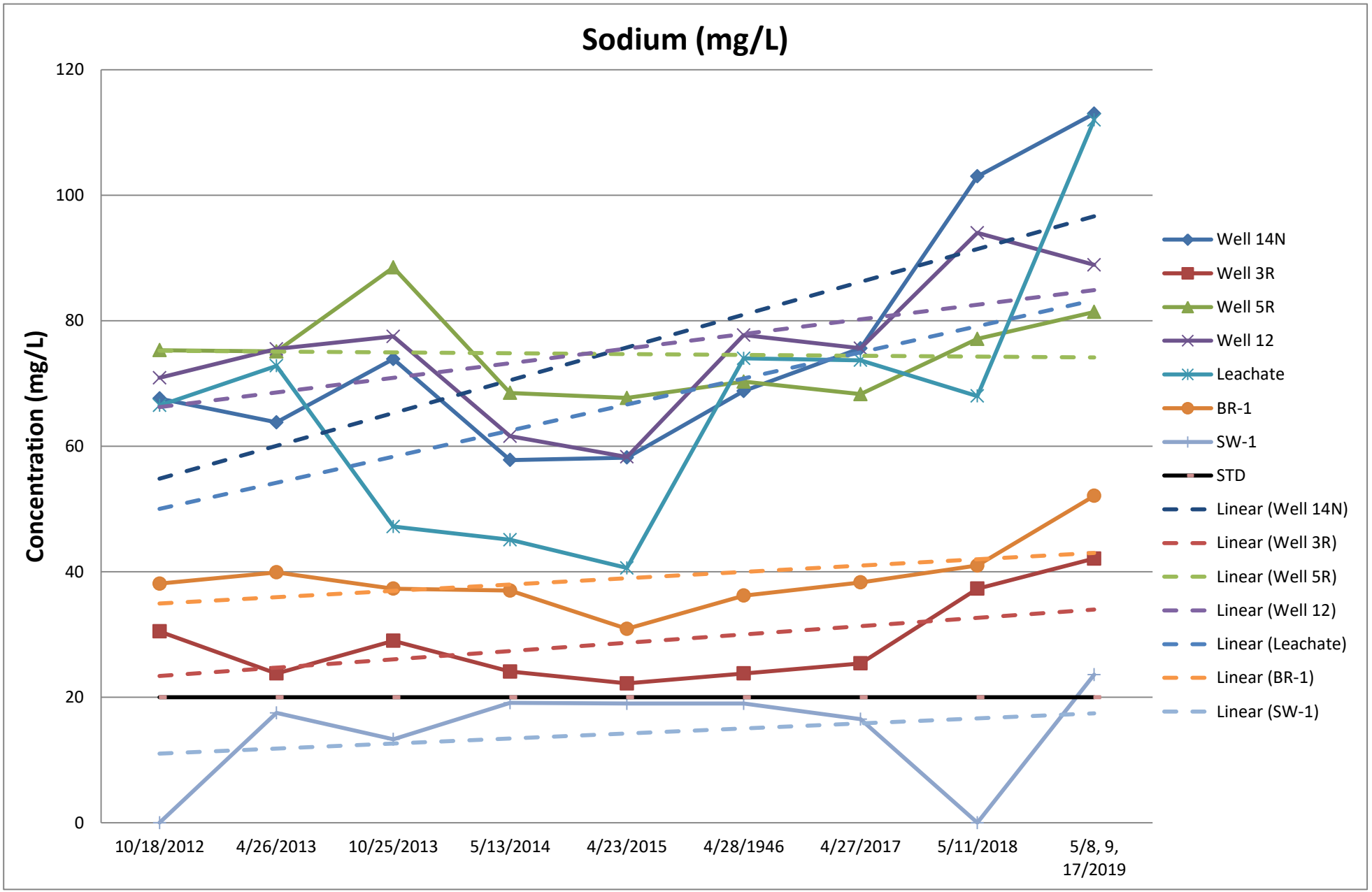

Sodium (mg/L)
Concentration (mg/L)
120
100
80
60
40
20
0
10/18/2012
4/26/2013
10/25/2013
5/13/2014
4/23/2015
4/28/1946
4/27/2017
5/11/2018
5/8, 9, 17/2019
Well 14N
Well 3R
Well 5R
Well 12
Leachate
BR-1
SW-1
STD
Linear (Well 14N)
Linear (Well 3R)
Linear (Well 5R)
Linear (Well 12)
Linear (Leachate)
Linear (BR-1)
Linear (SW-1)

Figure 5 – Total Dissolved Solids Trend Analysis

Total Dissolved Solids (mg/L)								
Date	**Well 14N**	**Well 3R**	**Well 5R**	**Well 12**	**Leachate**	**BR-1**	**SW-1**	**STD**
10/18/2012	877	802	629	805	834.0	329	DRY	500
4/26/2013	857	702	552	829	778	364	366	500
10/25/2013	829	735	587	727	443	288	281	500
5/13/2014	837	731	545	854	480	385	311	500
4/23/2015	809	749	490	755	456	267	300	500
4/28/2016	844	669	531	774	681	271	300	500
4/27/2017	885	669	531	723	781	309	390	500
5/11/2018	956	838	554	818	648	325	DRY	500
9/17/2019	948	761	544	886	1030	372	384	500

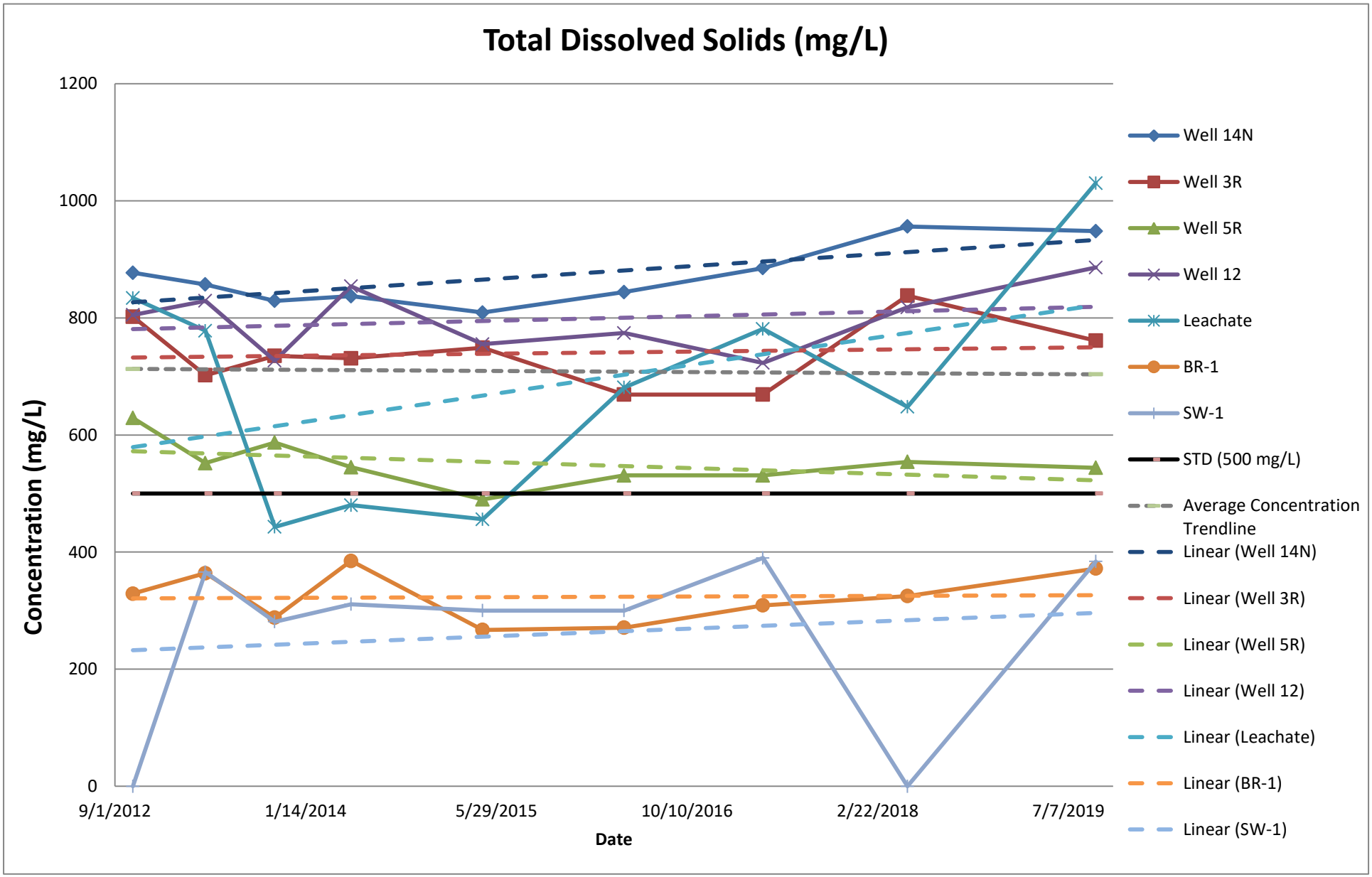

Total Dissolved Solids (mg/L)
Concentration (mg/L)
1200
1000
800
600
400
200
0
9/1/2012
1/14/2014
5/29/2015
10/10/2016
2/22/2018
7/7/2019
Date
Well 14N
Well 3R
Well 5R
Well 12
Leachate
BR-1
SW-1
STD (500 mg/L)
Average Concentration Trendline
Linear (Well 14N)
Linear (Well 3R)
Linear (Well 5R)
Linear (Well 12)
Linear (Leachate)
Linear (BR-1)
Linear (SW-1)

Figure 6 – cis-1, 2-Dichloroethene Trend Analysis

cis -1,2 - Dichloroethene (µg/L)								
Date	**Well 14N**	**Well 3R**	**Well 5R**	**Well 12**	**Leachate**	**BR-1**	**SW-1**	**STD**
4/26/2013	28	1.0	1.0	2.1	1.0	1.0	1.0	5.0
10/25/2013	29	1.0	1.0	5.5	1.0	1.0	1.0	5.0
5/13/2014	28	1.0	1.0	2.9	1.0	1.0	1.0	5.0
4/23/2015	28	1.0	1.0	3.3	1.0	1.0	1.0	5.0
4/28/2016	21	1.0	1.0	2.0	1.0	1.0	1.0	5.0
4/27/2017	24	1.0	1.0	1.0	1.0	1.0	1.0	5.0
5/11/2018	25	1.0	1.0	1.0	1.0	1.0	1.0	5.0
9/17/2019	20	1.0	1.0	1.0	1.0	1.0	1.0	5.0
Class GA Standard	5							

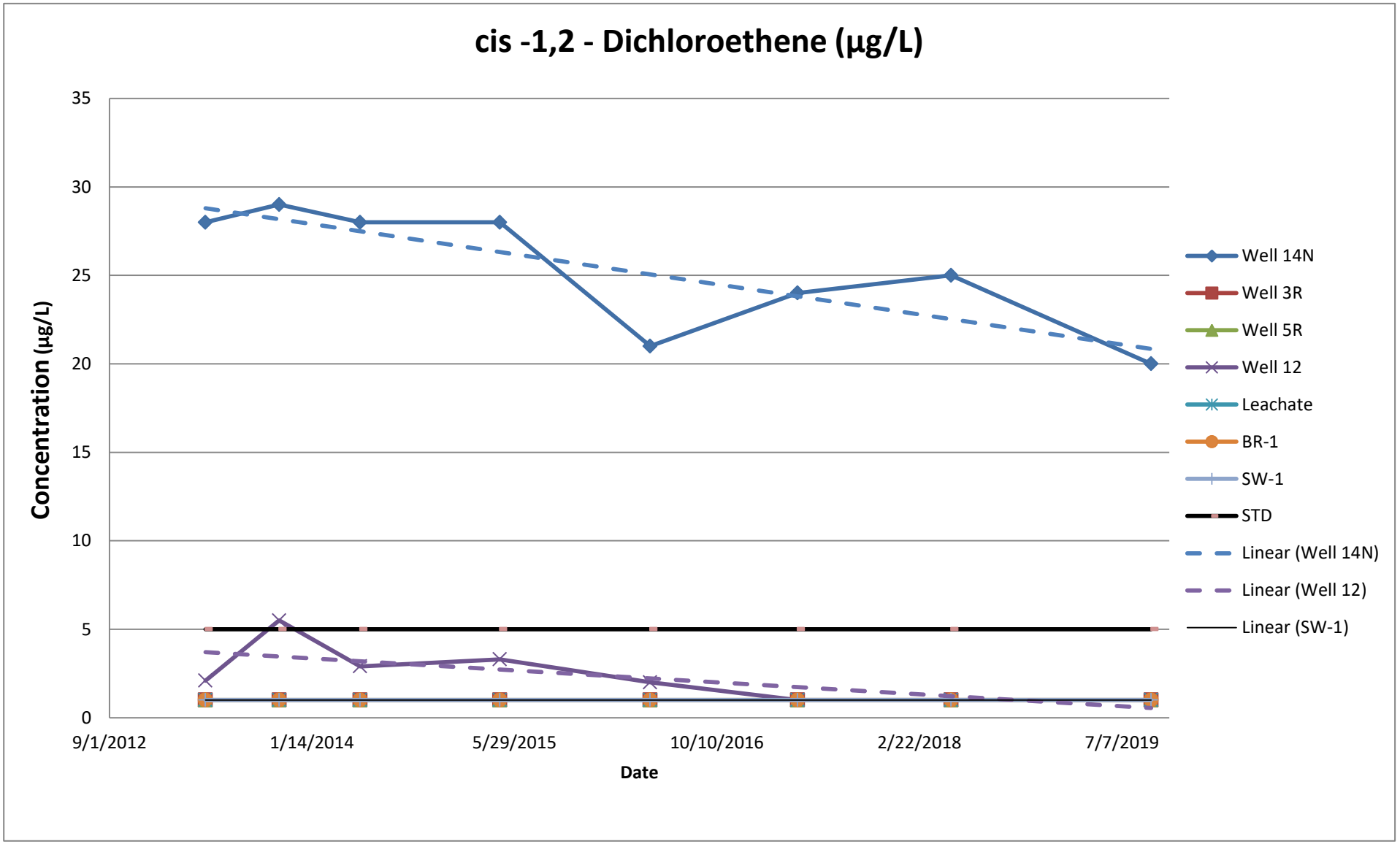
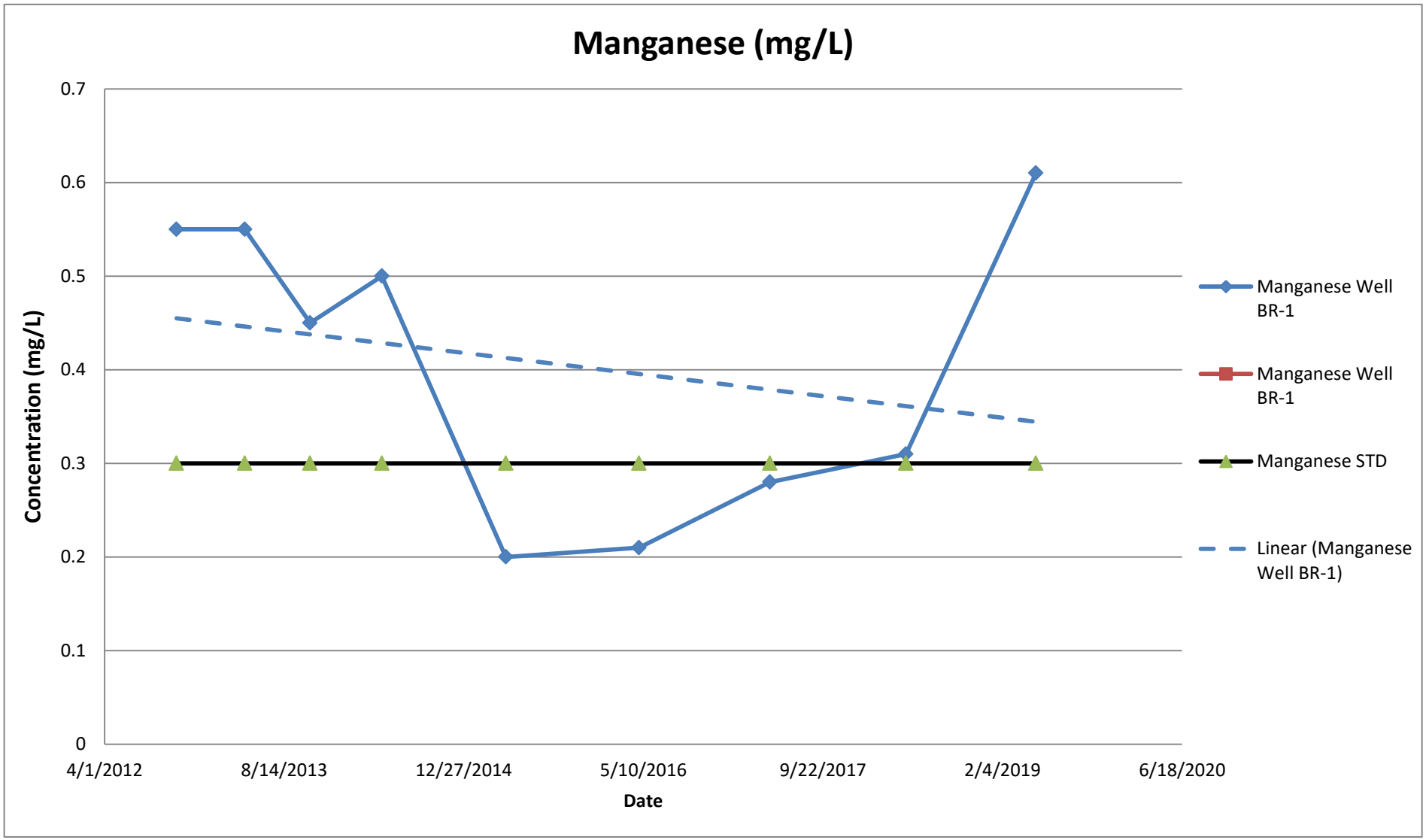

cis -1,2 - Dichloroethene (µg/L)
Concentration (µg/L)
35
30
25
20
15
10
5
0
9/1/2012
1/14/2014
5/29/2015
10/10/2016
2/22/2018
7/7/2019
Date
Well 14N
Well 3R
Well 5R
Well 12
Leachate
BR-1
SW-1
STD
Linear (Well 14N)
Linear (Well 12)
Linear (SW-1)

Figure 7 – Manganese Trend Analysis

Manganese		
Date	**Well BR-1**	**STD**
10/18/2012	0.55	0.3
4/26/2013	0.55	0.3
10/25/2013	0.45	0.3
5/13/2014	0.50	0.3
4/23/2015	0.20	0.3
4/28/2016	0.21	0.3
4/27/2017	0.28	0.3
5/11/2018	0.31	0.3
5/8/2019	0.61	0.3


Manganese (mg/L)
Concentration (mg/L)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
Date
Manganese Well BR-1
Manganese Well BR-1
Manganese STD
Linear (Manganese Well BR-1)

APPENDIX 1

Modified Groundwater Monitoring Plan

New York State Department of Environmental Conservation
Division of Materials Management, Region 9
270 Michigan Avenue, Buffalo, New York 14203-2915
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.ny.gov

Joe Martens
Commissioner

March 11, 2014

Mr. Guy D. VanDoren, P.E.
President
LAN Associates, Inc.
88 Riberia Street, Suite 400
St. Augustine, Florida 32084

Dear Mr. VanDoren:

CC Metals and Alloys
#32N04

The Divisions of Materials Management and Remediation have reviewed the document "Request for Modification of Groundwater Sampling Plan" submitted with your letter dated November 5, 2013 prepared on behalf of CC Metals and Alloys for its closed landfill on Witmer Road in the town of Niagara. This document requested a reduction in monitoring frequency from semi-annual to annual, and provided supporting information for the request.

Both Divisions agree that based on the data presented, this request can be granted. Therefore, annual sampling will be required in 2014 and subsequent years, unless the annual sampling data indicates any issues which would warrant a return to semi-annual sampling.

If you have any questions, please contact this office at (716) 851-7220.

Sincerely,

Mary E. McIntosh, C.P.G.
Engineering Geologist 2

MEM/ed

cc: Mr. Dennis Weiss, Regional Materials Management Engineer
Mr. Michael Hinton, Division of Environmental Remediation
Mr. David Matthews, LAN Associates
Mr. Edward Bredniak, CC Metals and Alloys

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

November 5, 2013

VIA UPS GROUND

Ms. Mary McIntosh, C.P.G.
Engineering Geologist II
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Subject: CC Metals and Alloys, LLC
Witmer Road Solid Waste
Management Facility
LAN Ref. #2.3643.17

Dear Ms. McIntosh:

Per your telephone conversation with Dave Matthews of LAN Associates, Inc. (LAN), on behalf of CC Metals and Alloys, LLC (CCMA), enclosed is one original report of the *Request for Modification of Groundwater Sampling Plan*, for your review and approval.

If you have any questions after reviewing this report, please do not hesitate to contact me directly at (904) 824-6999.

Very truly yours,

Guy D. VanDoren, P.E.
President

GVD:kk
2.3643.17-L-NYSDEC-GWPlanMod Req-131105-gvd

Enclosure: Request for Modification of Groundwater Sampling Plan dated 10/30/2013

Copies to: Mr. Gary Joiner, Plant Manager, CCMA

CC Metals and Alloys, LLC
1542 N. Main Street
Calvert City, KY 42029

REQUEST FOR MODIFICATION
OF
GROUNDWATER SAMPLING PLAN
OCTOBER 2013

WITMER ROAD SOLID WASTE MANAGEMENT FACILITY
Niagara, NY

Submitted to:

New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Attention:
Ms. Mary McIntosh, C.P.G.
Engineering Geologist II

Prepared by:

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

88 Riberia Street, Suite 400 • St. Augustine, FL 32084
Ph: (904) 824-6999 • Fax: (904) 824-0726 • www.lan-fl.com

LAN Ref. #2.3643.17
October 30, 2013

REQUEST FOR MODIFICATION
OF
GROUNDWATER SAMPLING PLAN
OCTOBER 2013

CC Metals and Alloys, LLC
Witmer Road Solid Waste Management Facility
Niagara, NY

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LIST OF APPENDICES

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

REQUEST FOR MODIFICATION OF GROUNDWATER SAMPLING PLAN OCTOBER 2013

CC Metals and Alloys, LLC
Witmer Road Solid Waste Management Facility
Niagara, NY

1.0 INTRODUCTION

The following report is submitted to the New York State Department of Environmental Conservation (NYSDEC) by LAN Associates, Inc. (LAN), on behalf of CC Metals and Alloys, LLC (CCMA), as a request to modify the groundwater sampling plan for the Witmer Road Solid Waste Management Facility Permit #2585 (Appendix A). This report is submitted in compliance with NYSDEC regulations Chapter 4, Part 360-2.11(c)(5)(iv)(c), Chapter 4, Part 360-2.15(k)(4).

CCMA has been collecting data in accordance with the facility's groundwater sampling plan. The data collection began in 1991, to monitor the condition of the groundwater at the Witmer Road site. In 1998, CCMA implemented interim remedial measures (IRM) to reduce stormwater infiltration and remove potentially deleterious material from the site. In 2004, the collected data was analyzed by LAN to determine the effectiveness of the IRM. Based on this analysis, a request for modification was submitted to NYSDEC which recommended removing certain parameters from the sampling plan and reducing the frequency of measurements. The recommendations were accepted by NYSDEC. The sampling frequency was changed from quarterly to semi-annually, and the following parameters were omitted from future sampling events:

Parameters

Alkalinity	Color, True	Phenols
Aluminum	Copper	Silver
Ammonia	Total Cyanide	Thallium
Antimony	Hardness	Vanadium
Beryllium	Iron	Zinc
Cadmium	Magnesium	Biological Oxygen Demand
Calcium	Nickel	Sol Hexavalent Chromium
Cobalt	Nitrate	Total Kjeldahl Nitrogen

The modified sampling plan has been implemented since 2004. Recently, LAN performed an analysis of the data to determine if a second request for modification is warranted. This report contains an analysis of the data collected from 1991 through 2012, and concludes by recommending that CCMA submit a request for modification to reduce the frequency of measurements from semi-annual to annual. Justification for this request is provided herein.

2.0 SITE DESCRIPTION/HISTORY

The subject landfill is located on the south side of New York Highway 31, approximately two miles northeast of the intersection of New York Highway 31 and Hyde Park Boulevard in/near Niagara, New York. CCMA, formerly known as SKW Metals and Alloys, Inc., received a NYSDEC Permit to operate the solid waste disposal facility in 1980. The landfill consisted of two landfill cells designed for the disposal of baghouse dust from the nearby ferroalloy production plant. According to historical engineering documents, there were two cells known as Cell No. 1 and Cell No. 2, which were permitted under the NYSDEC permit. Cell No. 1 has a five-foot clay liner with leachate collection system, while Cell No. 2 has a two-foot clay liner with leachate collection system. Permit #2585 issued by NYSDEC provided the closure requirements of this landfill. A closure plan was submitted on January 28, 1988, and was subsequently approved. Since that time, CCMA has been performing the required post-closure monitoring as required by the regulations and set forth in the closure plan.

In 1997, SKW and LAN submitted a report to NYSDEC entitled *Remedial Investigation and Recommended Interim Remedial Measures for SKW Metals and Alloys, Witmer Road Property*. In this report and the conferences with NYSDEC personnel that followed, a scope of work was agreed upon to perform the following tasks:

1. Remove industrial and other wastes from the areas surrounding, and to the south of, the landfill cells;

2. Re-grade the area surrounding, and to the south of, the landfill cells for effective stormwater drainage; and

3. Cover the re-graded areas with clay to reduce permeability.

Since the monitoring program began, many upgradient well and leachate sump parameters have steadily decreased, and began converging with those of the upgradient well. Parameters which have New York state effluent groundwater maximum allowable concentrations[1] (NY-MACs) have shown fewer, if not the absence of, contraventions of these values since the closure was approved. The statistical analyses in Section 4.0 demonstrate that, while the IRM did not aim to mitigate landfill pollution, it has resulted in reduced groundwater contamination and contributed to the improvement of the environmental integrity of the landfill.

A previous request for modification was written in 2004. Based on a statistical analysis of the parameter measurements which compared the pre-IRM period to the post-IRM period, LAN recommended that various parameters be removed from the program and the frequency of measurements be changed from quarterly to annually. Twenty-four of the requested parameter removals (all of them except for those of boron and total organic

[1] [1] 6 NYCRR Part 703.6 Table 3

content) were accepted, and the monitoring frequency was changed to semi-annual rather than annual. Since the 2004 request for modification, measurements have shown that many parameters have continued to stabilize and remain at levels below those of the pre-IRM period. Section 5.0 statistical analysis justifies the current recommendation to change the monitoring frequency from semi-annual to annual.

3.0 GROUNDWATER MONITORING/FLOW/HYDROGEOLOGY

A robust record of groundwater elevation data confirms the upgradient and downgradient status of each well. A review of groundwater elevation data indicates a hydrogeological flow gradient from northeast (upgradient) to southwest (downgradient). The record indicates no groundwater flow reversals. A site plan with groundwater elevations is attached from a former baseline monitoring report to show representative groundwater flow during the period of record (Appendix B).

Four existing wells and a landfill leachate sump have been used to monitor groundwater conditions at the subject landfill since 2004. Well 3R is hydrogeologically upgradient, Well 5R is hydrogeologically downgradient. Well 14N is laterally downgradient, and Well 12 is the furthest downgradient.

Since 2004, additional measurements have been taken at a downgradient bedrock well – indicated as Well BR1 – as well as at a surface water location which has a downgradient orientation with respect to Well 3R.

4.0 STATISTICAL ANALYSIS OVERVIEW

Currently, each parameter is measured twice per year. A statistical analysis has been performed to determine if parameter measurements have continued to stabilize and remain below pre-IRM levels. The analysis for Wells 3R, 5R, 14N, 12, and the leachate sump included:

- Comparing arithmetic means, arithmetic standard deviations, medians, and geometric means of each parameter between the following periods
    - Pre-IRM period: 1991 through 1998
    - Post-IRM period, pre-Report[2]: 1999 through May, 2004
    - Post-IRM period, post-Report: September, 2004, through present
    - Post-IRM period: 1999 through present
    - Overall period: 1991 through present
- Graphically comparing upgradient well measurements to downgradient well measurements
- Comparing well measurements to NY-MACs
- Comparing ranges of arithmetic mean (+/- standard deviation) between parameters to test for significant difference; if the ranges overlapped, the data sets were not considered to be significantly different

[2] Refers to the previous request for modification report, which considered data up until May of 2004.

- Considering measurements that were below the detection limit

Surface water and Well BR1 measurements were not taken before the IRM period. Therefore, LAN was unable to compare pre-IRM levels to post-IRM levels at these measurement locations. Consequently, the analysis of the surface water and Well BR1 parameter measurements consisted solely of:

- Analyzing data trends
- Comparing bedrock measurements to upgradient well measurements and corresponding NY-MACs
- Comparing surface water measurements to NYSDEC water quality standards[3]

For each parameter discussed in this report, three graphical representations of the data are presented in Appendix C:

- Comparison of leachate and downgradient well measurements to upgradient well measurements
- Comparison of bedrock well measurements to upgradient well measurements
- Surface water measurement data

All results which were non-detect (i.e. below the detection limit[4]) are shown on the graphs as the detection limits themselves. The tables containing the statistical values and arithmetic mean (+/- standard deviation) for wells with pre-IRM data and leachate are included in Appendix D.

5.0 PARAMETER SPECIFIC ANALYSIS

The parameters analyzed in the following table were chosen because they best represent the extent to which the IRM results in reduced groundwater contamination and contributed to the improvement of the environmental integrity of the area. The parameters omitted from this report have also shown some degree of declination, but not as much as the included parameters (e.g. boron and chemical oxygen demand have shown an overall decrease since the IRM, but have been slightly trending up since 2009 and 2011, respectively). Some of the omitted parameters, while showing overall decreases, still yield significantly higher measurements in the downgradient wells than in the upgradient well.

[3] 6 NYCRR Part 703.5 Table 1 for Class C surface water

[4] The detection limit is the value below which the instrument of measurement is unable to detect the analyte. A reporting limit is the detection limit multiplied by a greater-than-one factor; this limit is the threshold below which a measurement is detected but not believed by the measurer to be reasonably accurate.

Parameter Analysis

Parameter	NY-MAC	Analysis
Arsenic	0.05 mg/L	- No wells have ever shown contraventions of the NY-MAC - Most measurements have been well below the NY-MAC, sometimes by as much as an order of magnitude - Most measurement results have been below the detection limit - No significant difference between arsenic content of the downgradient and upgradient wells - Bed rock measurements are similar to upgradient well measurements (below detection limit and well-below NY-MAC) - Surface water measurements are also roughly one order of magnitude lower than the water quality standard
Barium	2.0 mg/L	- No wells have ever shown contraventions of the NY-MAC - Graphical representation shows that most measurements have been well below the NY-MAC - No measurement has ever exceeded 0.2 mg/L, which is an order of magnitude below the NY-MAC - No significant difference between barium content of the upgradient and most downgradient wells - Bedrock measurements show slightly higher results than those of the upgradient well, but still remain about an order of magnitude lower than the NY-MAC - No water quality standard for surface water concentrations of barium, but measurements show a decreasing trend
Lead	0.05 mg/L	- Historically, there have been two contraventions of the limit: • One occurred in 1999, and the other occurred in 2000 (however, this measurement was below the detection limit, and the detection limit was greater than the NY-MAC) - Many lead measurements have been below the detection limit - Graphical representation of the data shows that downgradient and upgradient well measurements have converged and remained well below the NY-MAC - Since the previous request for modification, no measurements have exceeded 0.005 mg/L, which is an order of magnitude below the NY-MAC - No significant difference between upgradient and downgradient well measurements - Bedrock measurements are similar to upgradient well measurements (below detection limit and well below NY-MAC) - Surface water measurements were below the water quality standard* and have also been below the detection limit

Parameter Analysis (Cont'd)

Parameter	NY-MAC	Analysis
Mercury	0.0014 mg/L	- No wells have ever shown contraventions of the NY-MAC - Most measurements have been below detection limit - Graphical representation of data shows that measurements have converged and been well below the NY-MAC - Since the IRM period, all measurements have been below 40 percent of the NY-MAC - No significant difference between upgradient and downgradient well measurements - The six well curves overlapping indicate mercury measurements have always been below detection limit - Surface water measurements and bedrock well measurements have also resulted in non-detect
Specific Conductance	N/A	- Graphical representation of data shows that upgradient and downgradient well measurements have converged - Since the IRM period, data has also shown a decrease in specific conductance over all wells - Bedrock measurements have also shown a converging trend with upgradient well measurements - Surface water measurements show a decreasing trend (no water quality standard)
Sulfate	500 mg/L	- There have been no contraventions of the limit since 1995 (before the IRM period) - Since the IRM period itself, sulfate measurements have dropped to mostly below 50 percent of the NY-MAC - No significant difference between downgradient and upgradient well measurements - Measurements also show lower levels of sulfate in the bedrock than in the upgradient well - Surface water measurements indicate a decreasing trend of sulfates (no water quality standard) - Sulfate is also a good chemical indicator for the oxyanion-ligand group, indicating that concentration of that group is also decreasing and stabilizing with time
Turbidity	N/A	- Since the IRM period, measurement results for upgradient and downgradient wells have converged - Downgradient well measurements are not significantly different than upgradient well measurements - Bedrock measurements have also shown a converging trend with upgradient well measurements - Surface water measurements show a decreasing trend (no water quality standard)

Parameter Analysis (Cont'd)

Parameter	NY-MAC	Analysis
Chloride	500 mg/L	- No contraventions of the NY-MAC since 1992 - Since the IRM period, all measurements have been below 250 mg/L, 50 percent of the NY-MAC - Bedrock measurements have also shown a converging trend with upgradient well measurements - Surface water measurements show a decreasing trend (no water quality standard)
Elemental Chromium	N/A	- Downgradient well measurements are not significantly different than upgradient well measurements - Measurements from the leachate still seem, graphically, to be fluctuating significantly - Bedrock measurements have been lower than those of upgradient well - Surface water measurements have shown a decreasing trend - Surface water measurements are below water quality standard*
pH	Upper: 8.5 Lower: 6.5	- Before the IRM period, there have been 15 contraventions of the limits since 1991: • Between the IRM period and the previous request for modification, there were seven contraventions • No contraventions since previous request for modification • Measurement of 17.0 made on September 22, 2009, was thrown out as an outlier. - Trends indicate that pH has become more steady and consistent - Bedrock measurements have shown zero contraventions of pH limits - Surface water measurements indicate one contravention in 2007
Total Dissolved Solids		- Since the IRM period, there have been two contraventions of the NY-MAC: • One was in 2002, and the other was in 2003, both before previous request for modification. • No contraventions have occurred since 2003 - All downgradient well measurements, except for those from Well 12, are not significantly different than upgradient well measurements - Bedrock measurements show lower levels of total dissolved solids than those of the upgradient well - Surface water measurements show two contraventions of the water quality standard: • One in 2004, and one in 2011

* The water quality standard for surface water is only available for 2004, because this value fluctuates depending on the measurement of hardness, and hardness measurements ceased after 2004.

5.1 ADDITIONAL NOTES ON CHLORIDES

Graphically, the measurements seem to be converging. However, downgradient wells are still significantly higher than upgradient wells. While this warrants further data gathering, measurements have been declining and have been relatively consistent since the IRM period.

Chlorides are the best chemical indicators for the compact, non-metallic, and halogen anions, and are commonly used as a tracer or first indicator of breakthrough for dissolved constituents in porous media. The fact that chloride levels have been decreasing and stabilizing over the past 20 years demonstrates the success of the IRM program.

6.0 SUMMARY AND CONCLUSION

Interim remedial measures implemented in 1998, were conducted to mitigate the potential contamination in surrounding groundwater from the general site, which had been a metal processing area. Since the IRM was completed, many parameter concentrations have dropped and stabilized; downgradient well measurements have converged with those of upgradient wells; and there has been a 78 percent decrease in the frequency of contraventions of the NY-MACs. Since 2004, based on NYSDEC's approval of LAN's previous request for modification, parameters have been measured semi-annually instead of the quarterly frequency that was required before that time. Since the 2004 modification request, parameters have either continued to decrease or have shown continued stabilization. While there are some parameters that have not converged (upgradient concentrations equaling downgradient concentrations), there are no parameters that have shown discontinuous results. Therefore, the semi-annual sampling does not give further understanding of the site conditions than annual. For these reasons, annual sampling is recommended for the current parameters.

7.0 SAMPLING PLAN RECOMMENDATIONS

Parameter graphs show a clear trend toward convergence of parameter concentrations over wells (upgradient and downgradient), and stability of parameter concentration over the period of record. As such, LAN and CCMA recommend that the frequency of analysis be reduced from semi-annual year to annual.

APPENDIX A

SKW HISTORICAL WASTE MANAGEMENT PERMIT NO. 2585

23269.5

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

2585

EXPIRATION DATE
October 31, 1984

EFFECTIVE DATE - October 20, 19

[X] CONSTRUCTION [X] INITIAL ISSUE [ ] REISSUANCE
[X] OPERATION [ ] RENEWAL [ ] MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
KW ALLOYS, INC.	3801 Highland Avenue, Niagara Falls, NY 14305	716/285-1252

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Niagara	Niagara	Region 9 Headquarters 600 Delaware Avenue, Buffalo, NY 14202

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Construct and Operate SKW Alloys, Inc. Landfill #2	William Lozow

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

1. Your application for a variance from 6NYCRR Part 360.8(b) (exemption from daily cover) is hereby approved. In the event that the deposited ferro silicon sludges become dried and create a fugitive dust problem, either on or off site, steps shall be taken to remedy the situation.

2. Upon the filling of the landfill, two feet of cover material shall be applied to the surface of the landfill. The top 6 inches shall be of a soil suitable for sustaining a vegetative cover crop to avoid erosion.

3. Quarterly reports shall be submitted indicating the volume of material which has been placed into the landfill and shall be submitted on the first business day of the months of November, February, May and August.

4. Semi-annual reports shall be submitted to the Region 9 Office containing the analytical results of the monitoring well sampling program and surface water sampling program as included in the permit for Landfill #1.

5. Within 60 days of the effective date of this permit, a certificate of deposit, bond or other negotiable instrument, payable to the Commissioner of the NYS Department of Environmental Conservation, shall be forwarded to this Region 9 Office in the amount of $5,000 to cover costs of closure and monitoring. The life of this undertaking shall be for the permit life (October 31, 1984).

6. The issuance of this permit does not relieve the applicant from the compliance with other State, Federal or local laws, ordinances or regulations.

7. Prior to the expiration date of this permit, the landfill shall be properly closed and maintained to prevent adverse environmental health impacts, such as contravention of surface or groundwater quality standards, gas migration, odors, and vectors. Proper

(CONT'D)

ISSUE DATE	ISSUING OFFICER	SIGNATURE
2 OCT 84	Robert J. Mitrey, P.E.	X Robert J. Mitrey, P.E.

SKW ALLOYS, INC.
3801 Highland Avenue
Niagara Falls, NY 14305

Permit to Construct and
Operate - Permit #2585
Expiration Date - 10/31/84
Facility #32N04

SPECIAL CONDITIONS (cont'd)

7. closure includes covering with a minimum of 2 feet of final cover, establishment of a grass cover crop, and sufficient grading to divert water off the fill area in order to minimize infiltration and to preclude ponding.

Robert H. Mettey, P.E. #4
Permit Administrator

20 Oct 84
Date

New York State Department of Environmental Conservation
584 Delaware Avenue, Buffalo, New York 14202

Robert F. Flacke
Commissioner

May 30, 1980

Mr. LeRoy C. Wintersteen, Manager
Environmental Control
SKW Alloys, Inc.
P.O. Box 368
Niagara Falls, NY 14302

Re: Permit to Operate
Solid Waste Management Facilities
Permit No. 2133
Niagara (T), Niagara County

Dear Mr. Wintersteen:

This will acknowledge receipt of the Certification of Construction and "As Built" drawings for the above facility. These materials are accepted for record purposes and are included in our files on the project.

We are transmitting herewith Permit No. 2133, Permit to Operate the Solid Waste Management Facility. The permit contains special conditions which require monitoring, record keeping, and reporting which should be followed, as well as the other conditions in the permit.

If you have any questions pertaining to the permit, the operation of the facility or the monitoring and reporting requirements, please do not hesitate to contact the writer or Mr. Tygert at 716/842-4311.

Very truly yours,

Robert J. Mitrey, P.E.
Associate Sanitary Engineer

JST:sk

cc: Niagara County Health Dept.
Secured Landfill Contractors, Inc.
Mr. Richard Snyder, P.E.
Albany, Division of Solid Waste

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

FACILITY NO.	2133
EXPIRATION DATE	May 30, 1985

☐ CONSTRUCTION ☒ INITIAL ISSUE ☐ REISSUANCE
☒ OPERATION ☐ RENEWAL ☐ MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
SKW Alloys, Inc.	P.O. Box 368, Niagara Falls, NY 14302	716/285-1252

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Niagara	Niagara	Buffalo (9)

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Solid Waste Management Facility	[illegible], Mgr. Env. Control

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice of intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

Page 1 of 2

1. That this permit is not transferable and is subject to revocation in the event of violation of this Permit, of the provisions of the Environmental Conservation Law, Article 27, Part 360 of the Rules and Regulations of the Department (6NYCRR 360) or for violation of any other Rules and Regulations of the State of New York or other governmental bodies. This approval does not relieve the permittee of the responsibility of complying with local zoning, building or other laws, rules and regulations or ordinances.
2. That present monitoring wells and surface water monitoring locations shall be sampled on a quarterly basis starting [illegible], 1985, and continuing for one year after closure of the operating permit for the parameters listed in the engineering report, and submitted to the Department within thirty (30) days thereafter.
3. That after one year of operation samples shall be collected and analyzed on a six (6) month basis (April & October) with results submitted within thirty days of sampling.
4. That elevations of the water levels in the monitoring wells shall be recorded at the time of sampling and reported with the sample results.
5. That the elevation of [illegible] in the [illegible] shall be recorded monthly and reported on a quarterly basis with the above results, and shall be continued for at least one year after closure of the landfill.
6. That a minimum of eighteen (18) inches of compacted clay and six (6) inches of soil capable of supporting a vegetative cover [illegible] placed [illegible] upon completion. A certificate of construction [illegible] shall be submitted within thirty days of the completion of the landfill.

ISSUE DATE	ISSUING OFFICER	SIGNATURE
[illegible]	[illegible], Director, [illegible]	[signature]

REGIONAL OFFICE

7. That only the materials described in the approved engineering report, prepared by Richard R. Snyder, P.E., dated June 18, 1979, and approved ammendments thereto, be placed in the facility.

8. That daily records of the quantity of waste material placed in the facility be maintained, and that an annual summary be submitted to this office on the anniversary date of this permit. The summary should include the total quantity of wastes disposed of and an estimate of the remaining life and/or volume of the facility.

NOTICE OF PERMIT

for:

[ ] CONSTRUCTION	[X] INITIAL ISSUE	[ ] REISSUANCE
[X] OPERATION	[ ] RENEWAL	[ ] MODIFICATION

has been issued to: SKW Alloys, Inc.

address: P.O. Box 368, Niagara Falls, New York, 14302

for a project described as: Solid Waste Management Facility

under the Environmental Conservation Law,
Article 27, Title 5, Part 360 (Solid Waste Management Facilities)

NOTE:

- This Notice of Permit must be posted on the project site in such a manner that it is protected from weather and is in a location readily visible to the public.
- A copy of the Permit with the general and special conditions noted thereon will be shown to anyone upon request.

New York State
Department of Environmental Conservation

47-12-2 (8/77)

Issuing Officer

584 Delaware Avenue, Buffalo, New York, 14202
Address

2133	5/30/80	5/30/83
Permit No.	Issue Date	Expiration Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

FACILITY NO. 2585

EXPIRATION DATE October 21, 1984

EFFECTIVE DATE – October 20, 1981

[X] CONSTRUCTION [X] INITIAL ISSUE [ ] REISSUANCE

[X] OPERATION [ ] RENEWAL [ ] MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
SKW ALLOYS, INC.	[illegible] Avenue, Niagara Falls, NY 14302	[illegible]

LOCATION OF PROJECT		Environmental Conservation Regional Office
Town Niagara	County Niagara	Region 9 Headquarters, 600 Delaware Avenue, Buffalo, NY 14202

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Construct and Operate SKW Alloys, Inc. Landfill #2	William Lazow

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice of intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.

2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.

3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.

4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.

5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.

6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

[illegible]

JUN – 2 2003

SPECIAL CONDITIONS

1. Your application for a variance from 6NYCRR Part 360.8(b) (exemption from daily cover) is hereby approved. In the event that the deposited ferro silicon sludges become dried and create a fugitive dust problem, either on or off site, steps shall be taken to remedy the situation.

2. Upon the filling of the landfill, two feet of cover material shall be applied to the surface of the landfill. The top 6 inches shall be of a soil suitable for sustaining a vegetative cover crop to avoid erosion.

3. Quarterly reports shall be submitted indicating the volume of material which has been placed into the landfill and shall be submitted on the first business day of the months of November, February, May and August.

4. Semi-annual reports shall be submitted to the Region 9 Office containing the analytical results of the monitoring well sampling program and surface water sampling program as included in the permit for Landfill #1.

5. Within 60 days of the effective date of this permit, a certificate of deposit, bond or other negotiable instrument, payable to the Commissioner of the NYS Department of Environmental Conservation, shall be forwarded to this Region 9 Office in the amount of $5,000 to cover costs of closure and monitoring. The life of this undertaking shall be for the permit life (October 21, 1984).

6. The issuance of this permit does not relieve the applicant from the [illegible] all other State, Federal or local laws, ordinances or regulations.

7. Prior to the expiration date of this permit, the landfill [illegible] maintained to prevent adverse environmental health impacts, such as contravention of surface or groundwater quality standards, [illegible]

ISSUE DATE	ISSUING OFFICER	SIGNATURE
[illegible]	[illegible]	[illegible]

REGIONAL OFFICE

SKW ALLOYS, INC.
3801 Highland Avenue
agara Falls, NY 14305

Permit to Construct and
Operate - Permit #2585
Expiration Date - 10/31/84
Facility #32N04

SPECIAL CONDITIONS (cont'd)

7. closure includes covering with a minimum of 2 feet of final cover, establishment of a grass cover crop, and sufficient grading to divert water off the fill area in order to minimize infiltration and to preclude ponding.

Robert H Mettey, P.E. #4
Permit Administrator

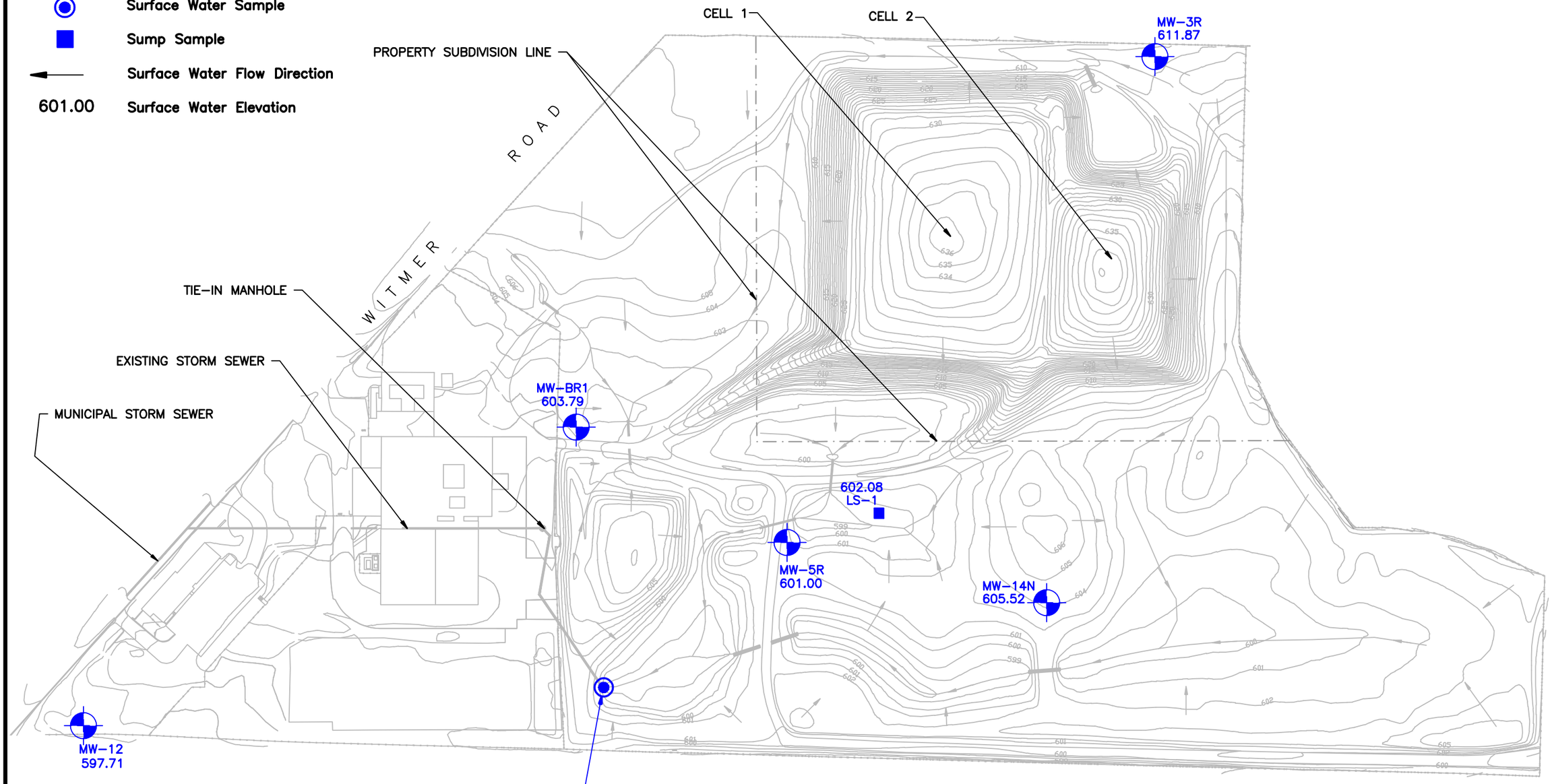
20 Oct '84
Date

APPENDIX B

SITE PLAN

LEGEND:

- MW-5R — Monitoring Well
- Surface Water Sample
- Sump Sample
- Surface Water Flow Direction
- 601.00 — Surface Water Elevation



GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150 ft.

DATE: 05/08/12
REV:
CHECKED : KEH
DRAWN : GRS
SCALE : 1"=150'

WELL LOCATION & SURFACE WATER DRAINAGE MAP

Calvert City Metals and Alloys, LLC
PO Box 217, Highway 95
Calvert City, Kentucky 42029

LAN ASSOCIATES, INC.
CONSULTING•ENGINEERING•PLANNING
88 RIBERIA ST., SUITE 400, ST.AUGUSTINE, FL 32084 (904)824-6999

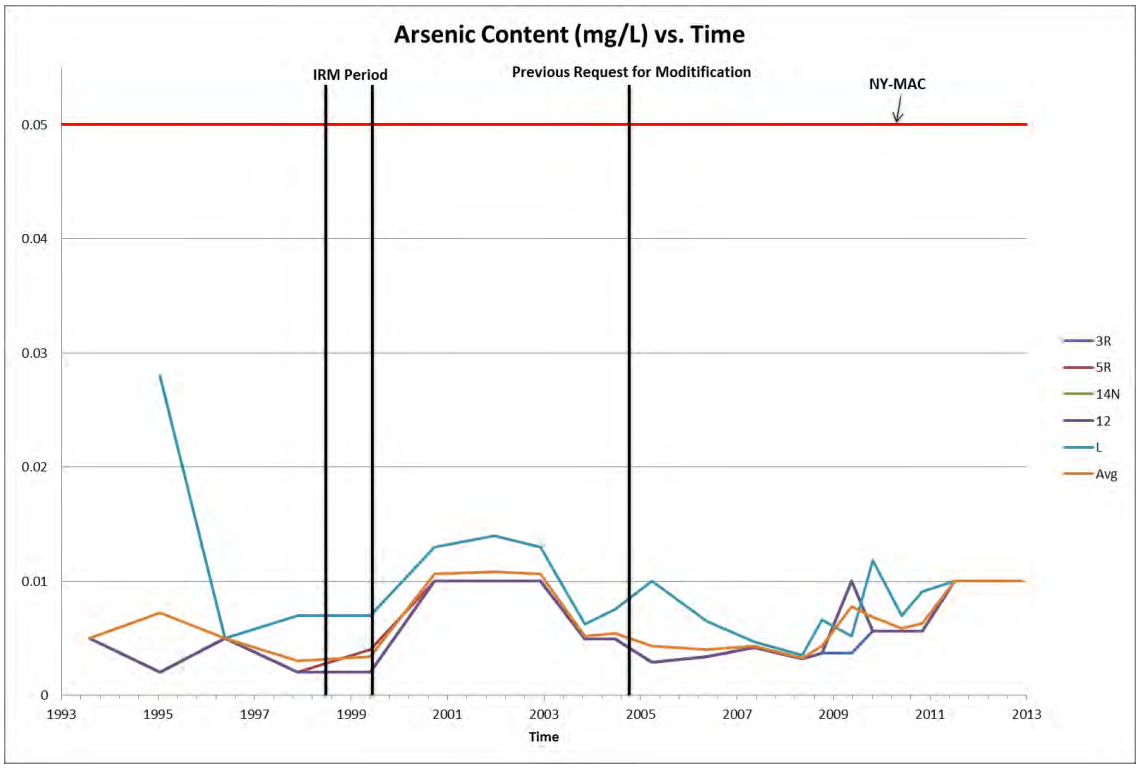
ATTACHMENT: 4

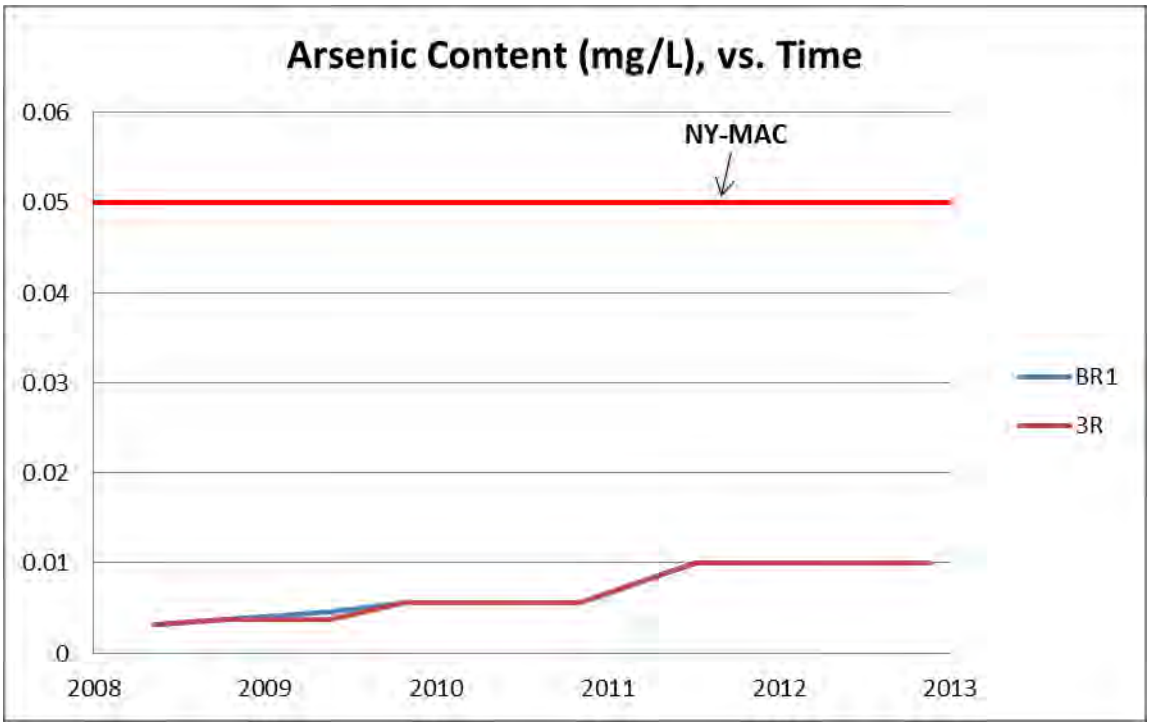
JOB NO. 2.3643.17

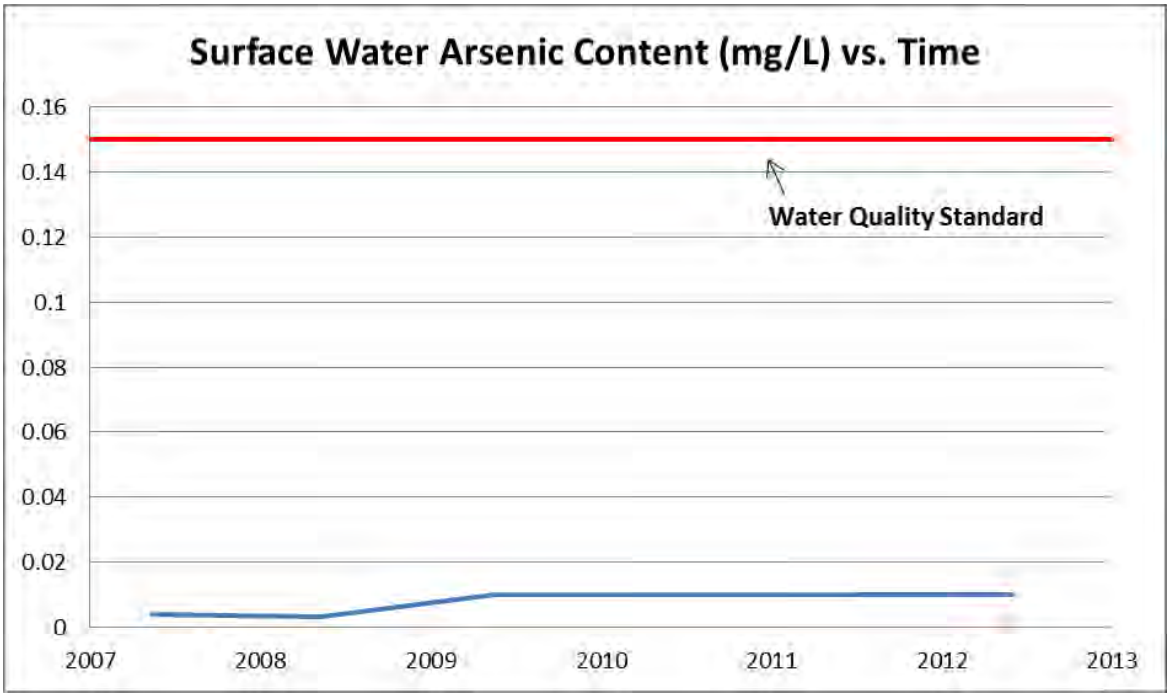
APPENDIX C

GRAPHICAL REPRESENTATIONS OF HISTORICAL DATA

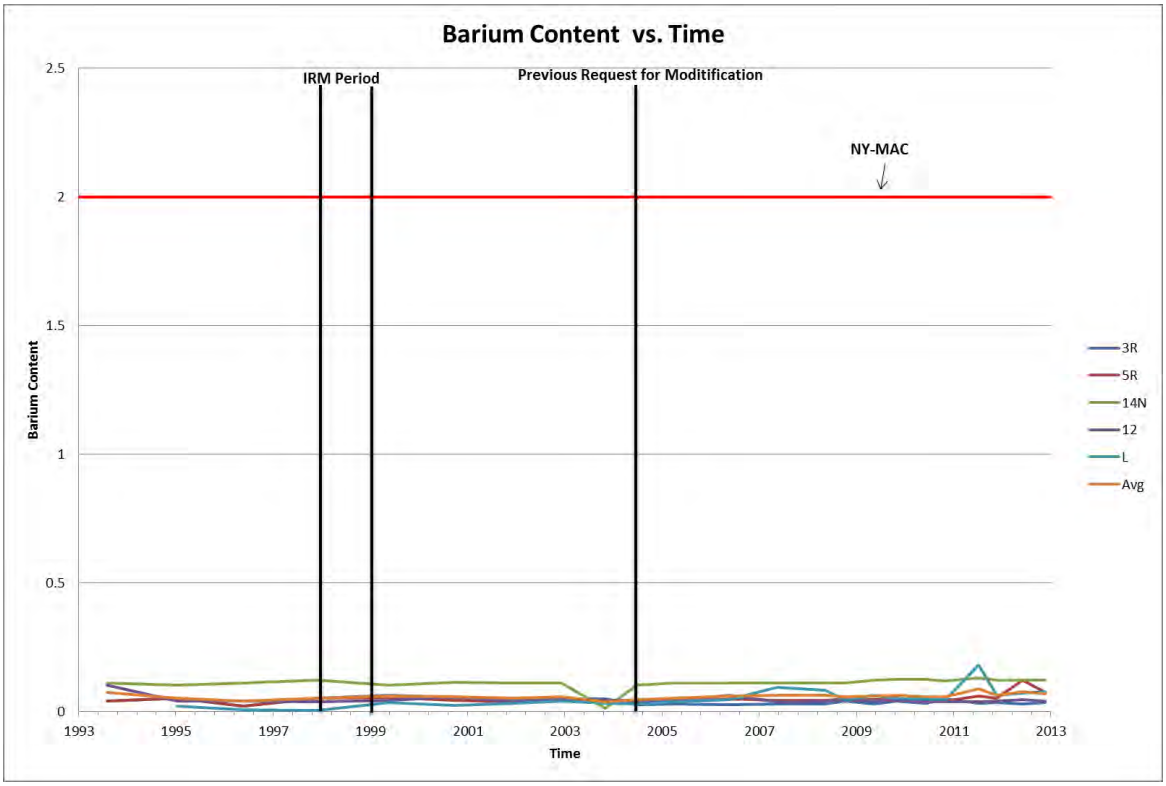
Arsenic Content (mg/L)

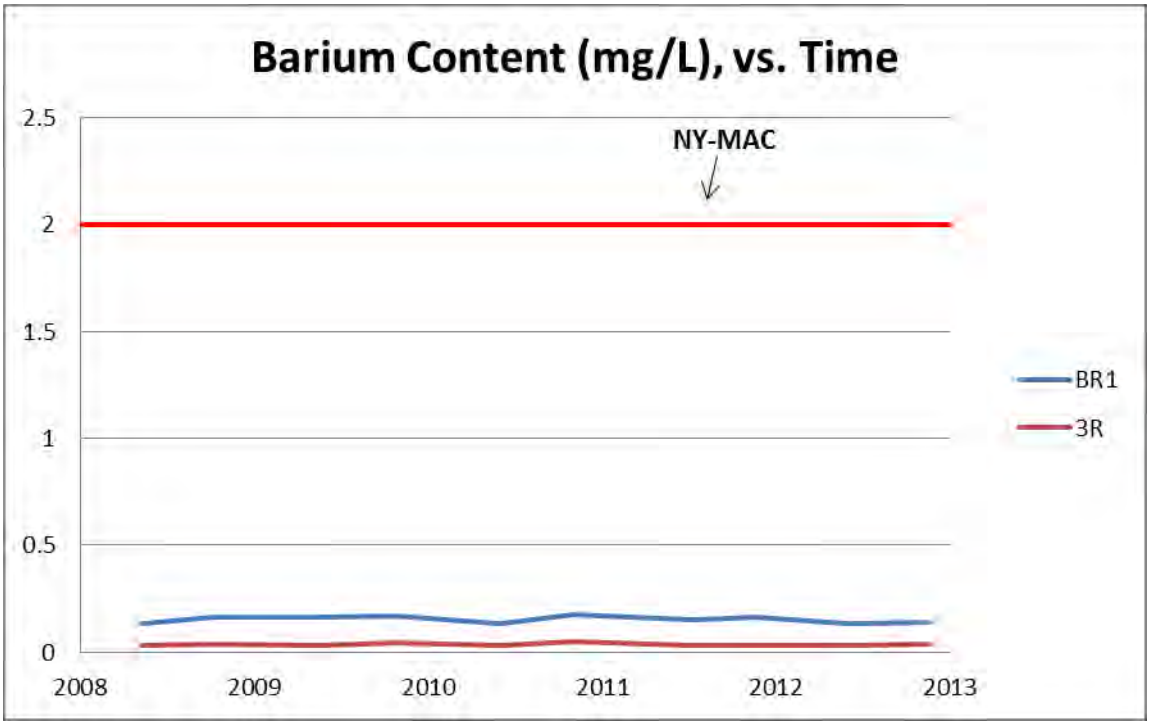


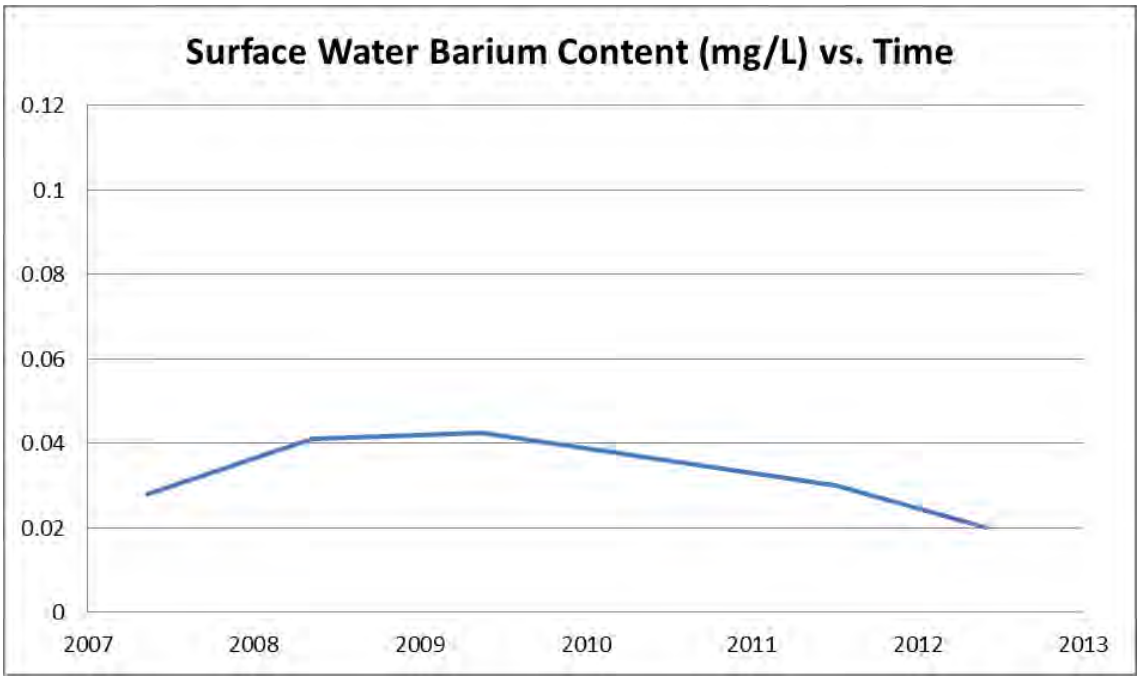




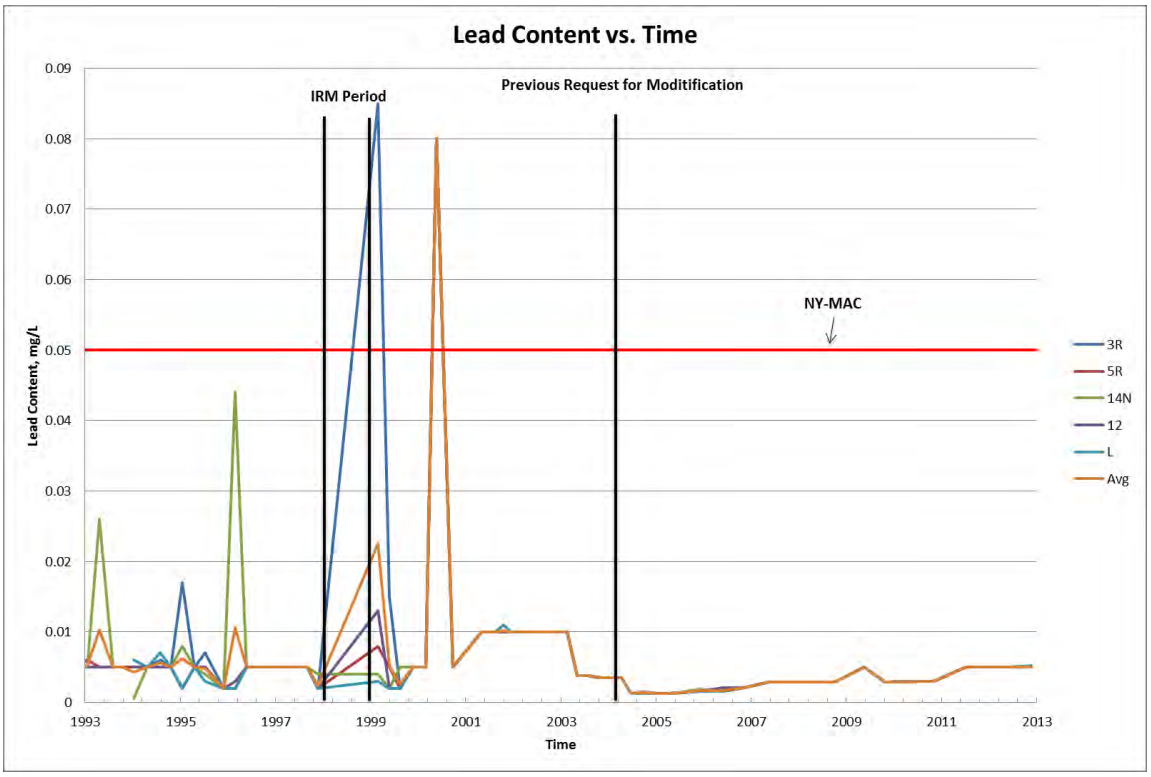
Barium Content (mg/L)

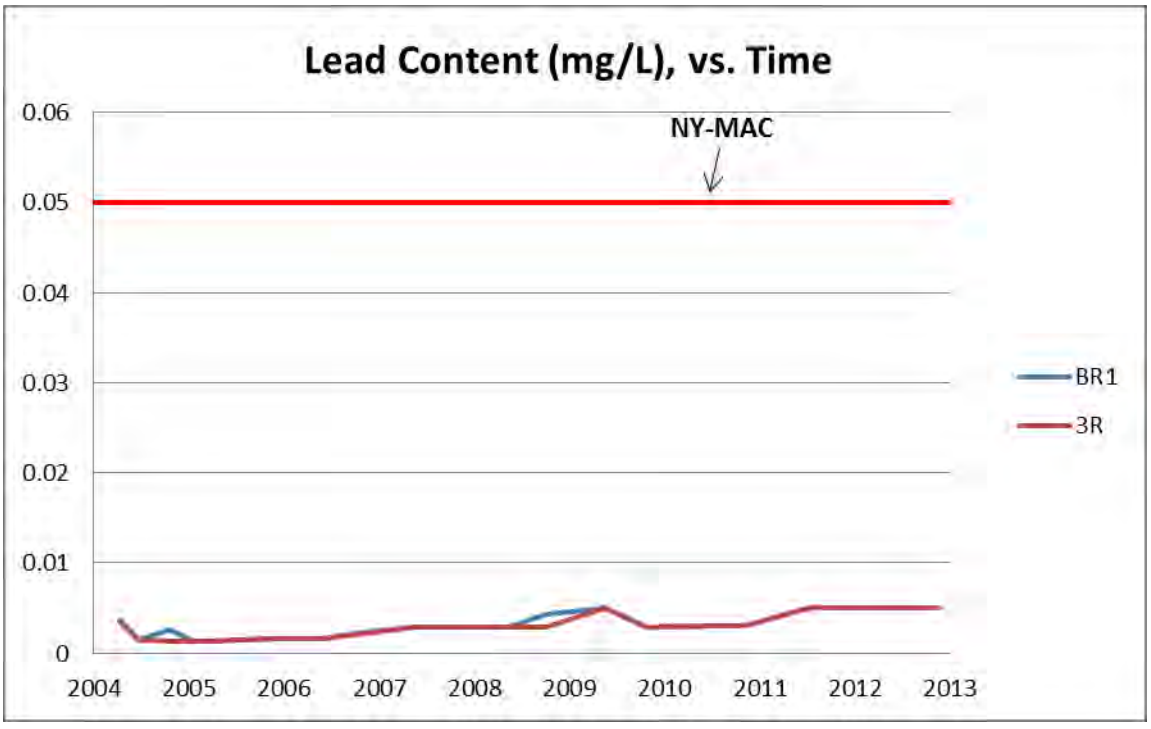


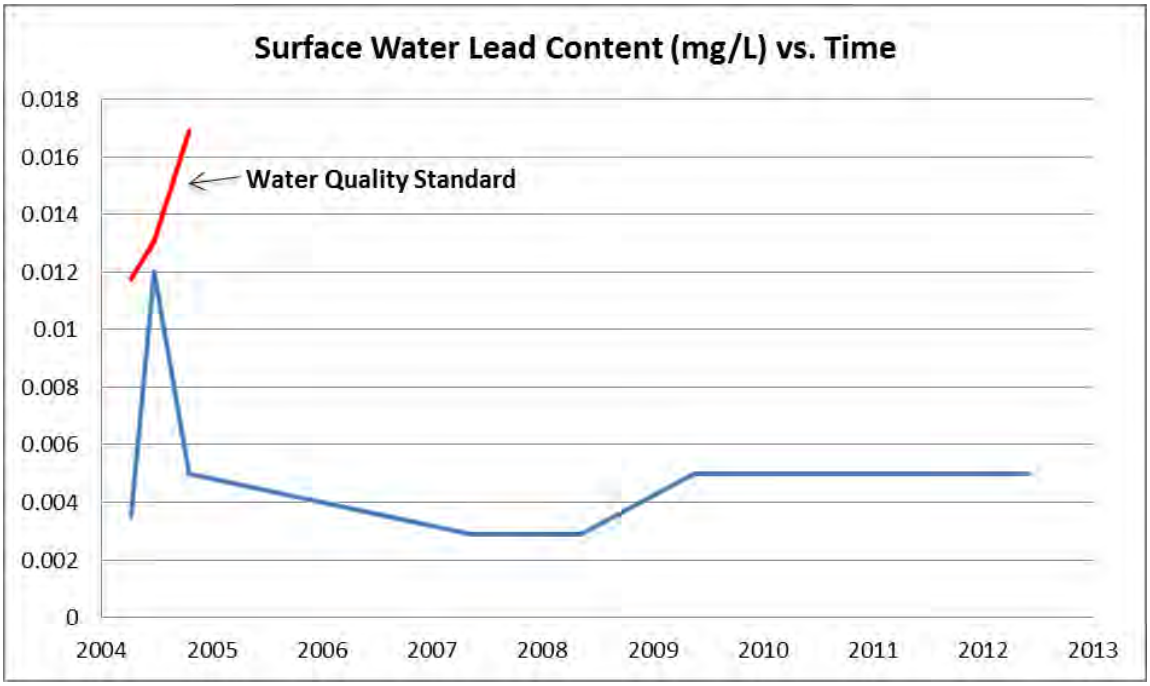

Barium Content (mg/L), vs. Time
2.5
2
1.5
1
0.5
0
NY-MAC
BR1
3R
2008
2009
2010
2011
2012
2013


Surface Water Barium Content (mg/L) vs. Time
0.12
0.1
0.08
0.06
0.04
0.02
0
2007
2008
2009
2010
2011
2012
2013

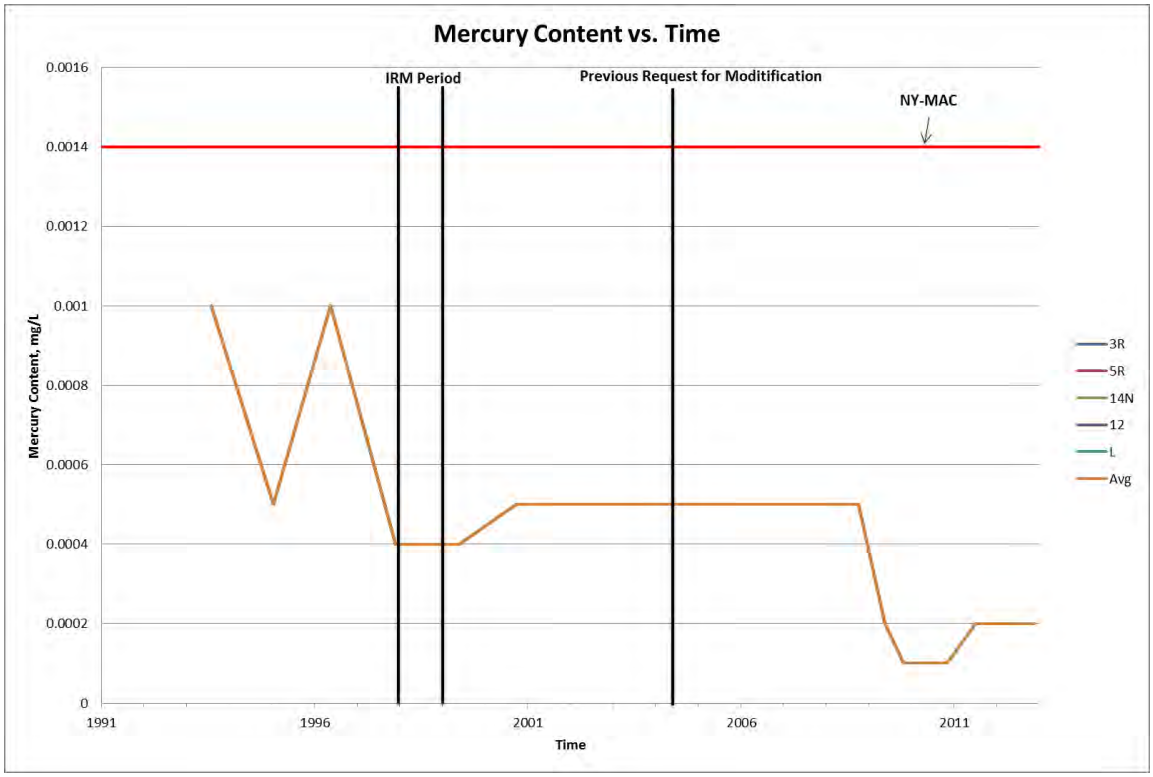
Lead Content (mg/L)

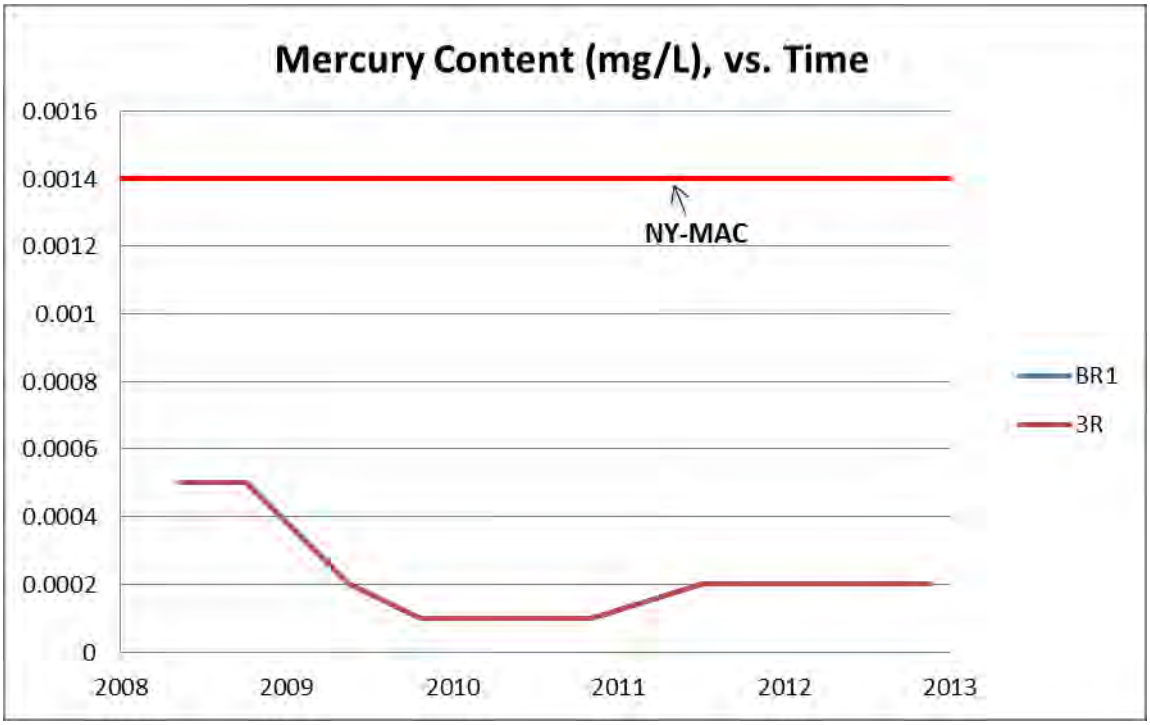


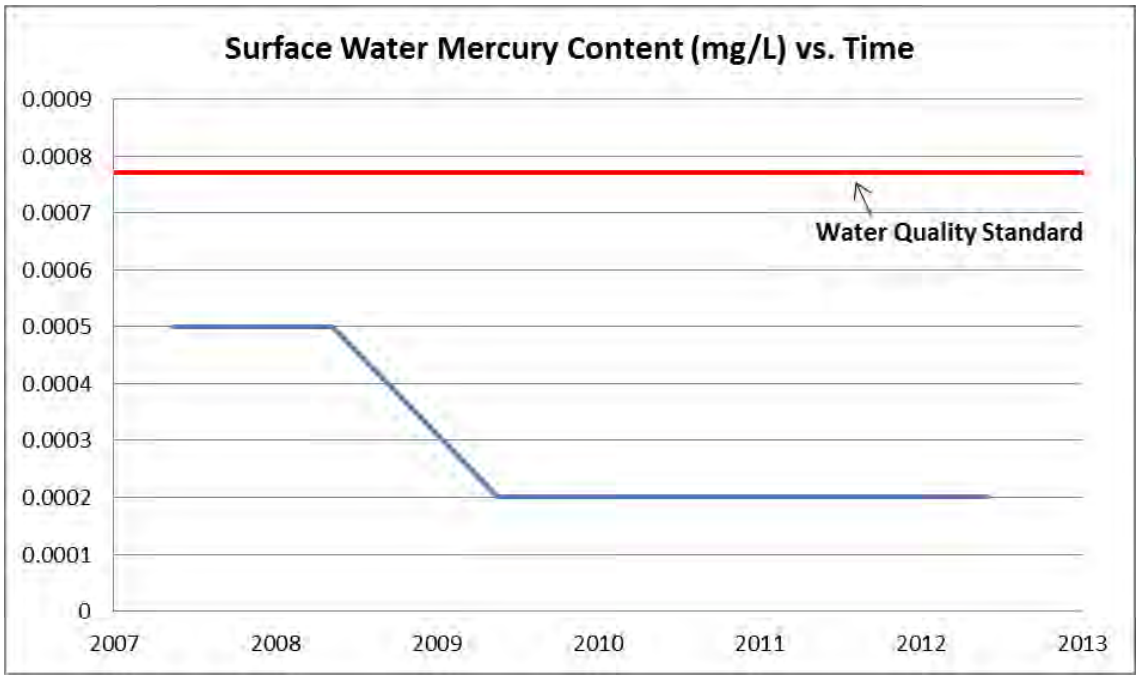




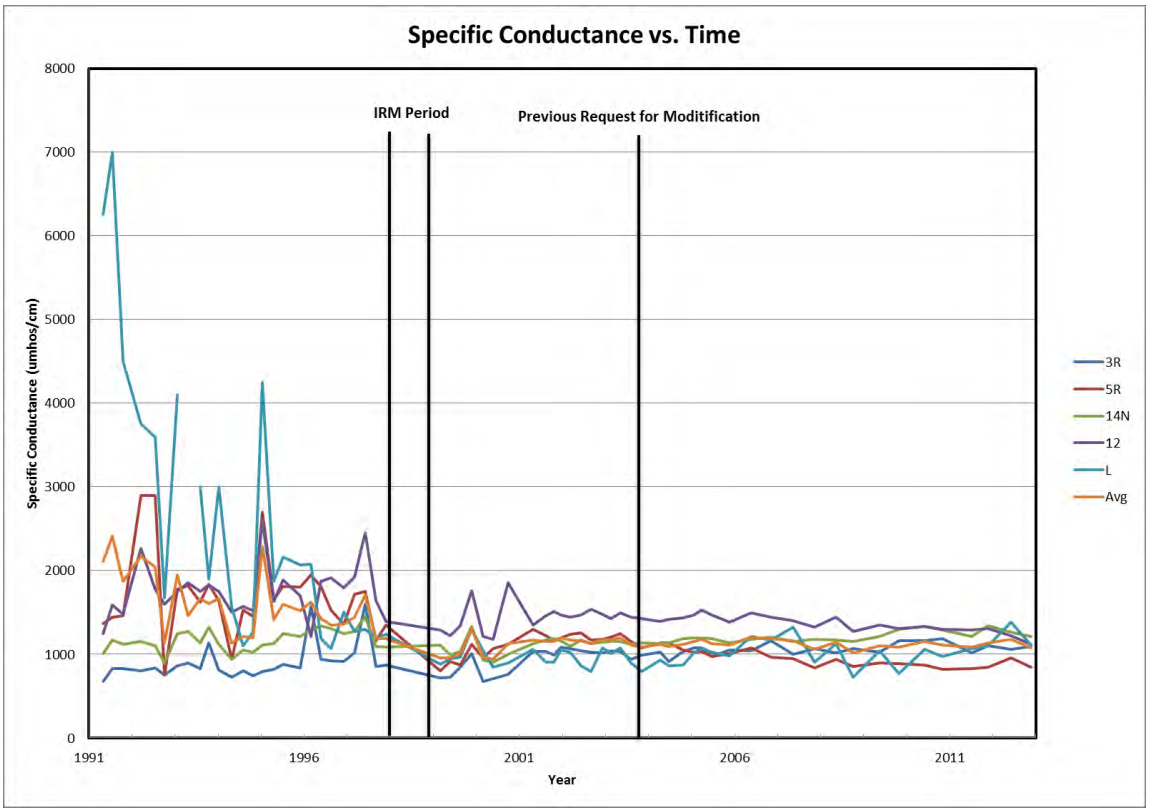
Mercury Content (mg/L)

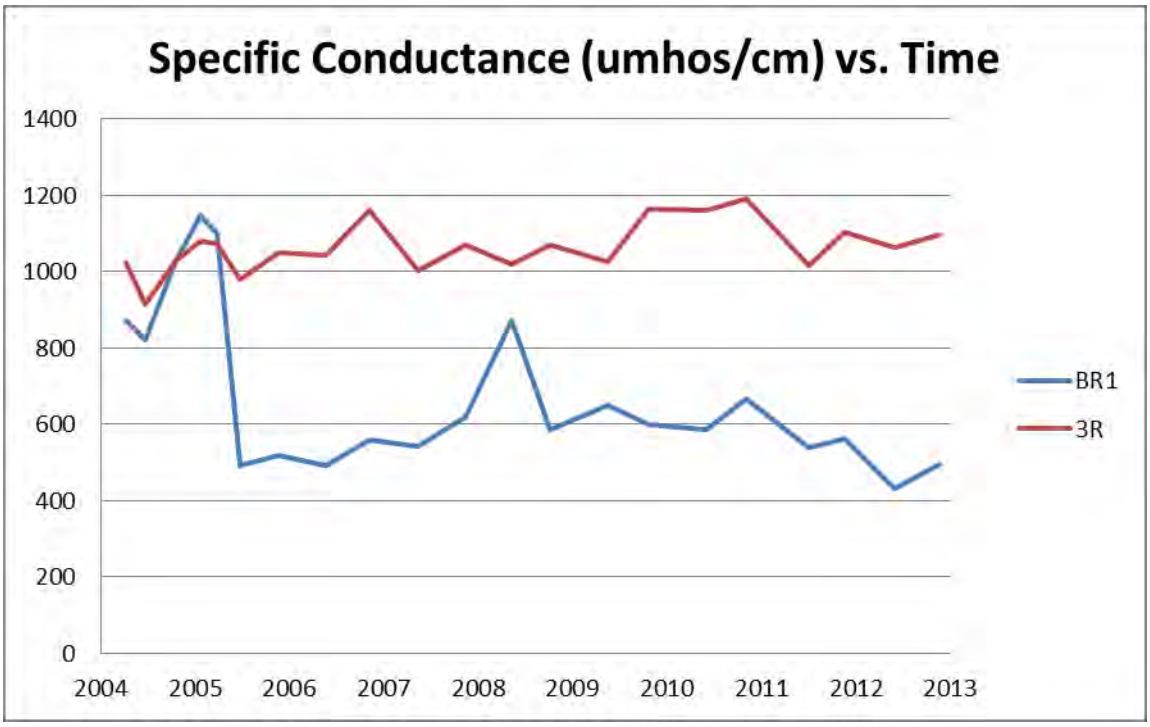


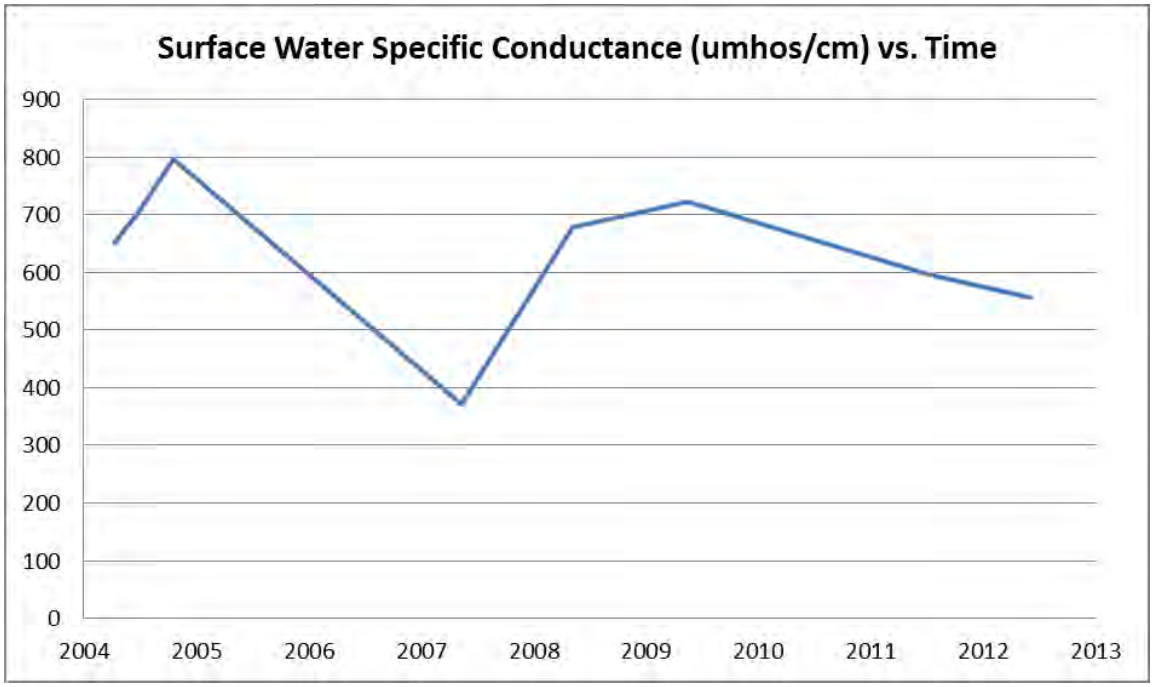

Mercury Content (mg/L), vs. Time
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2008
2009
2010
2011
2012
2013
NY-MAC
BR1
3R


Surface Water Mercury Content (mg/L) vs. Time
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
2007
2008
2009
2010
2011
2012
2013
Water Quality Standard

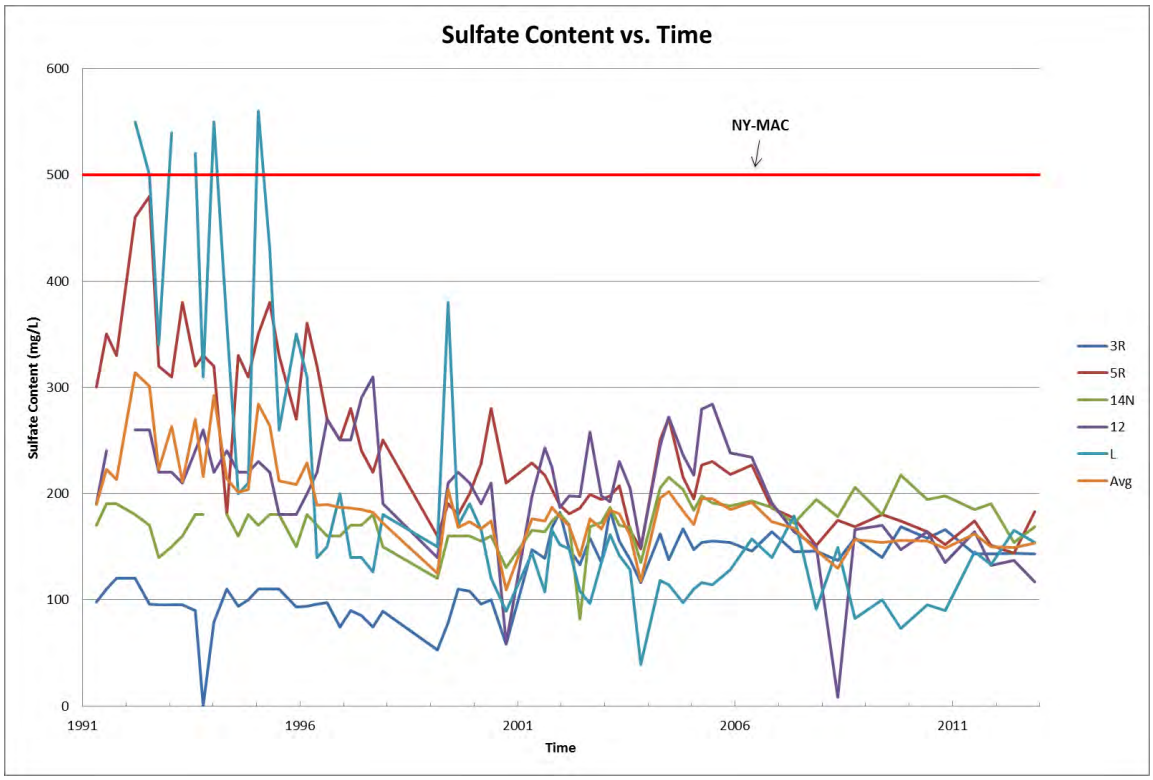
Specific Conductance (umhos/cm)

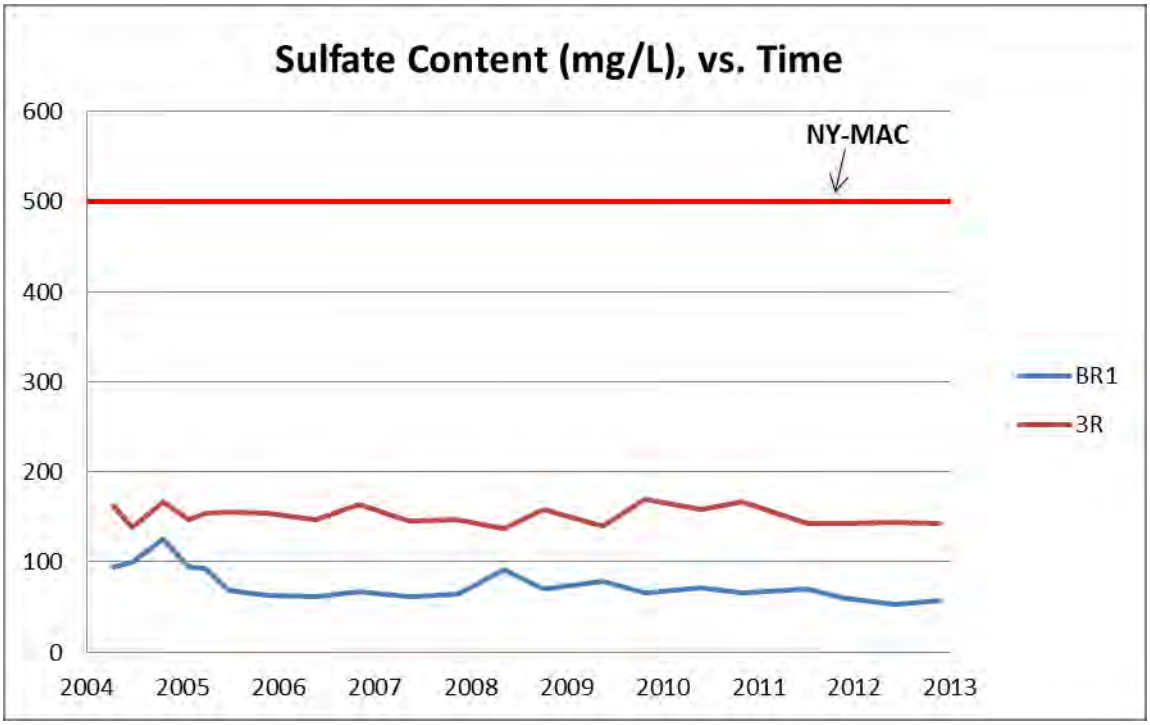


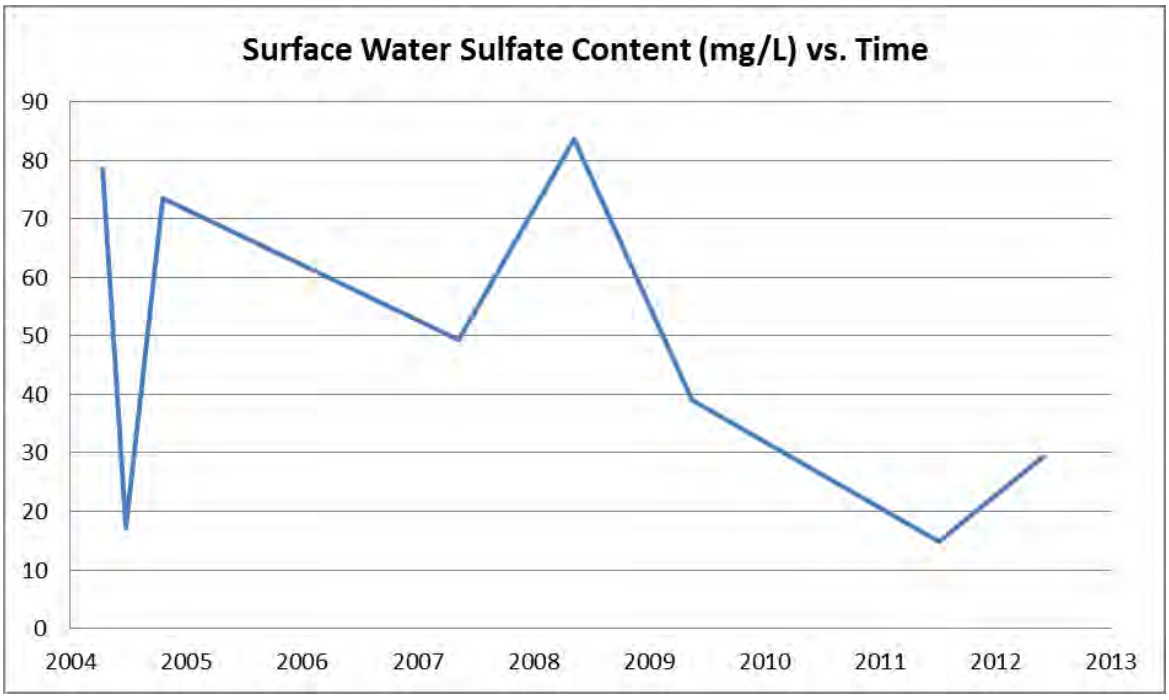




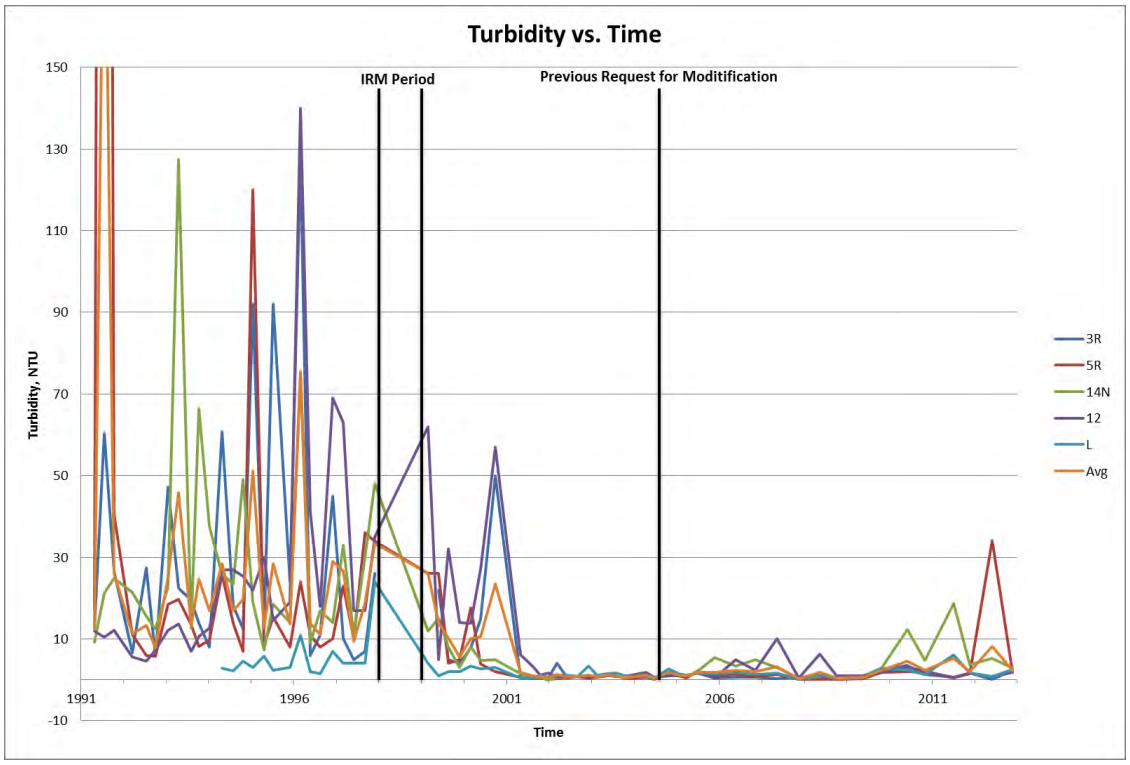
Sulfate Content (mg/L)

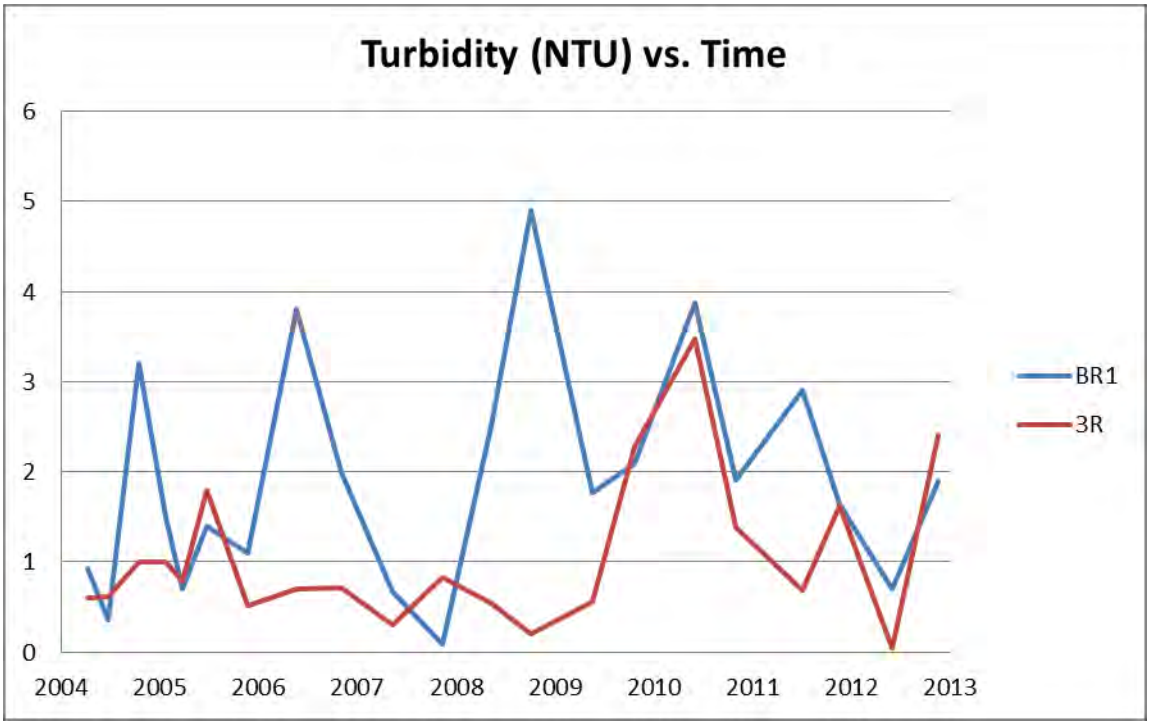


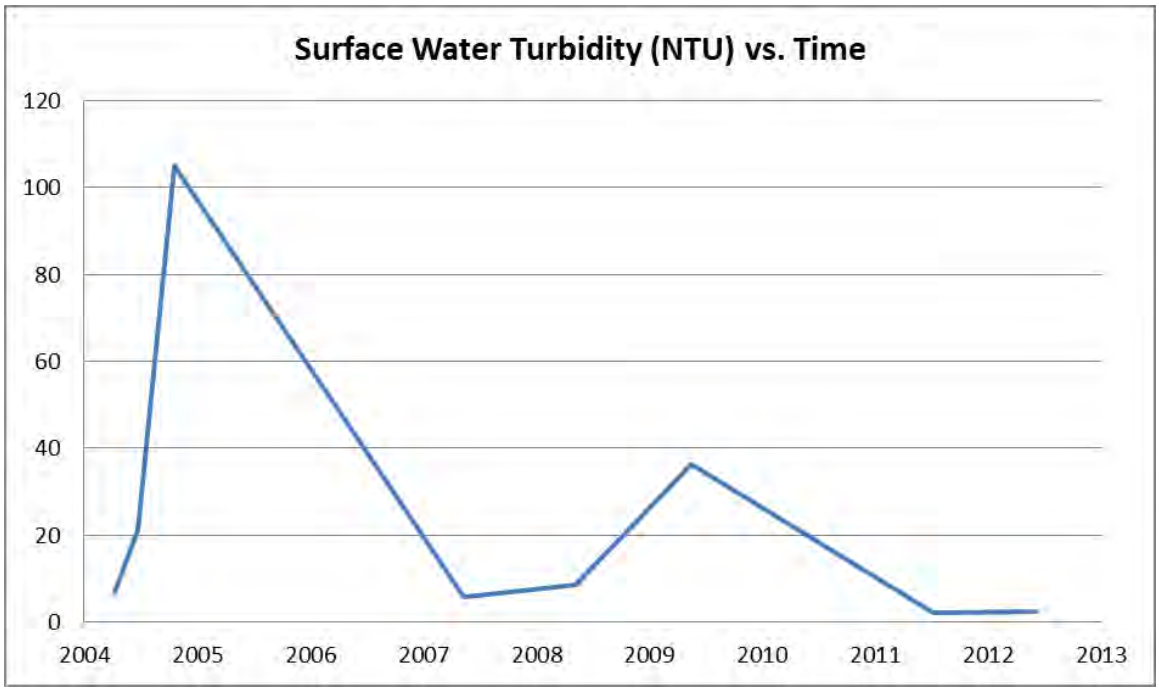

Sulfate Content (mg/L), vs. Time
600
500
400
300
200
100
0
NY-MAC
BR1
3R
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013


Surface Water Sulfate Content (mg/L) vs. Time
90
80
70
60
50
40
30
20
10
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

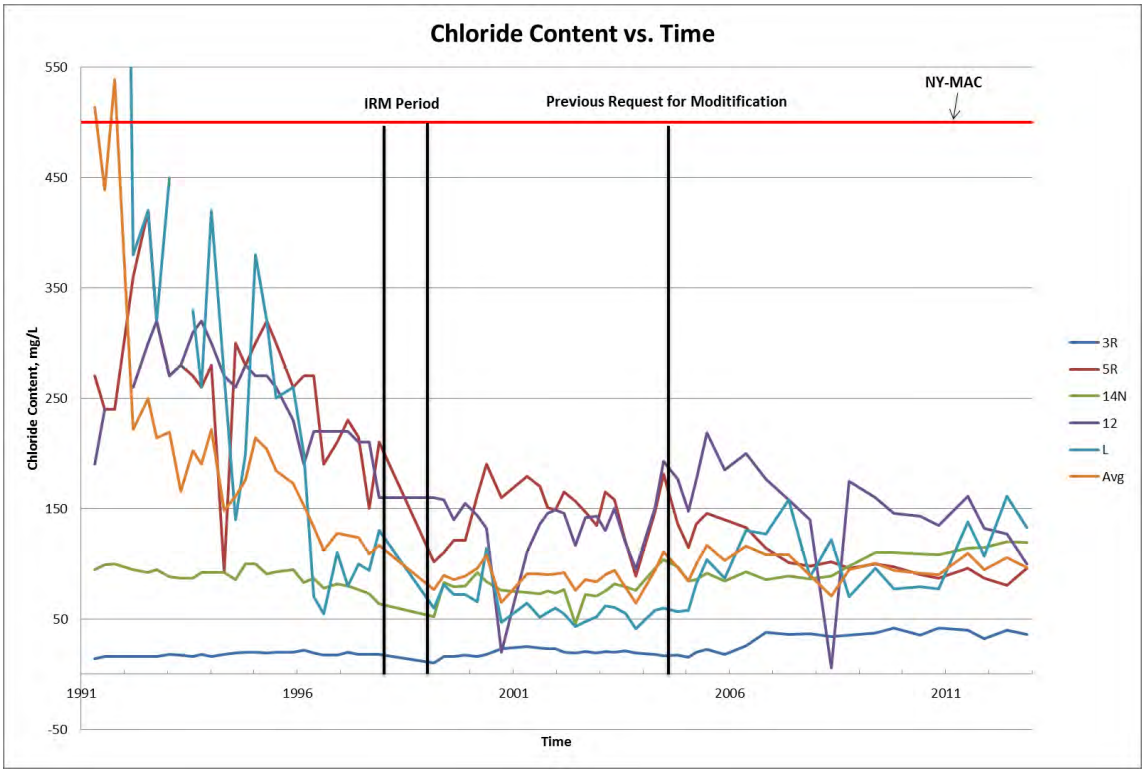
Turbidity (NTU)

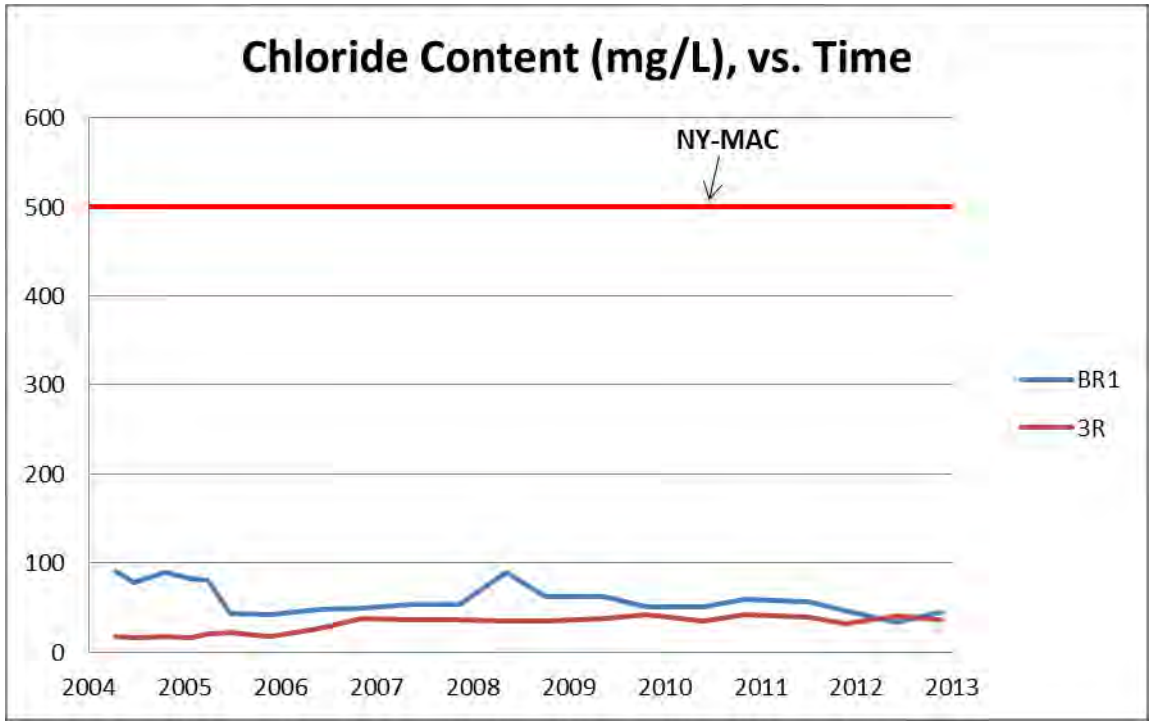


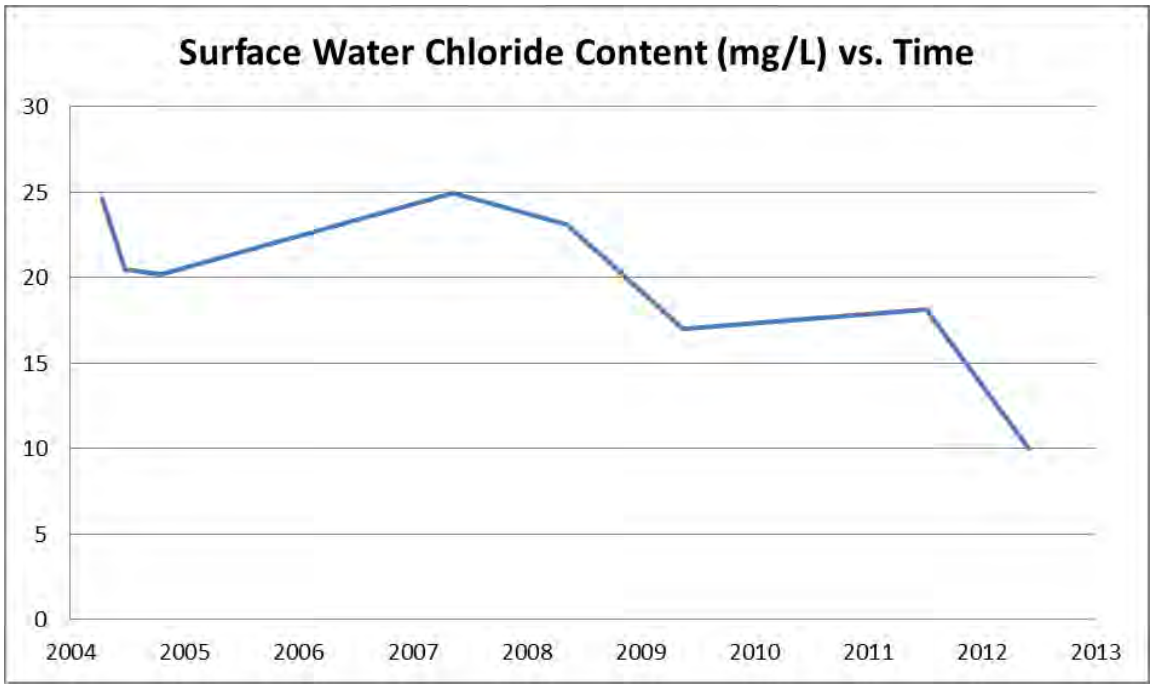




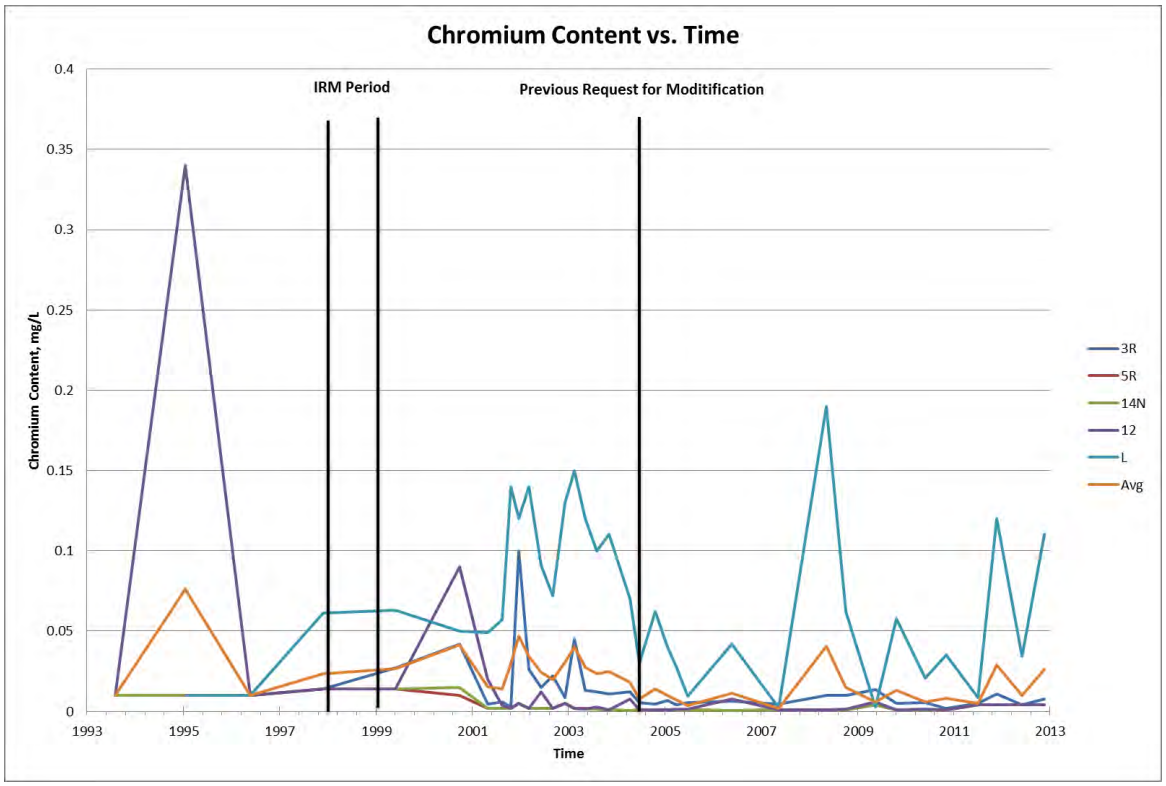
Chloride Content (mg/L)

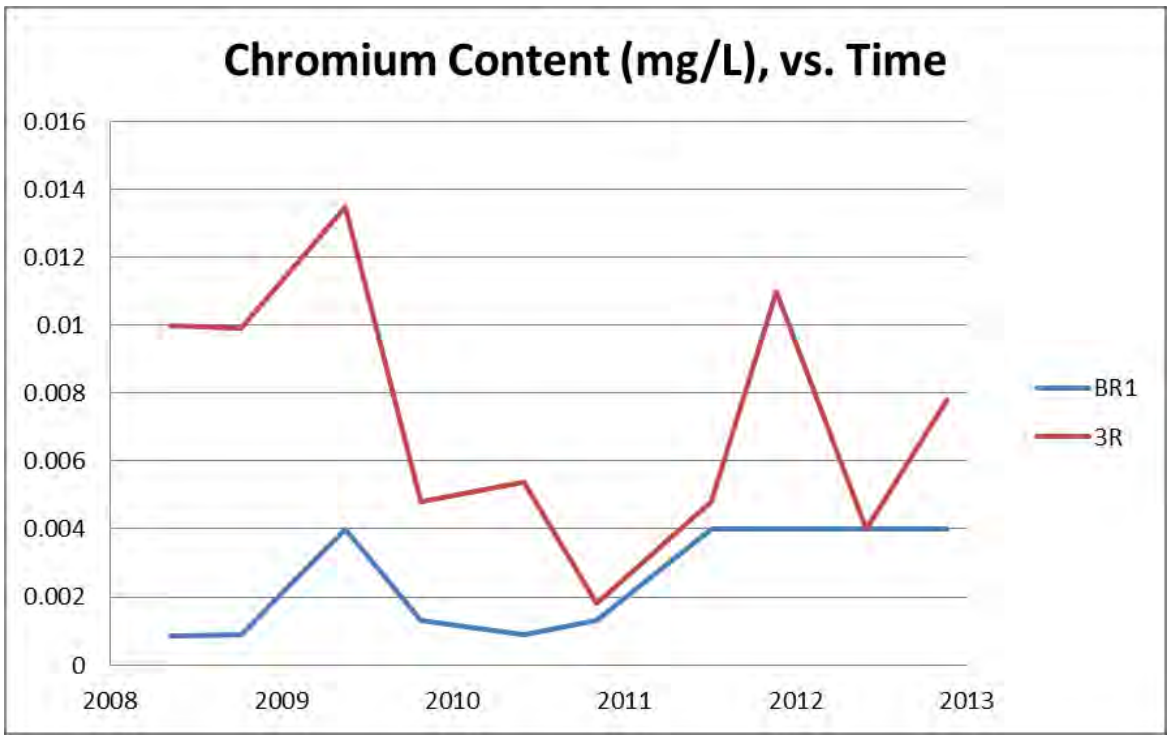


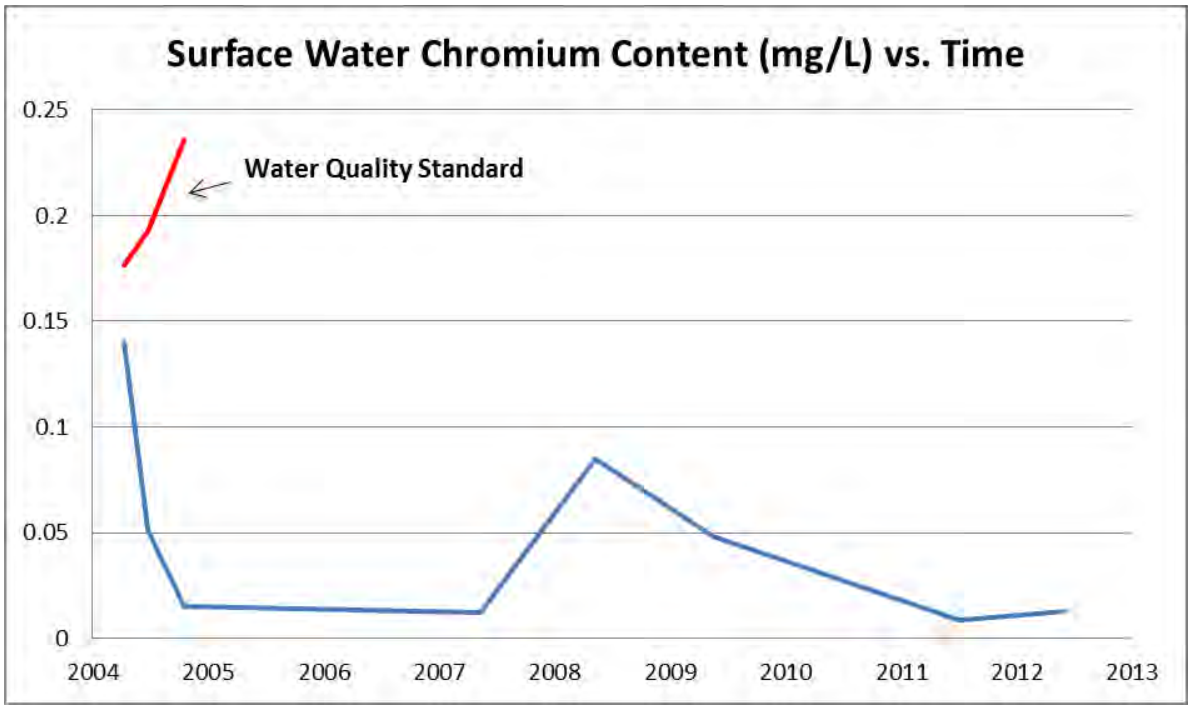

Chloride Content (mg/L), vs. Time
600
500
400
300
200
100
0
NY-MAC
BR1
3R
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013


Surface Water Chloride Content (mg/L) vs. Time
30
25
20
15
10
5
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

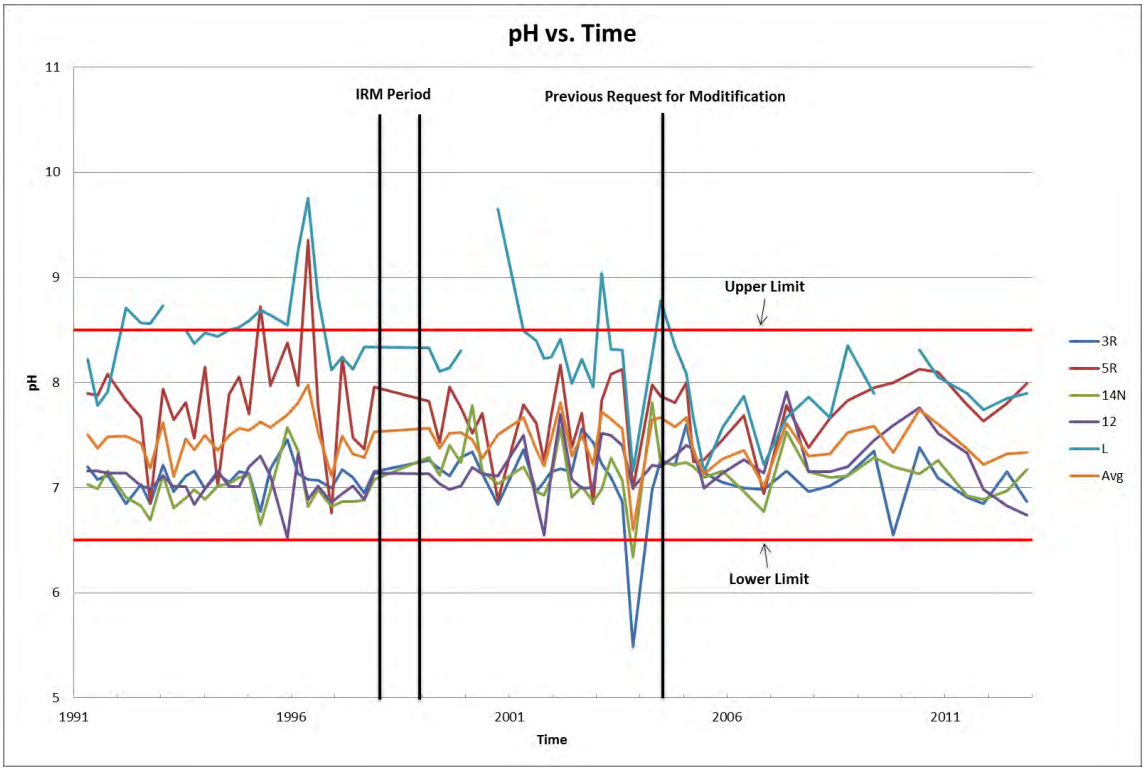
Elemental Chromium Content (mg/L)

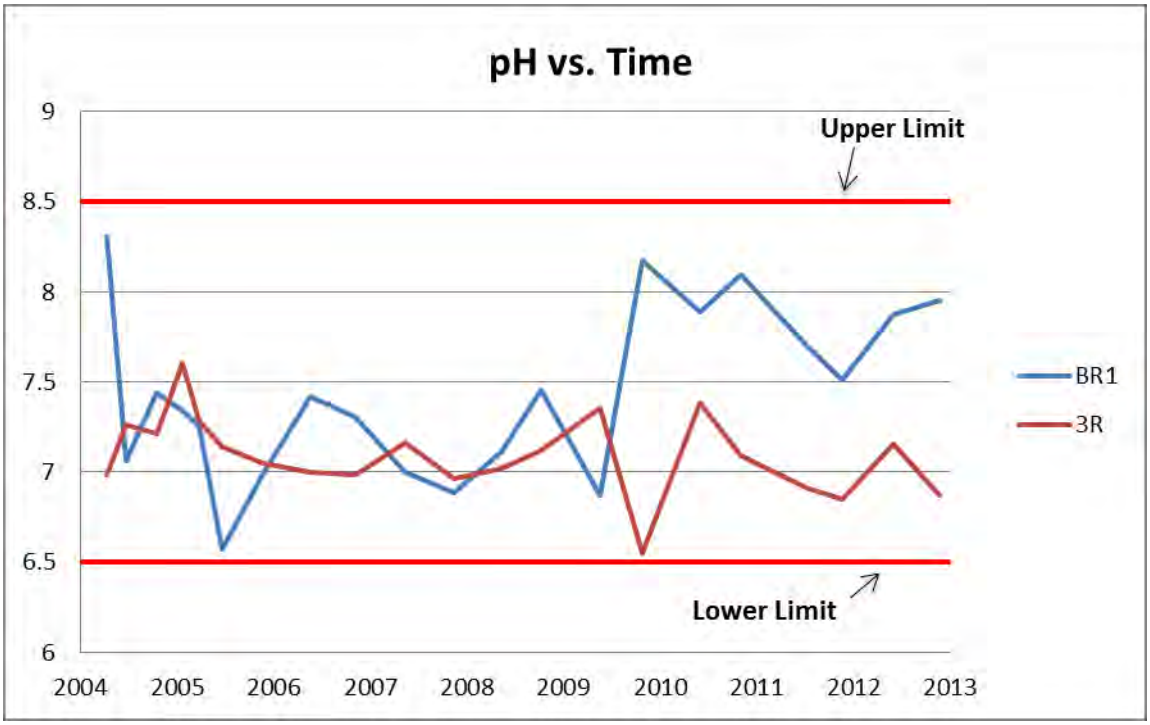


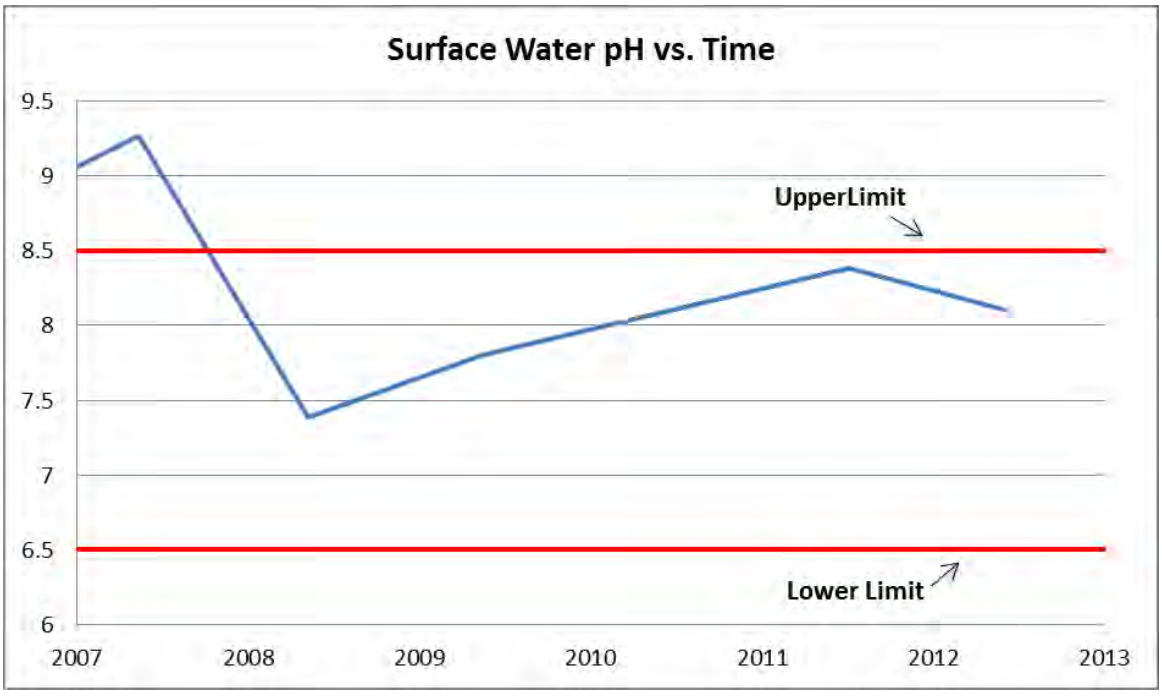



Surface Water Chromium Content (mg/L) vs. Time
0.25
0.2
0.15
0.1
0.05
0
Water Quality Standard
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

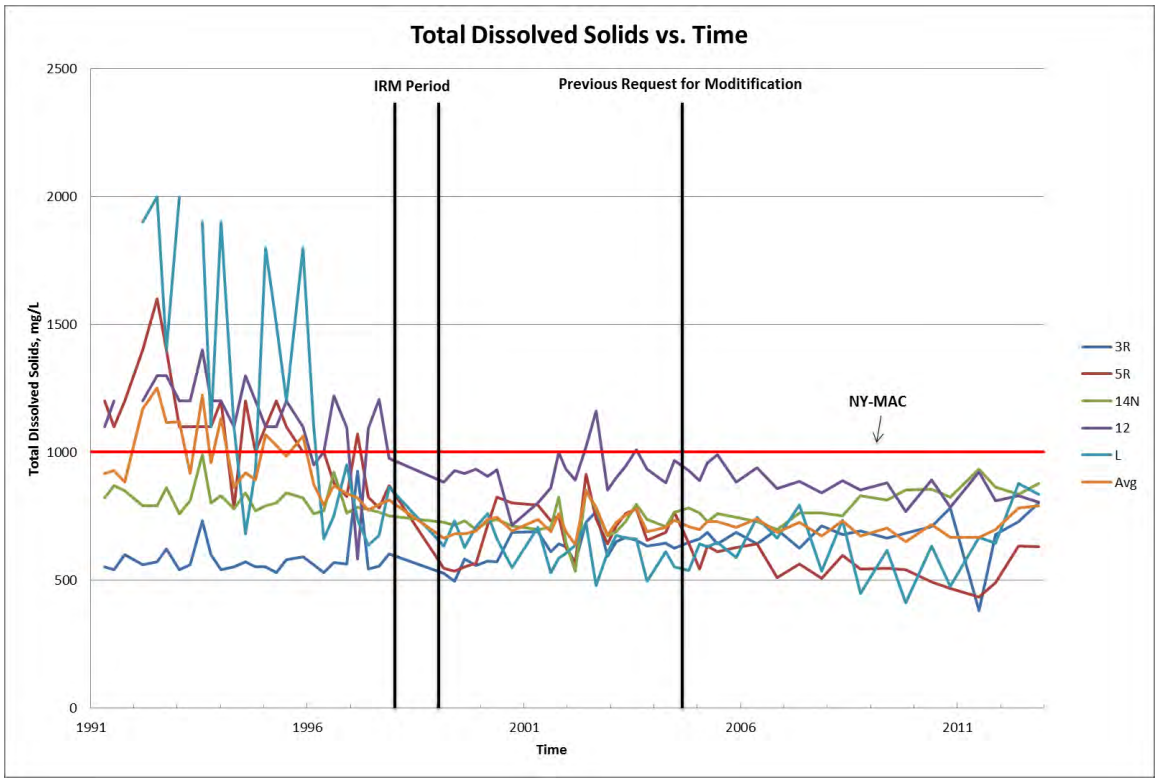
pH

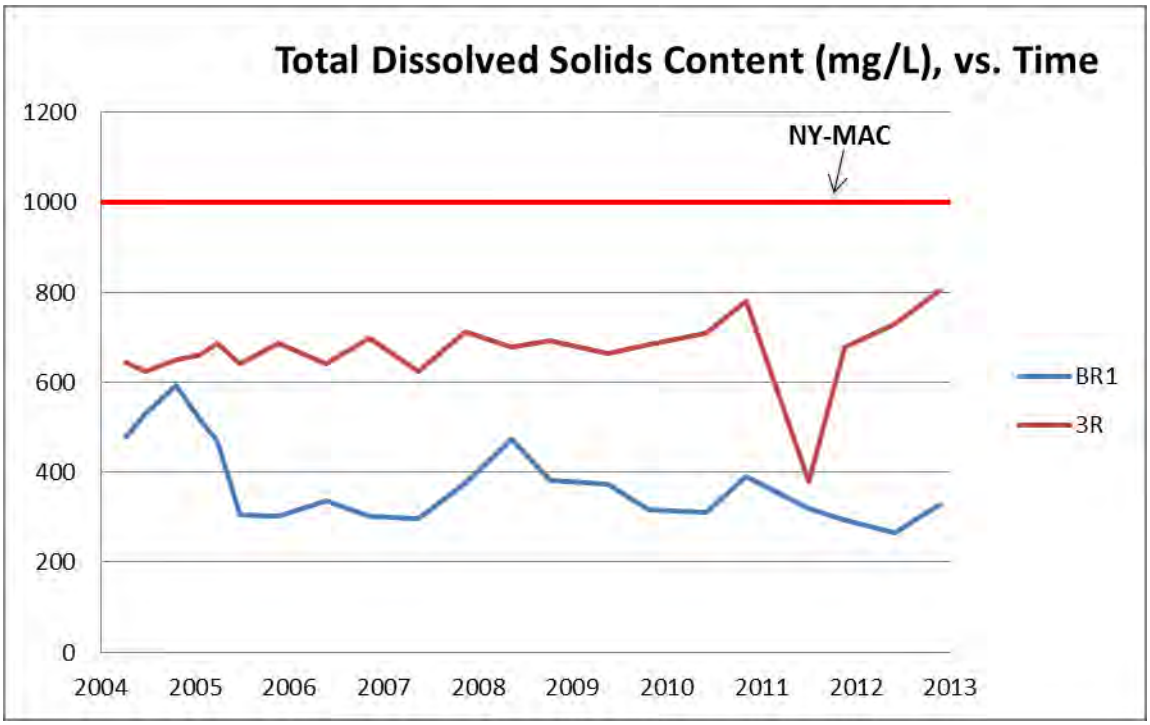

pH vs. Time
11
10
9
8
7
6
5
pH
IRM Period
Previous Request for Moditification
Upper Limit
Lower Limit
1991
1996
2001
2006
2011
Time
3R
5R
14N
12
L
Avg

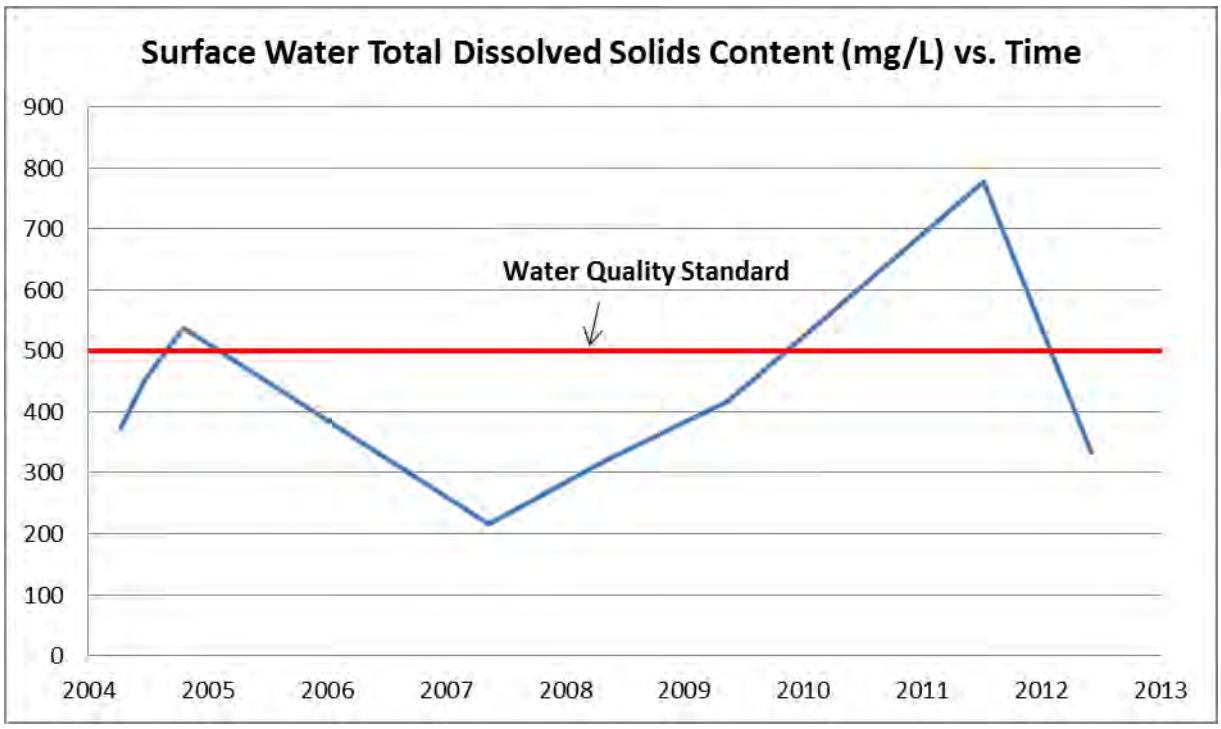

pH vs. Time
9
8.5
8
7.5
7
6.5
6
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Upper Limit
Lower Limit
BR1
3R


Surface Water pH vs. Time
9.5
9
8.5
8
7.5
7
6.5
6
2007
2008
2009
2010
2011
2012
2013
UpperLimit
Lower Limit

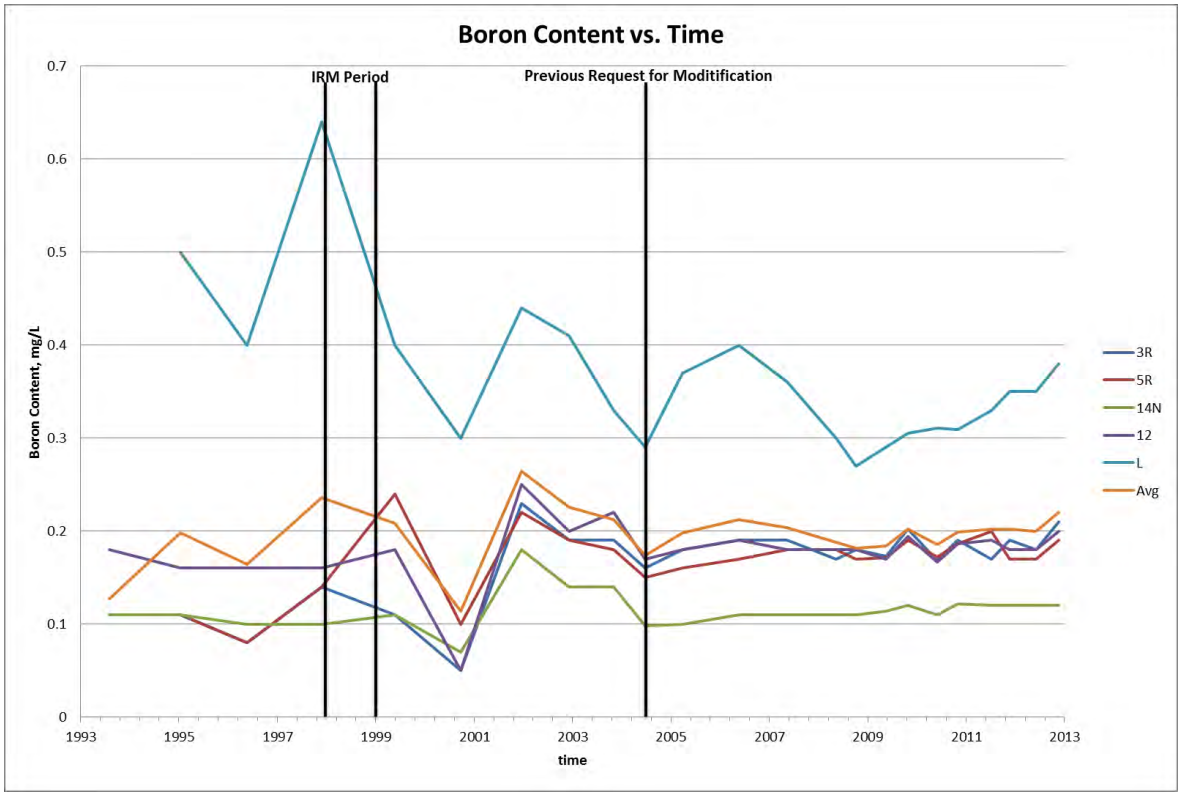
Total Dissolved Solids (mg/L)

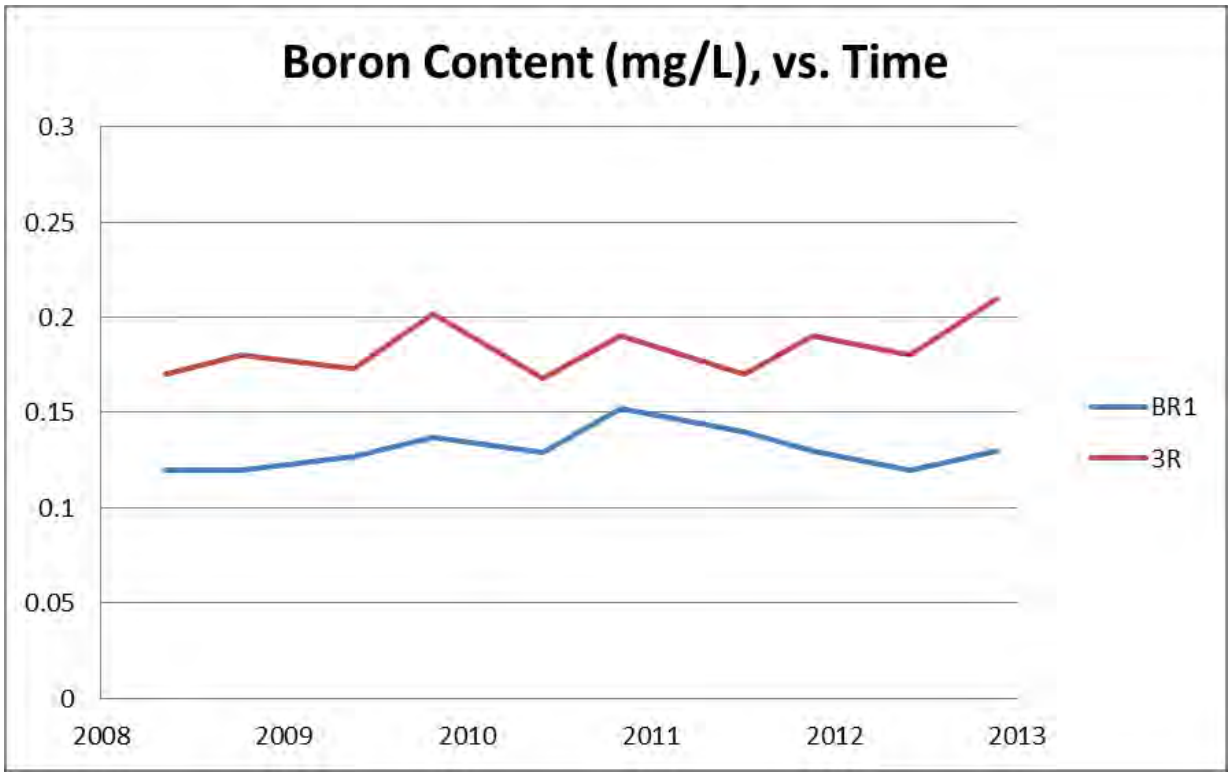


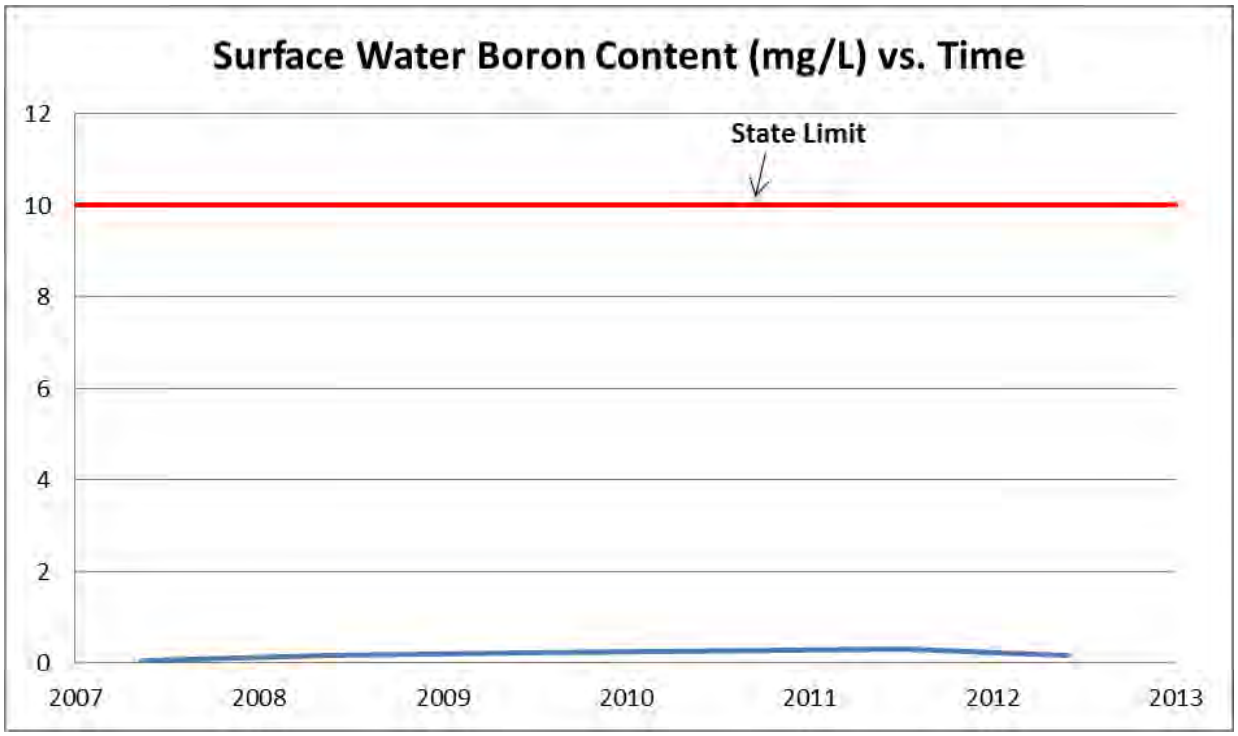




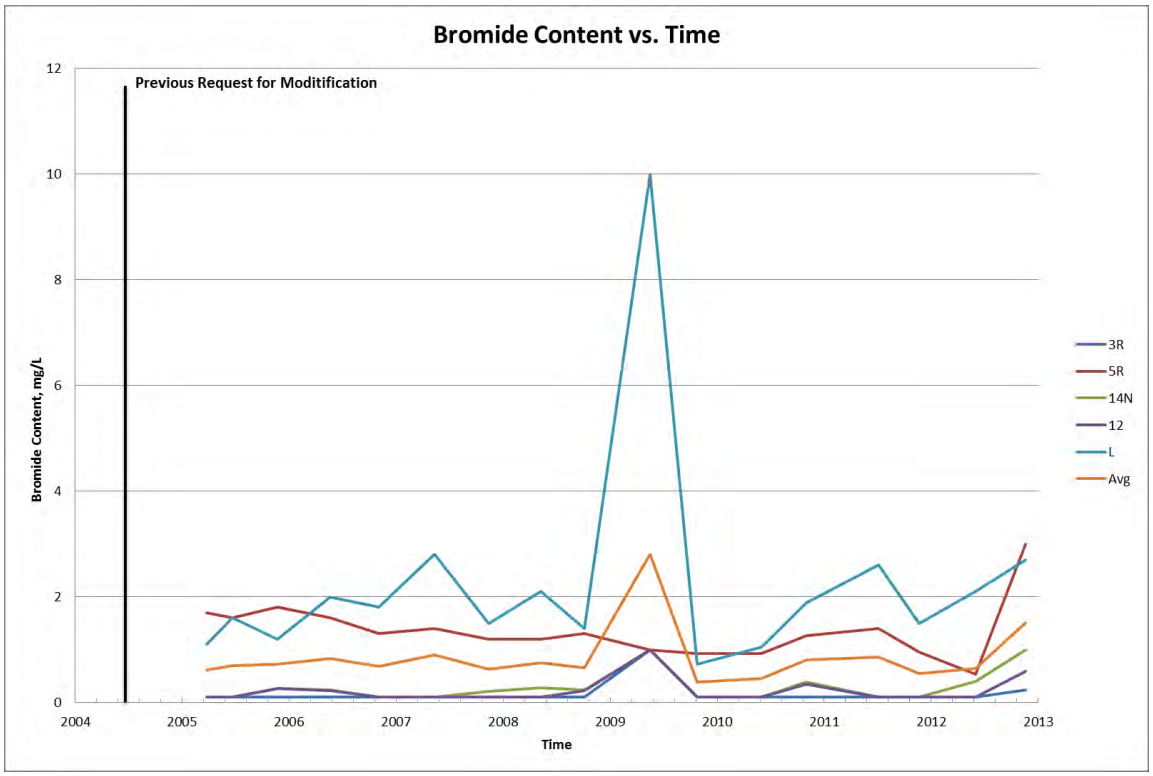
Boron Content (mg/L)

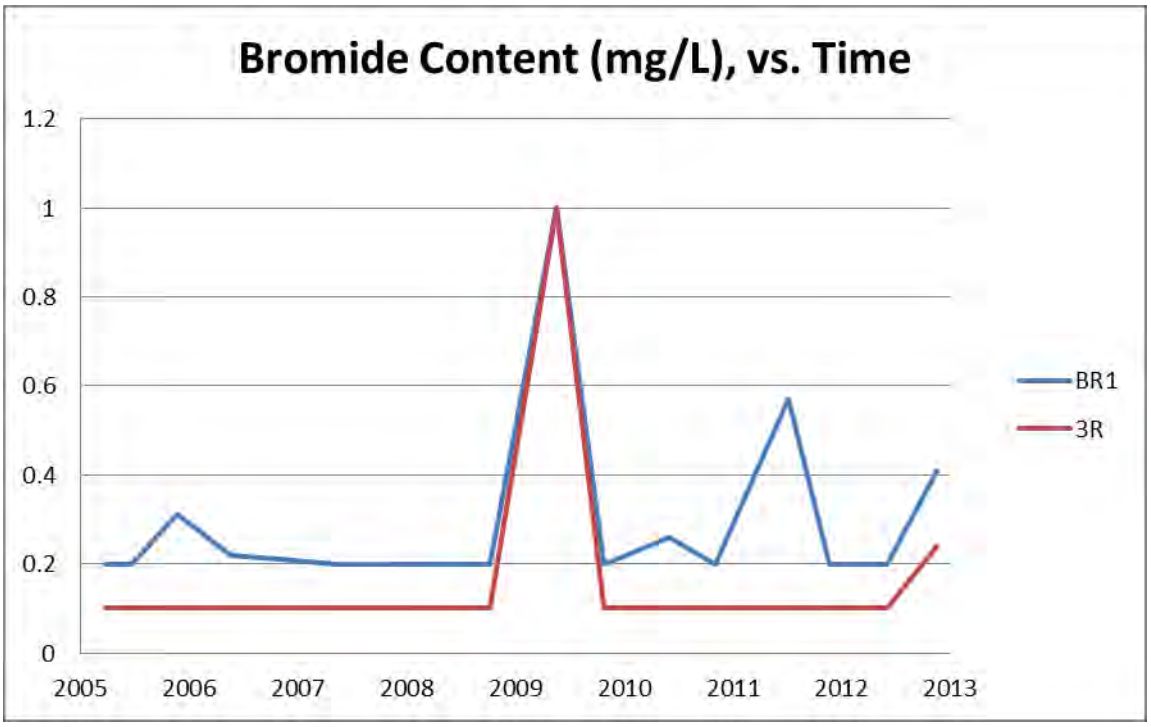


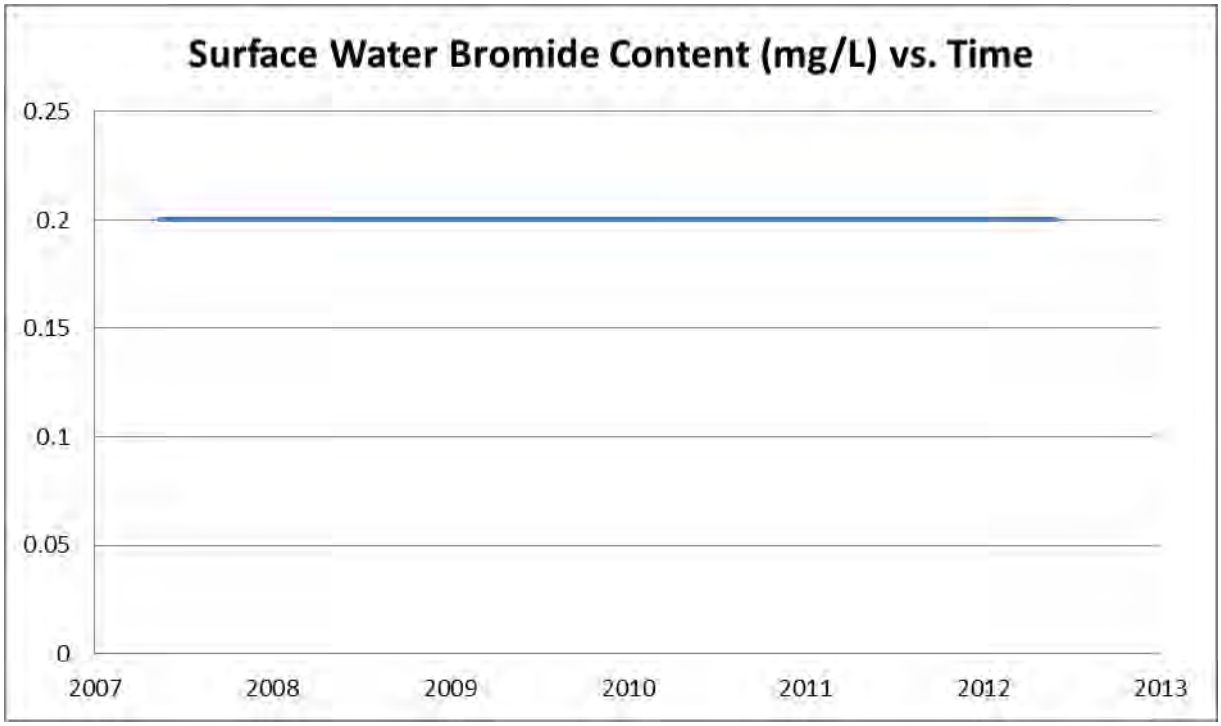

Boron Content (mg/L), vs. Time
0.3
0.25
0.2
0.15
0.1
0.05
0
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Boron Content (mg/L) vs. Time
12
10
8
6
4
2
0
State Limit
2007
2008
2009
2010
2011
2012
2013

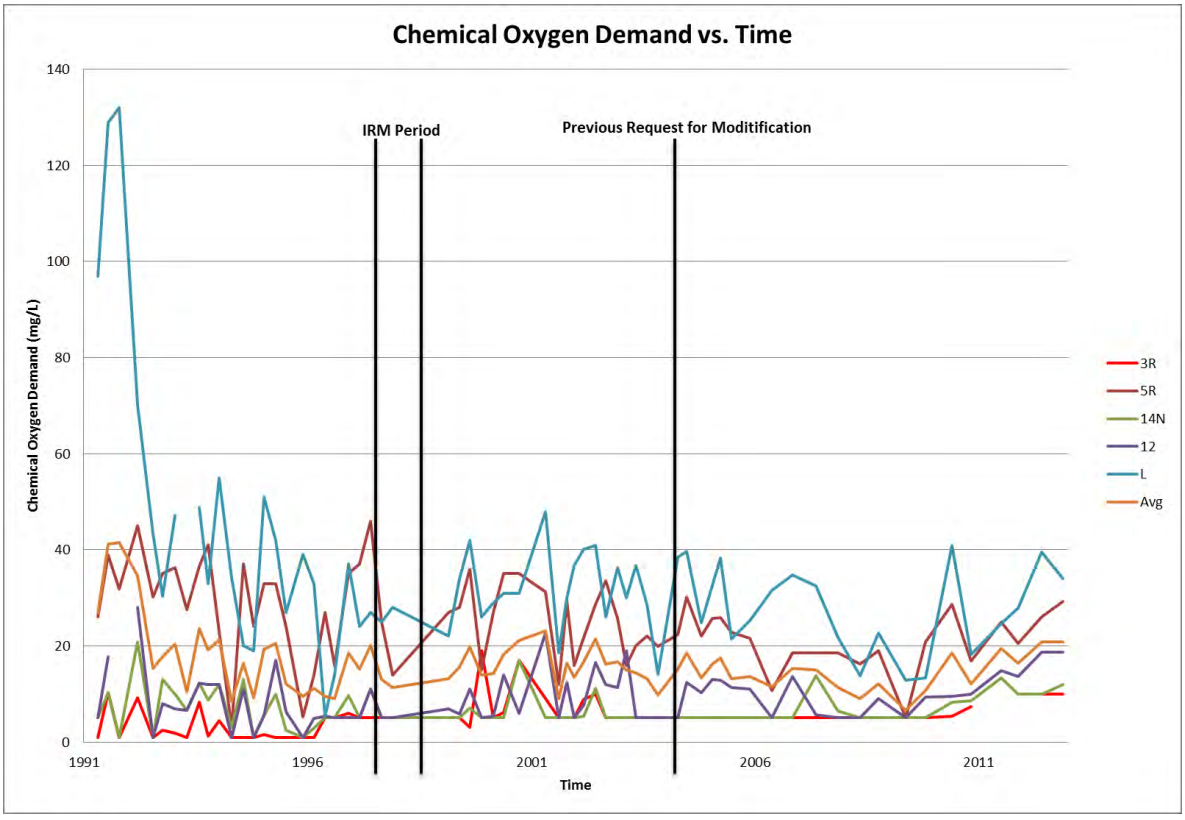
Bromide Content (mg/L)

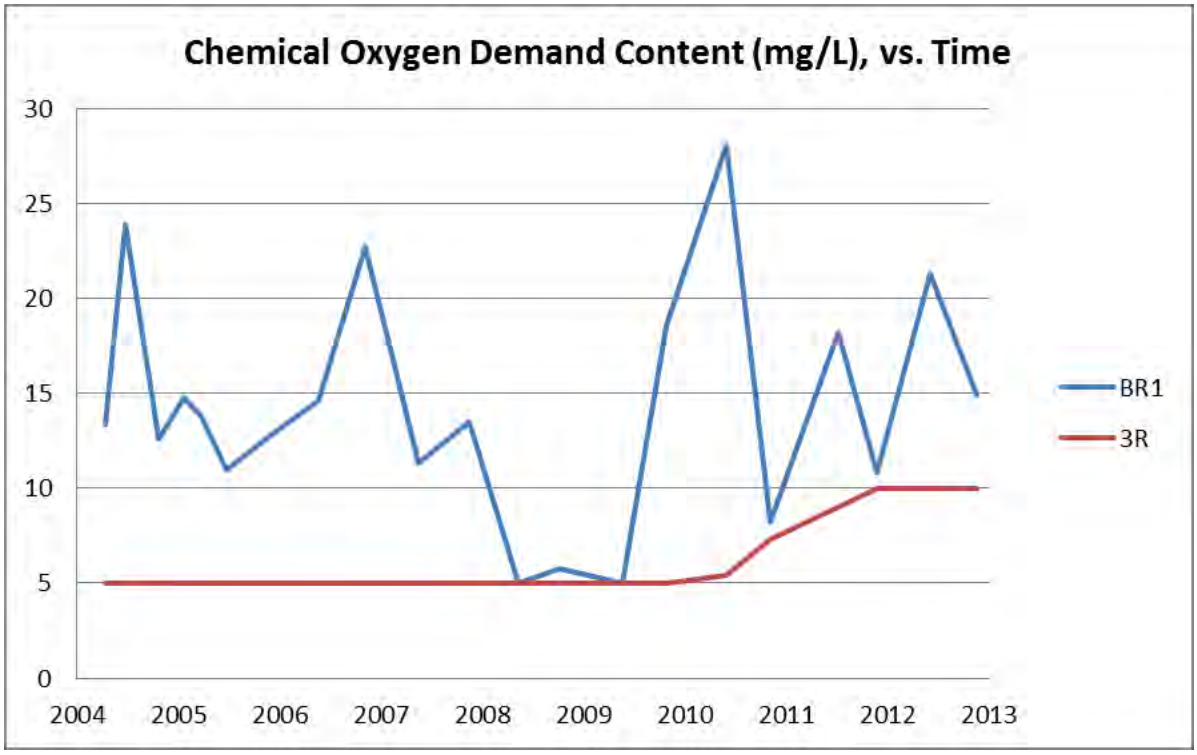


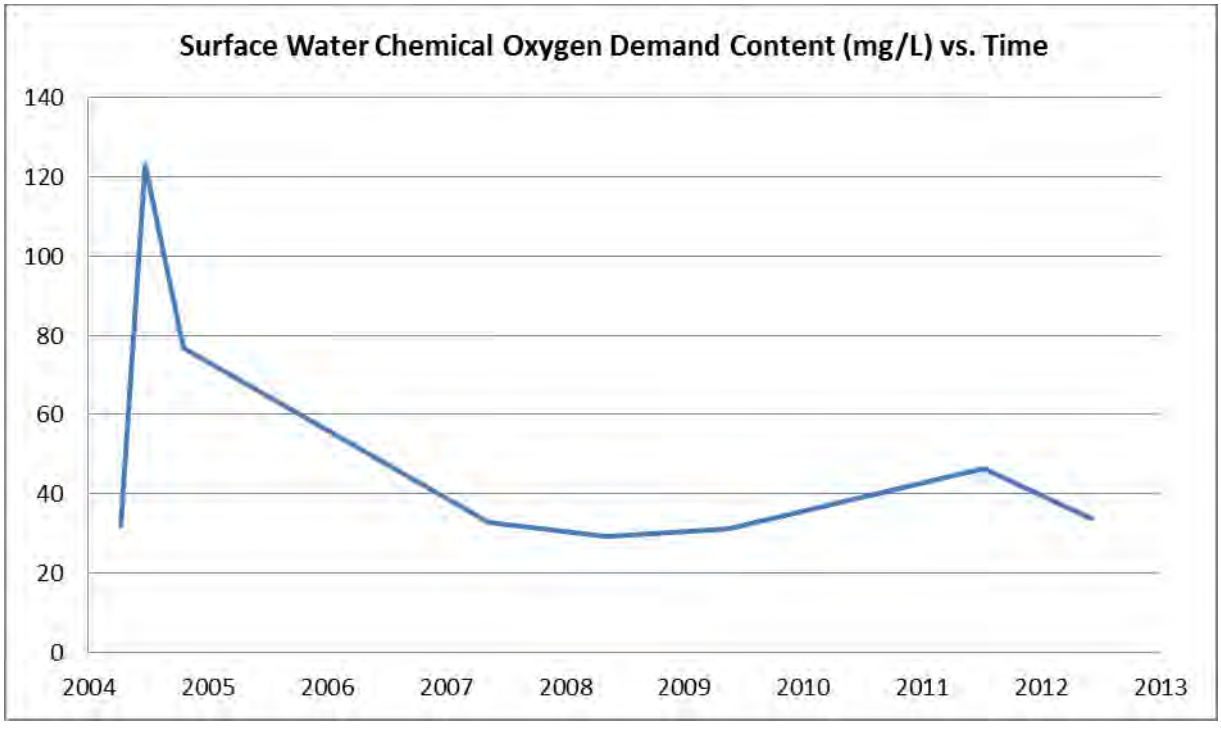




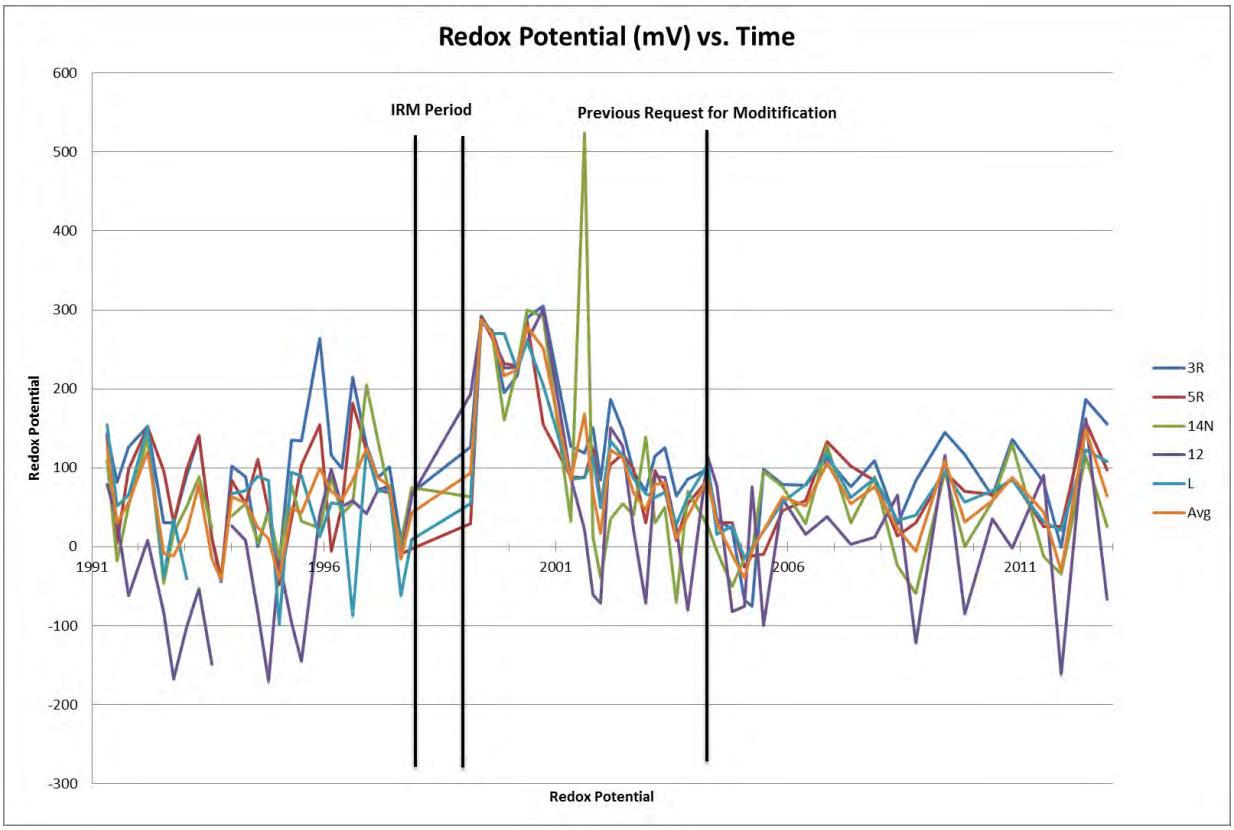
Chemical Oxygen Demand (mg/L)

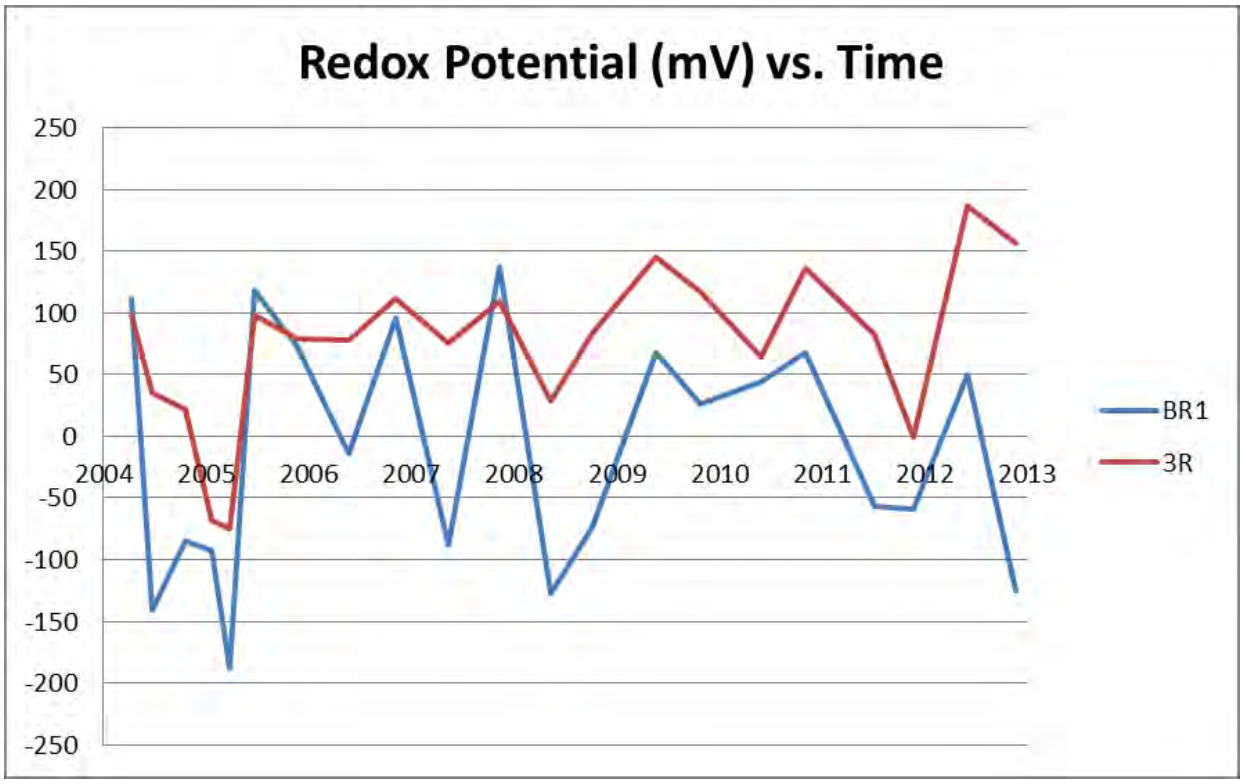


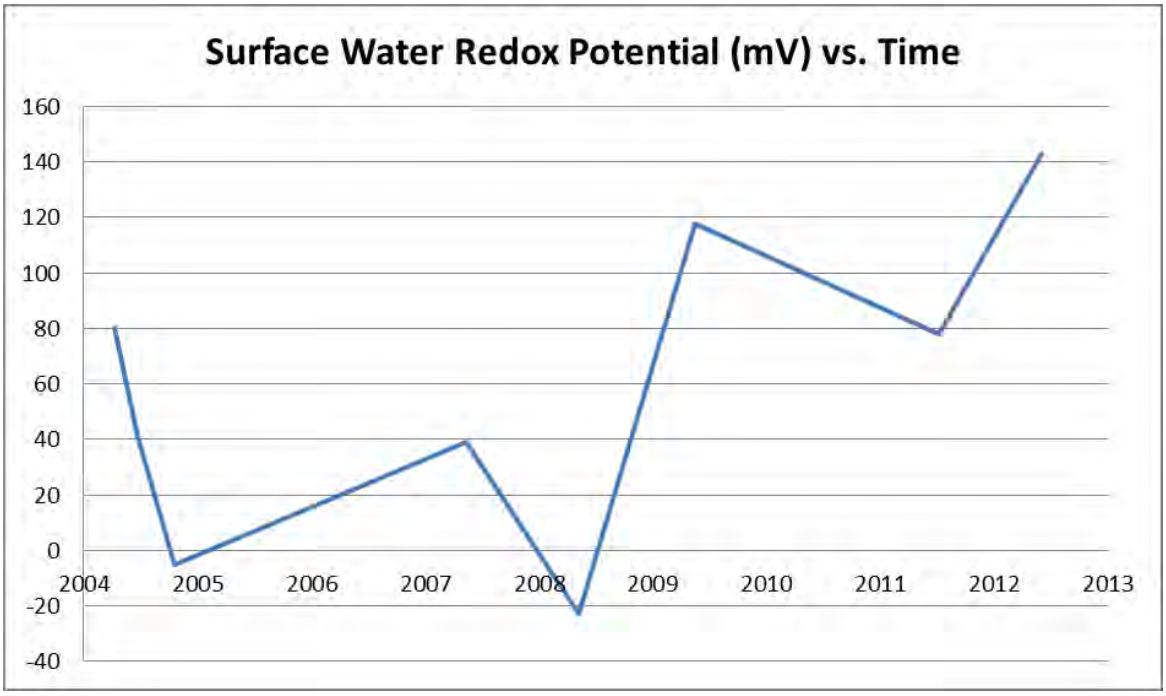

Chemical Oxygen Demand Content (mg/L), vs. Time
30
25
20
15
10
5
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Chemical Oxygen Demand Content (mg/L) vs. Time
140
120
100
80
60
40
20
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

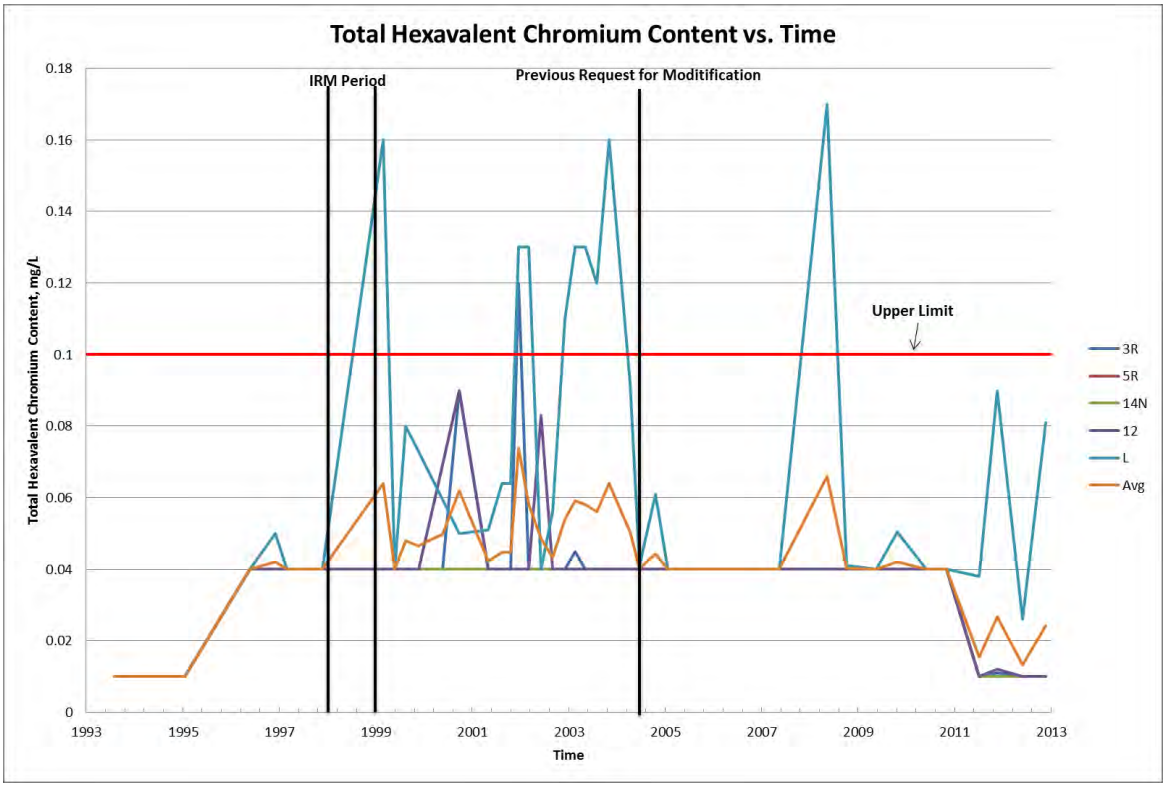
Redox Potential (mV)

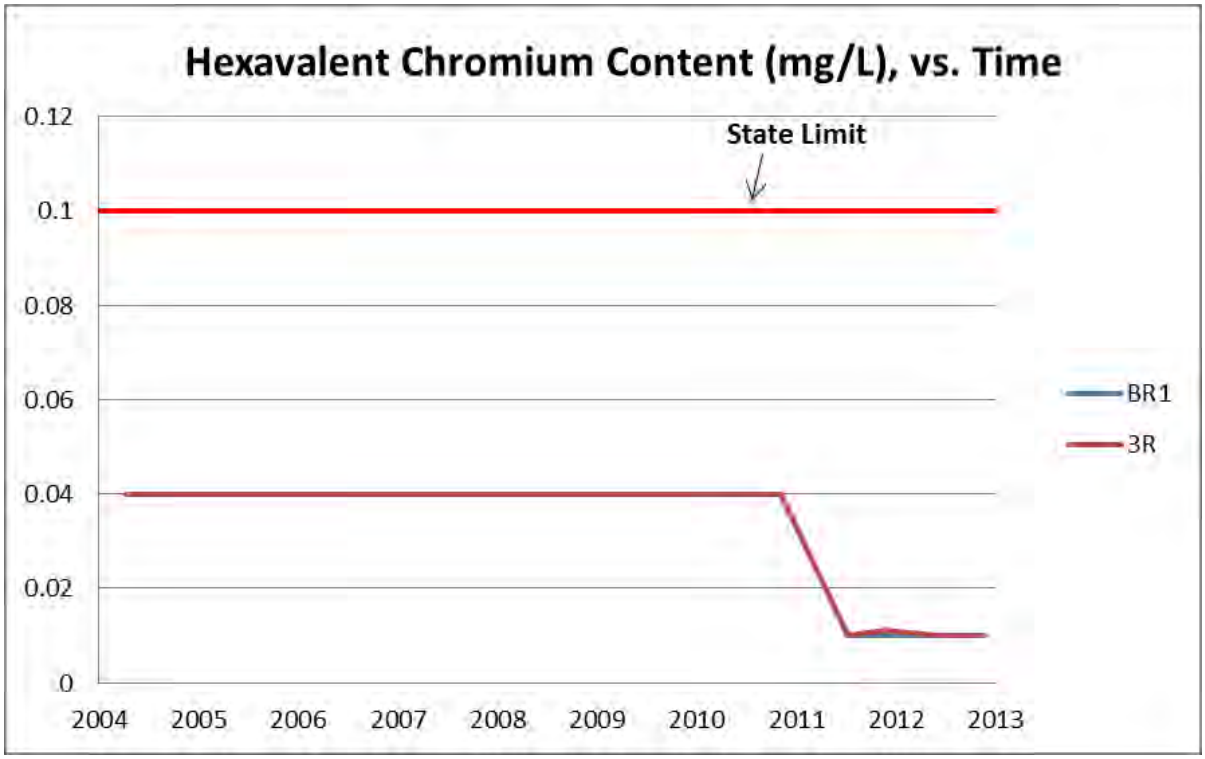


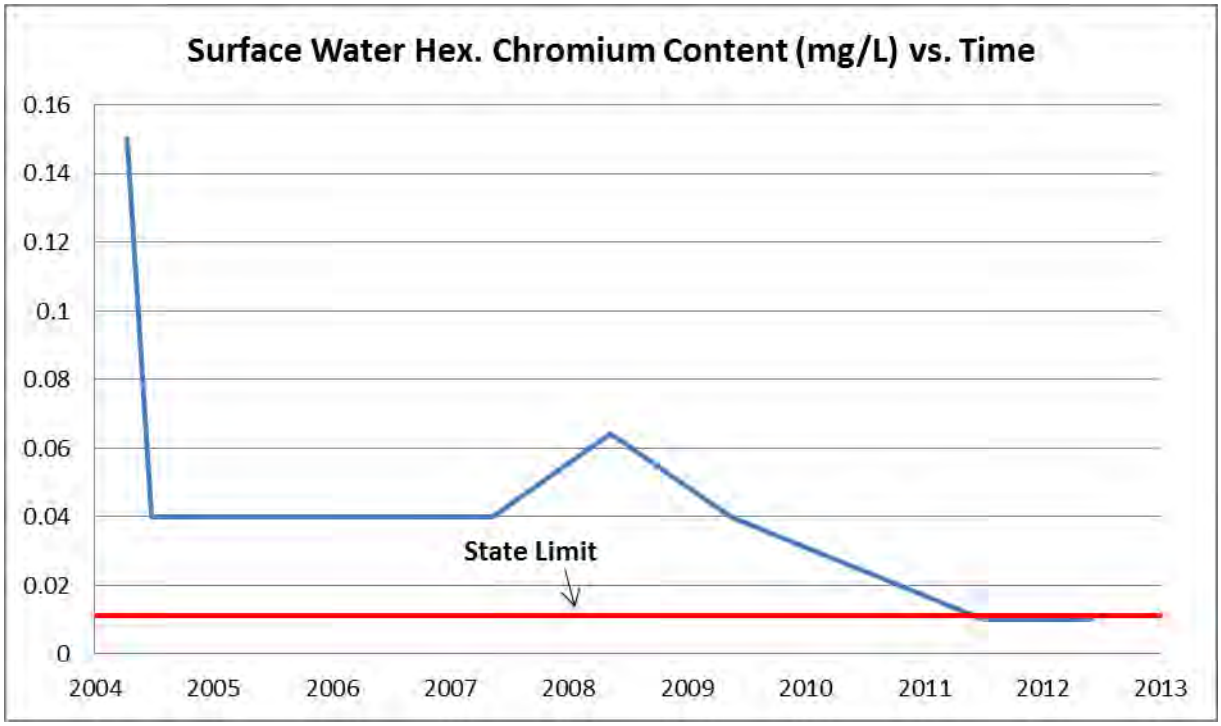




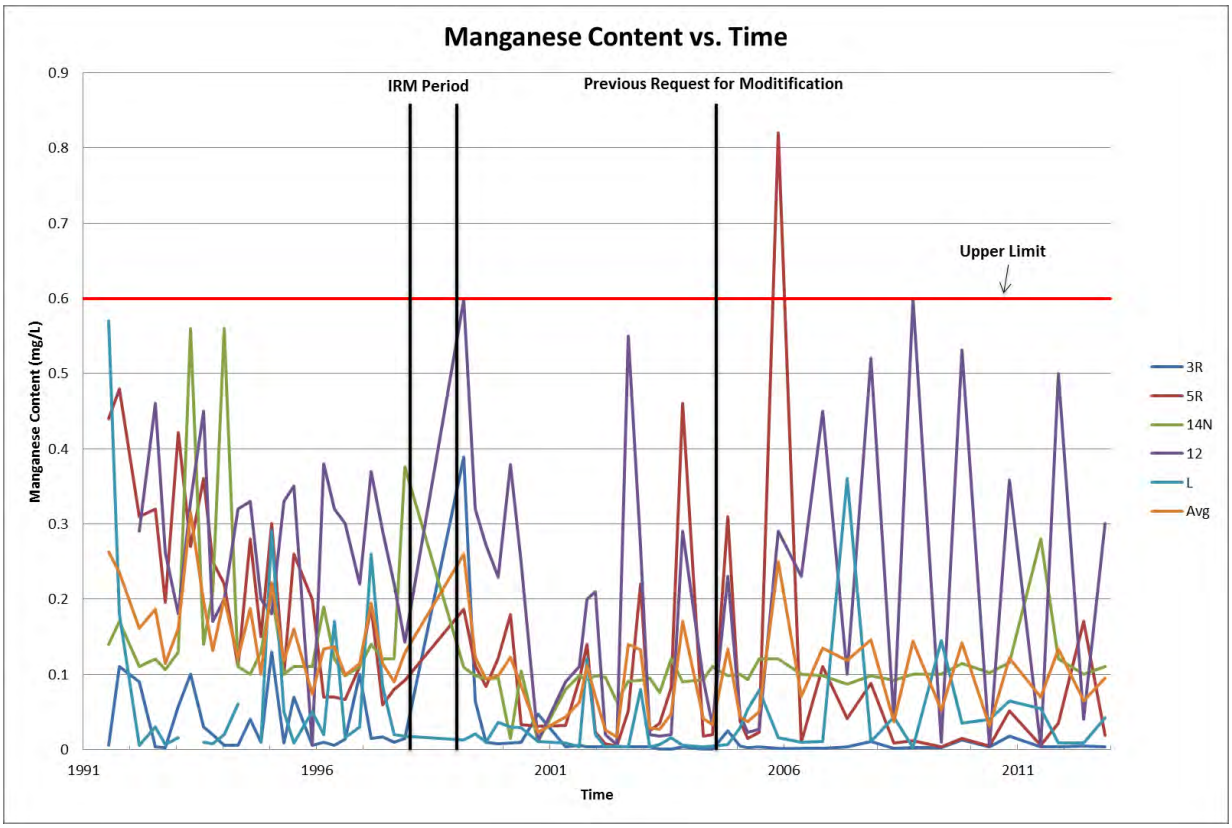
Total Hexavalent Chromium Content (mg/L)

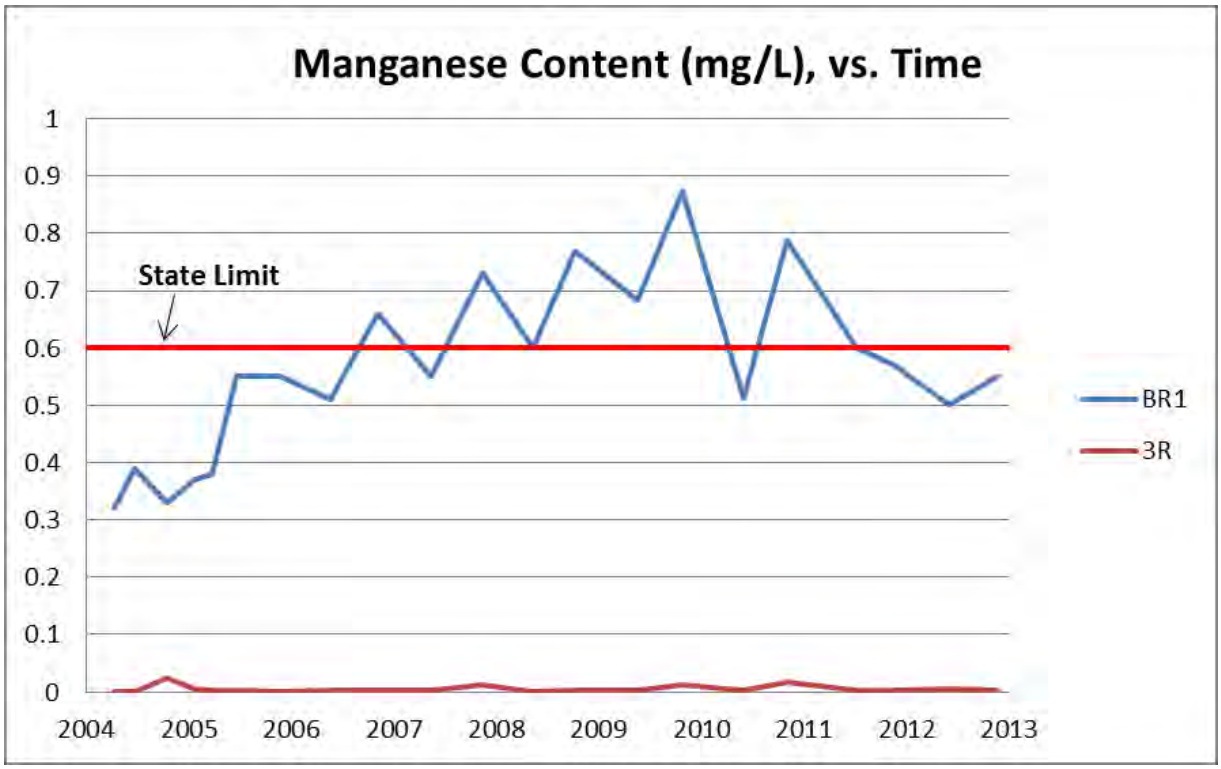


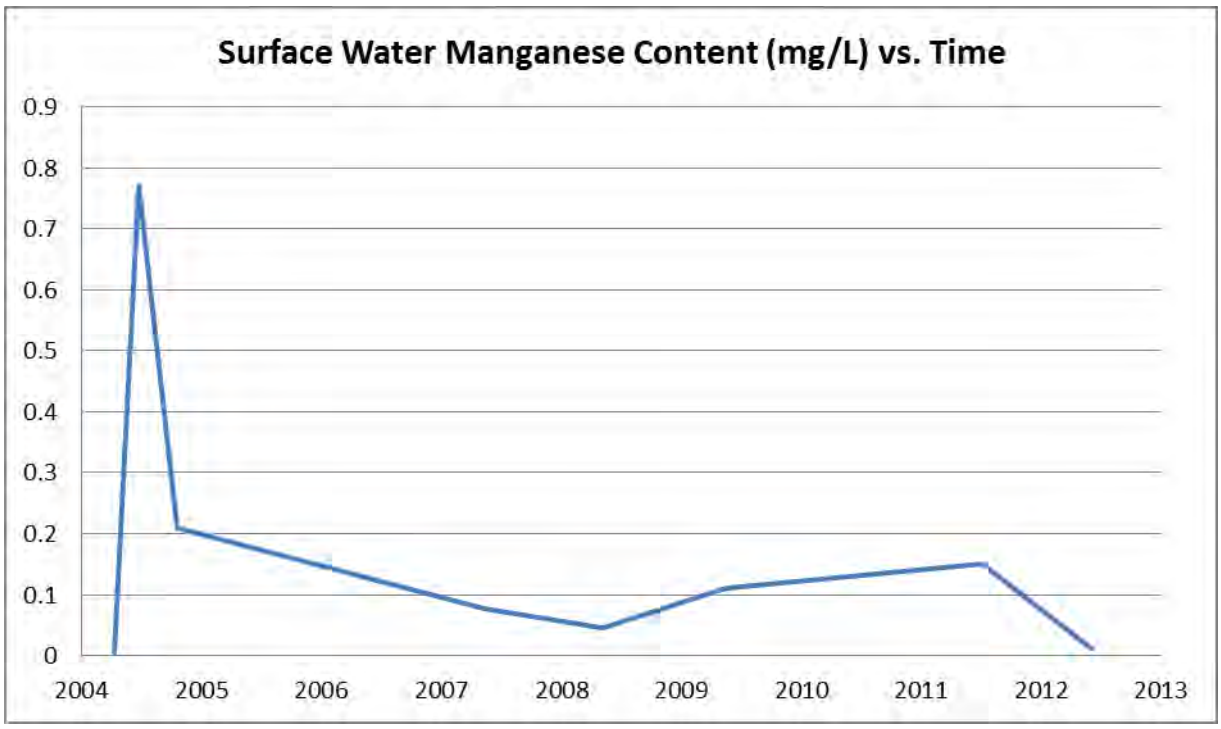

Hexavalent Chromium Content (mg/L), vs. Time
0.12
0.1
0.08
0.06
0.04
0.02
0
State Limit
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Hex. Chromium Content (mg/L) vs. Time
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
State Limit
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

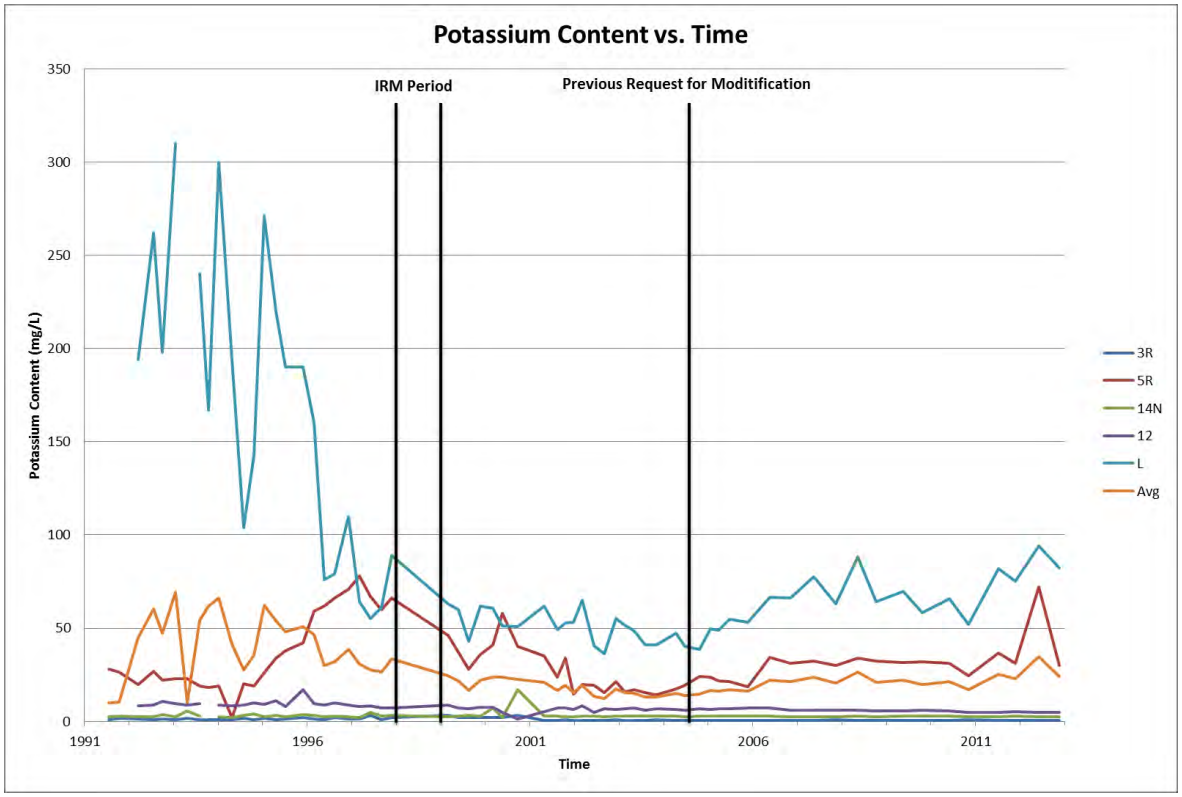
Manganese Content (mg/L)

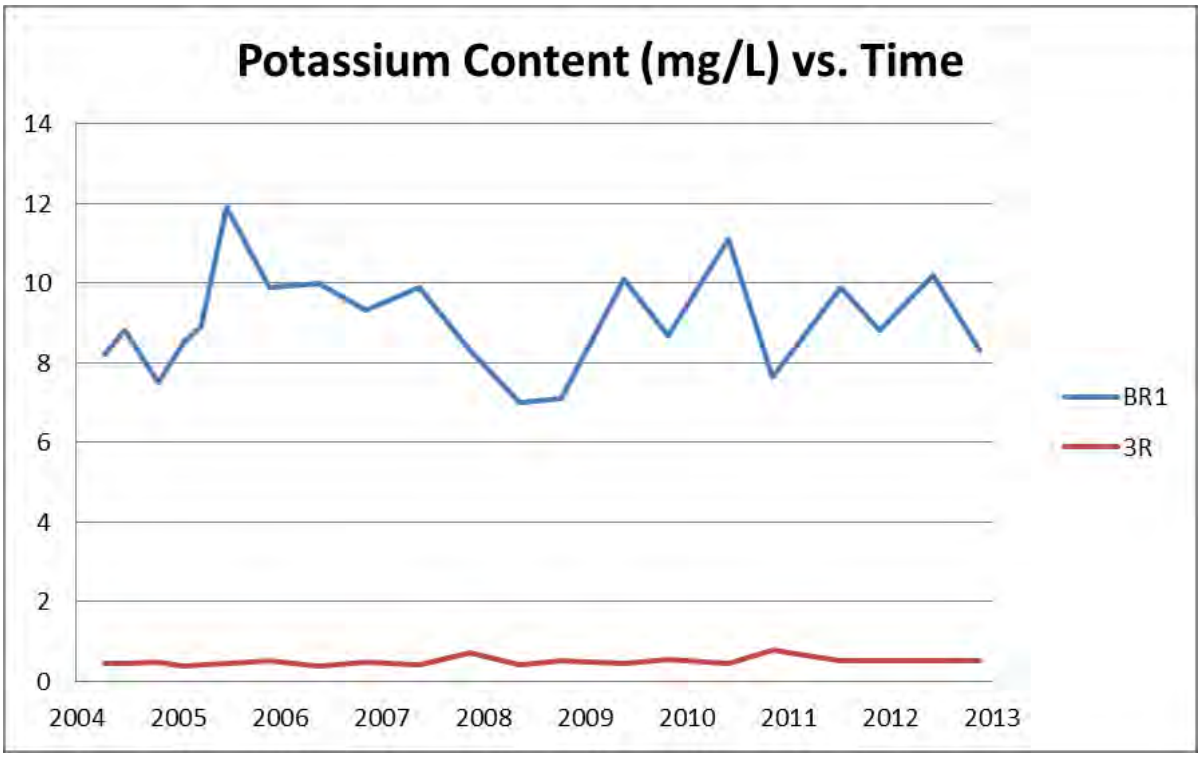


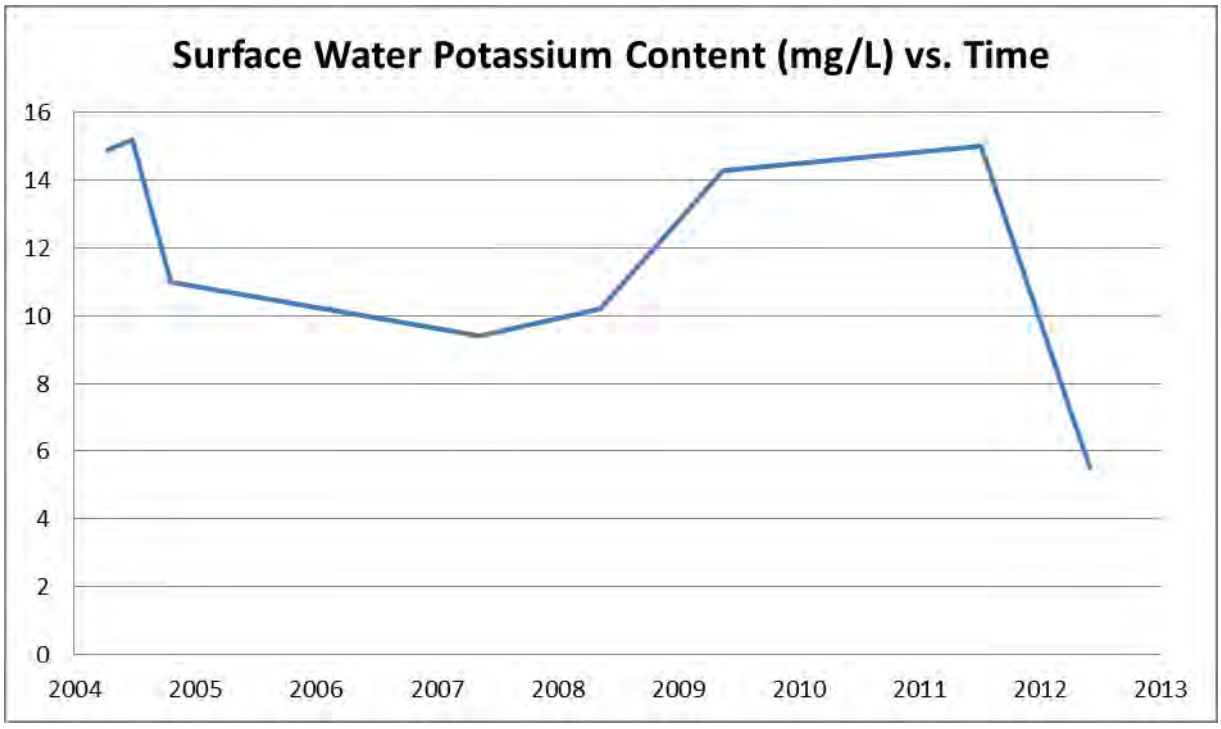




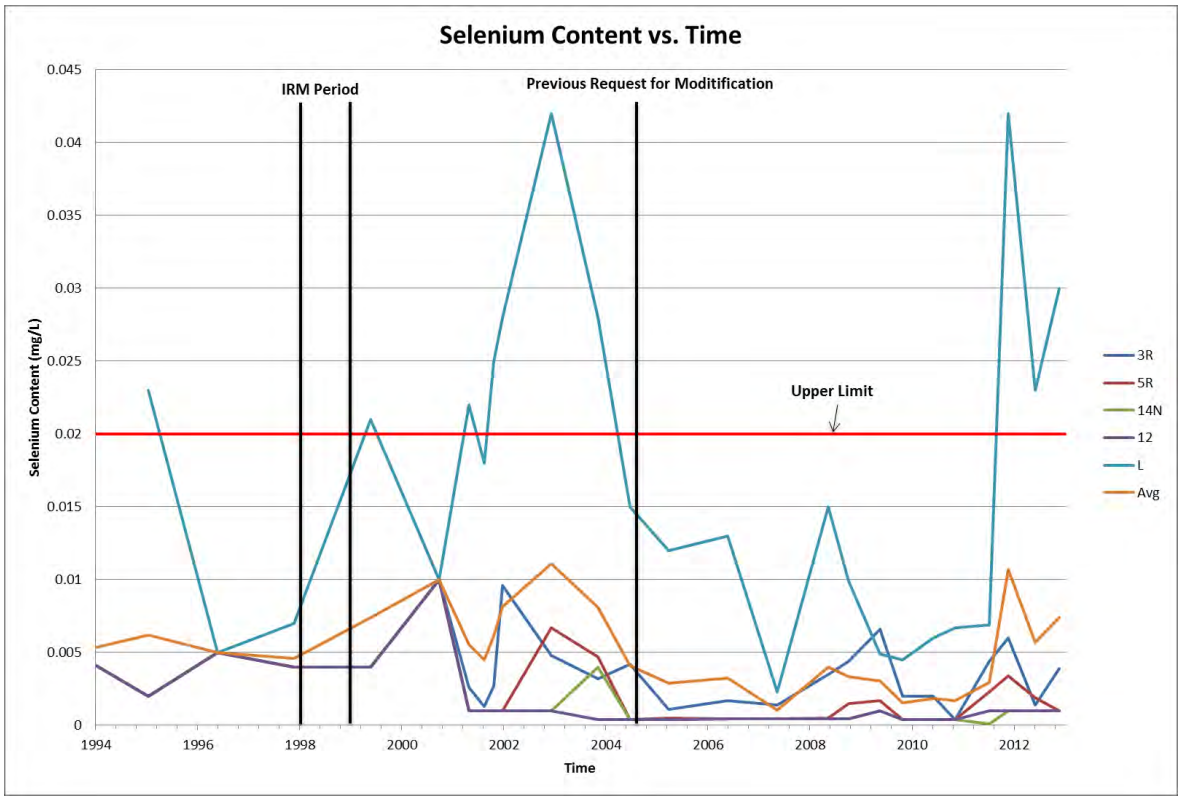
Potassium Content (mg/L)

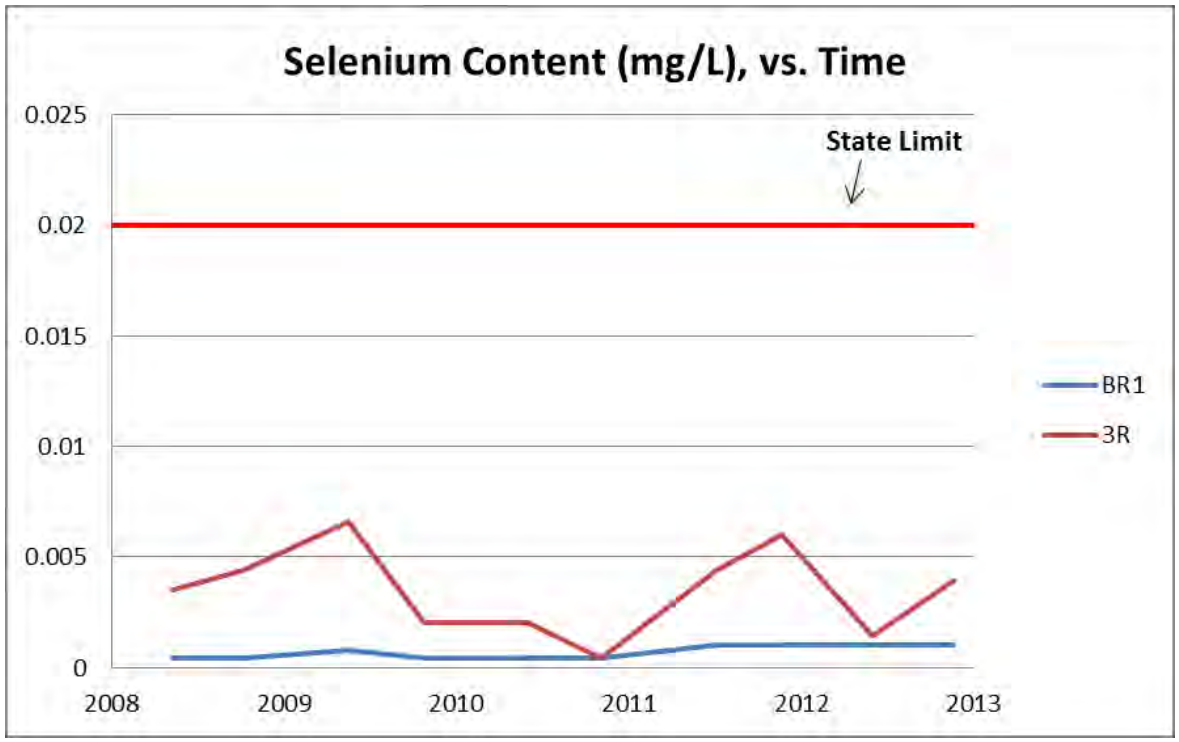


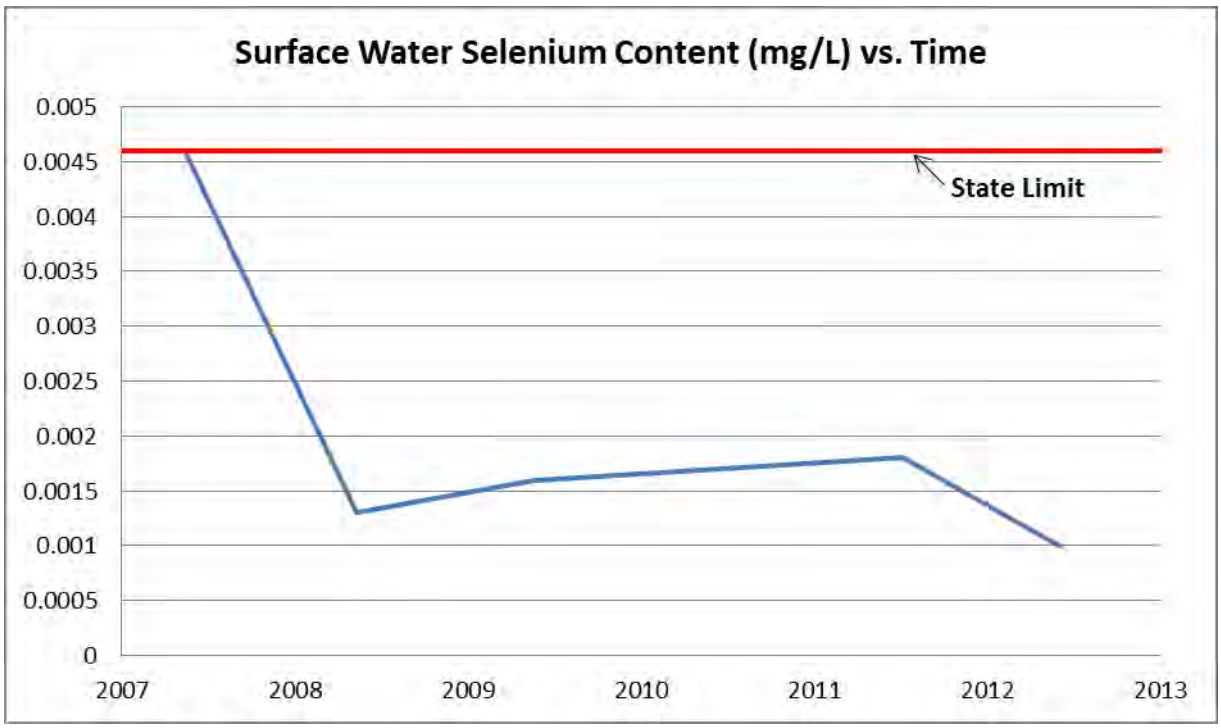

Potassium Content (mg/L) vs. Time
14
12
10
8
6
4
2
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Potassium Content (mg/L) vs. Time
16
14
12
10
8
6
4
2
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

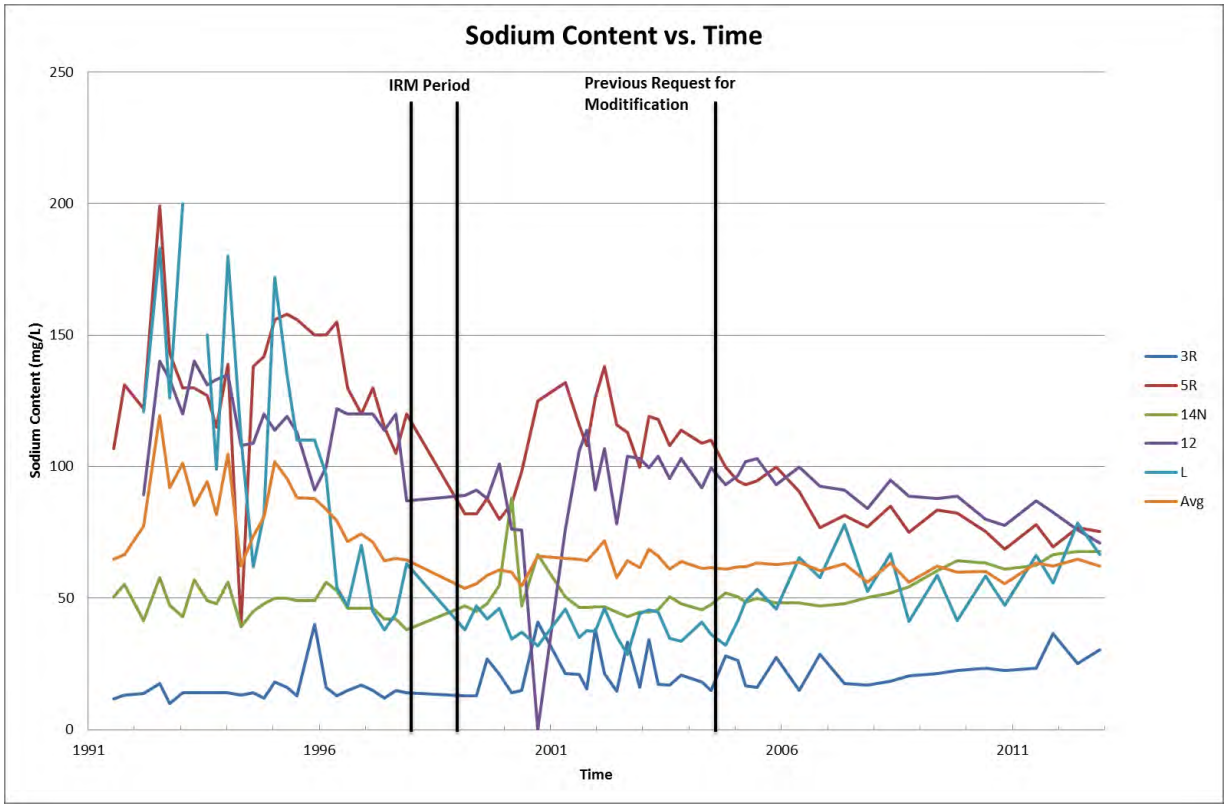
Selenium Content (mg/L)

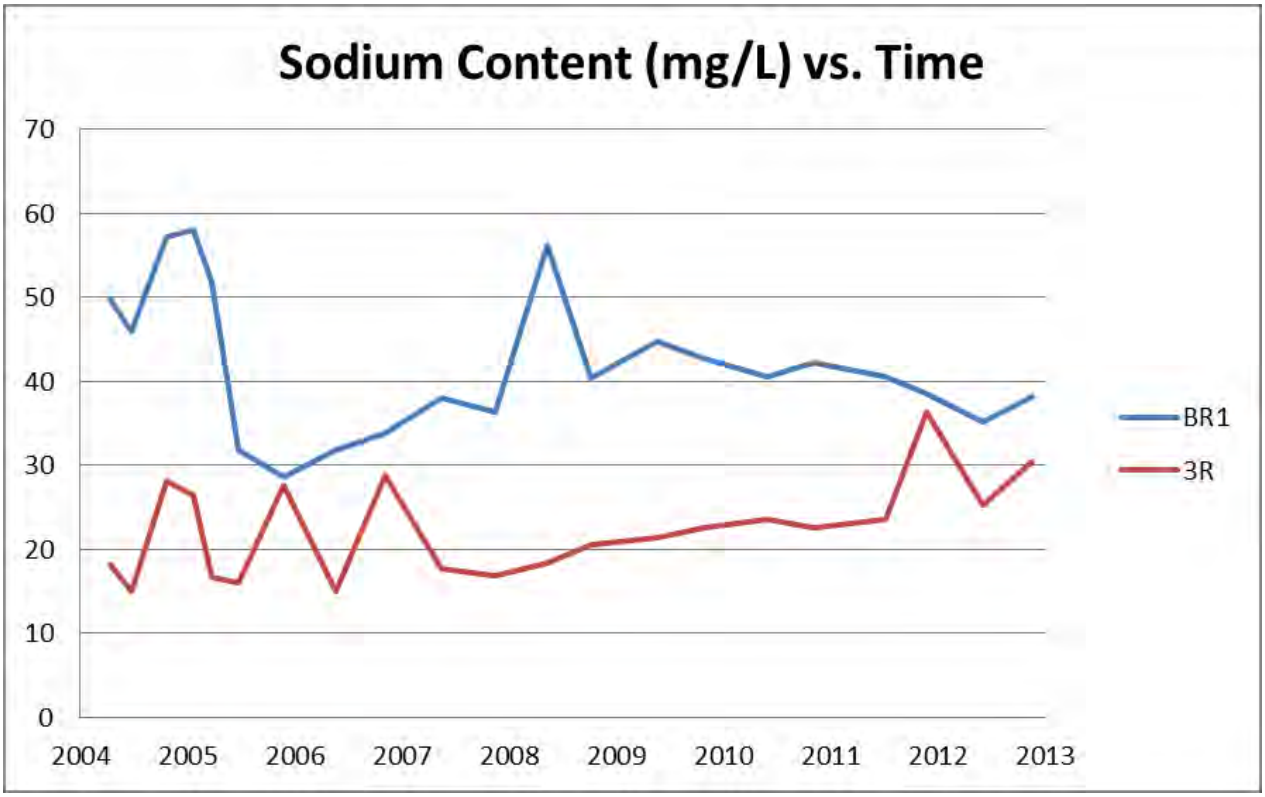


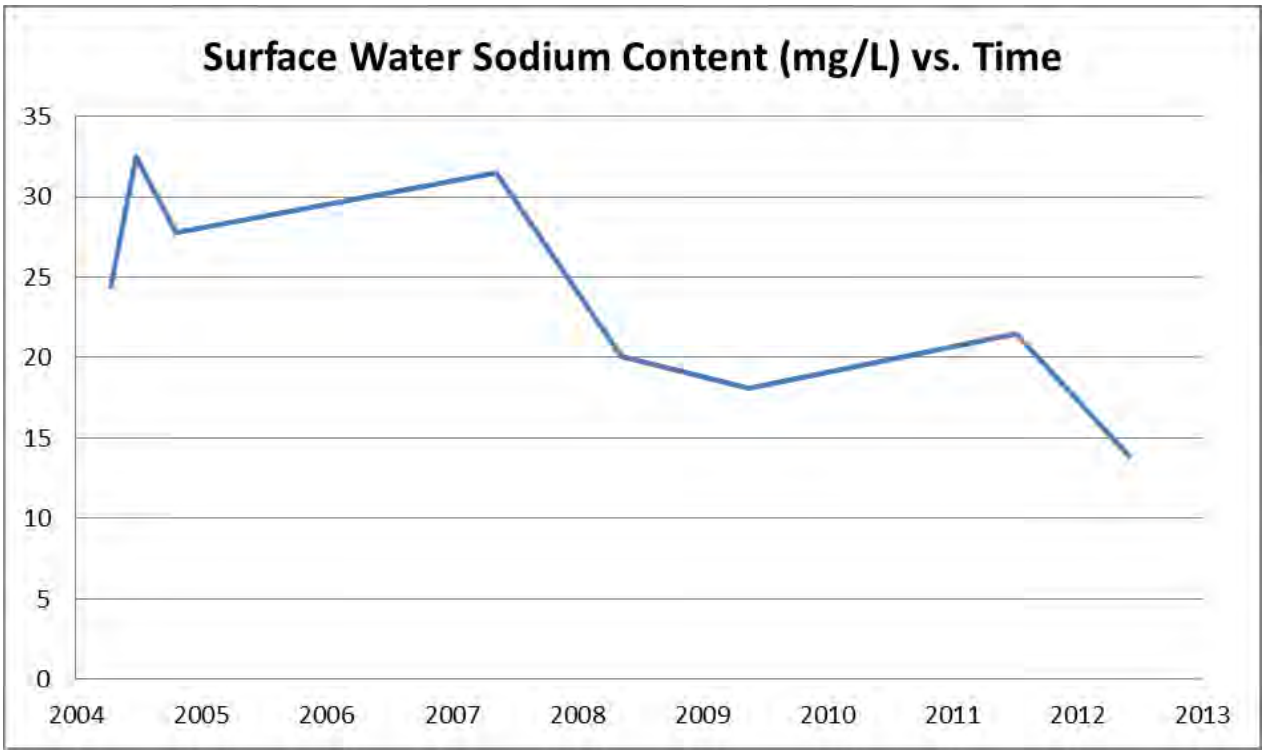




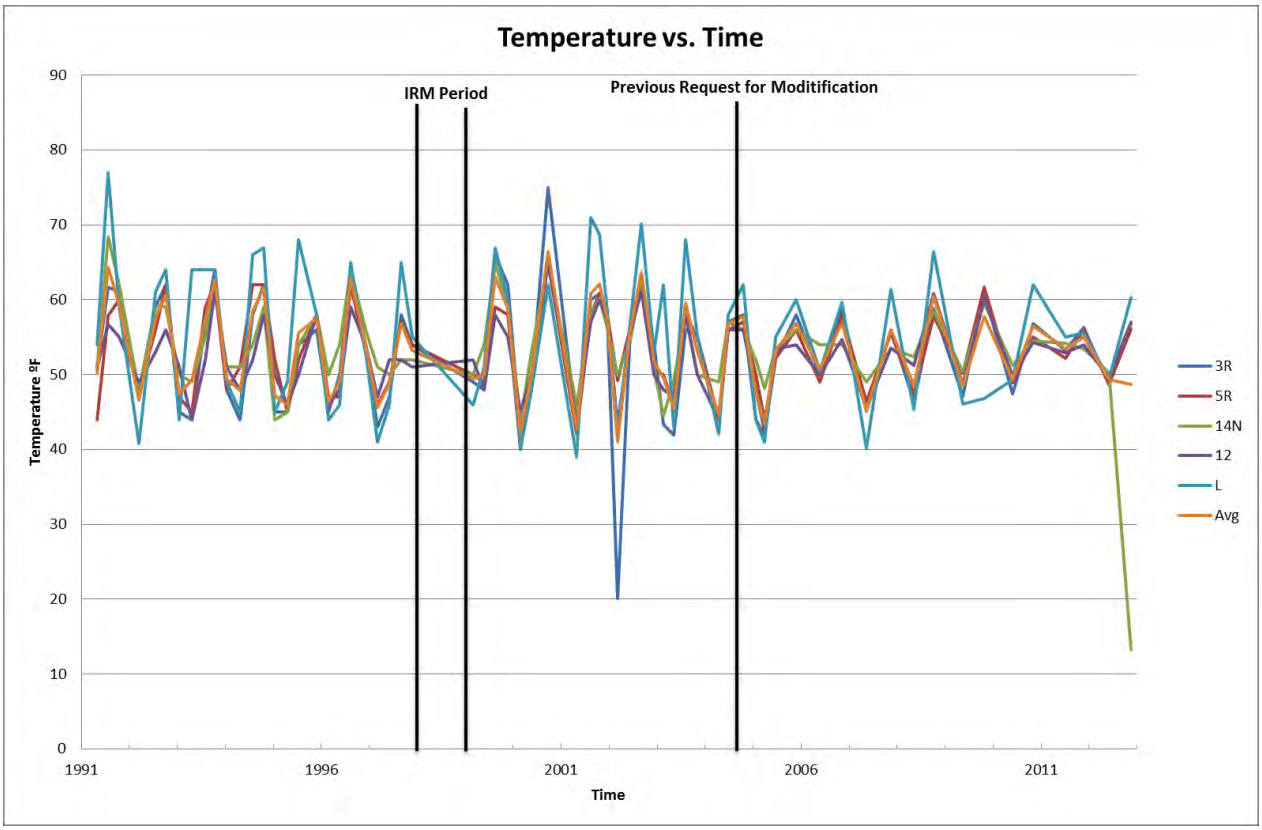
Sodium Content (mg/L)

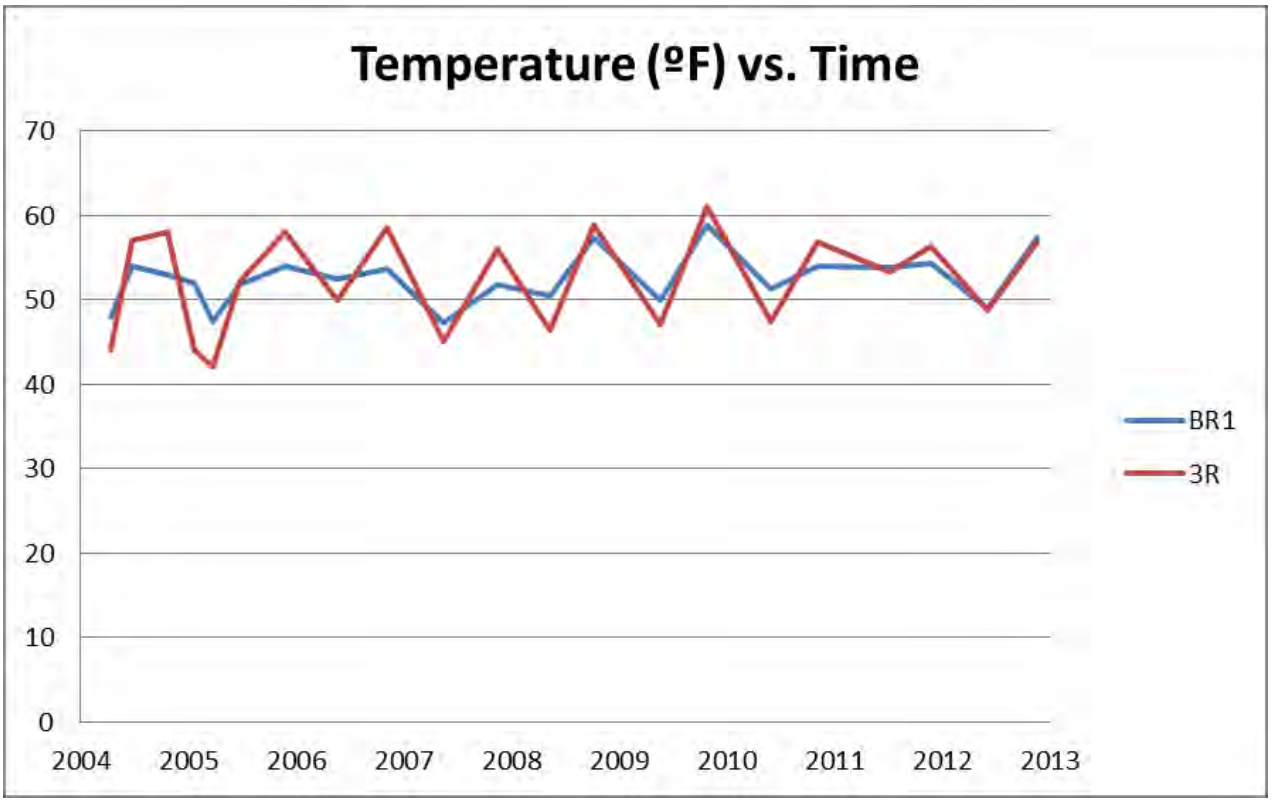


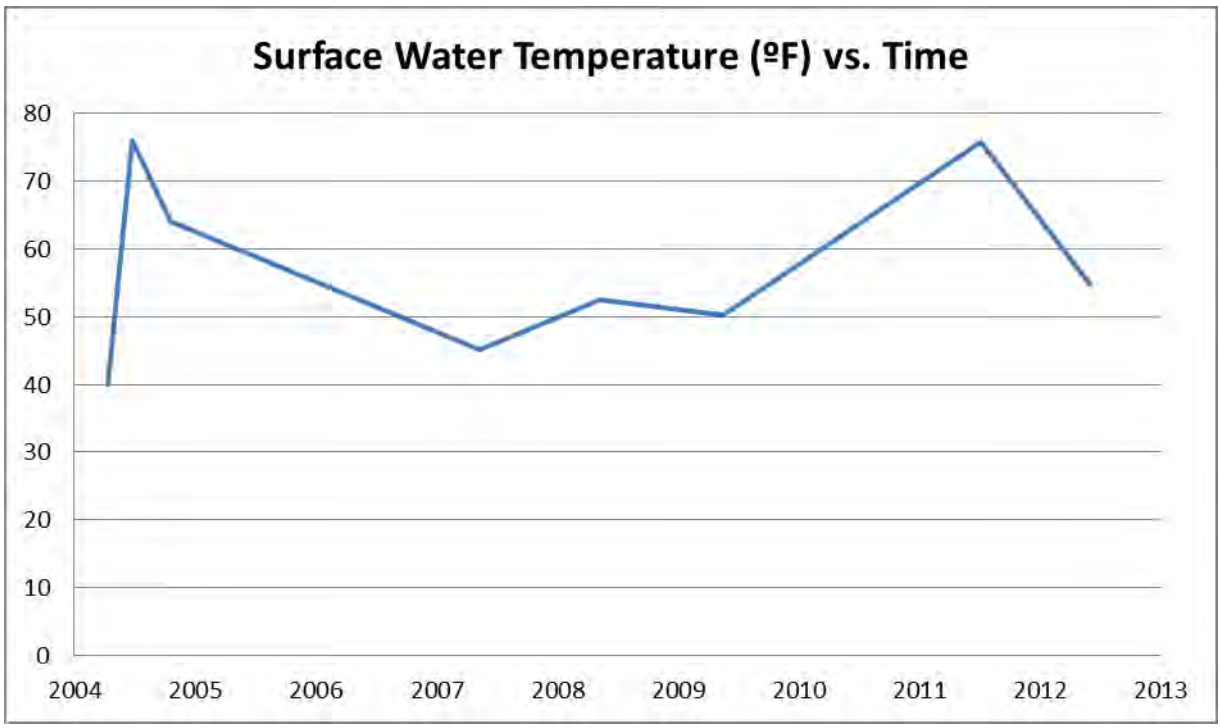

Sodium Content (mg/L) vs. Time
70
60
50
40
30
20
10
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Sodium Content (mg/L) vs. Time
35
30
25
20
15
10
5
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

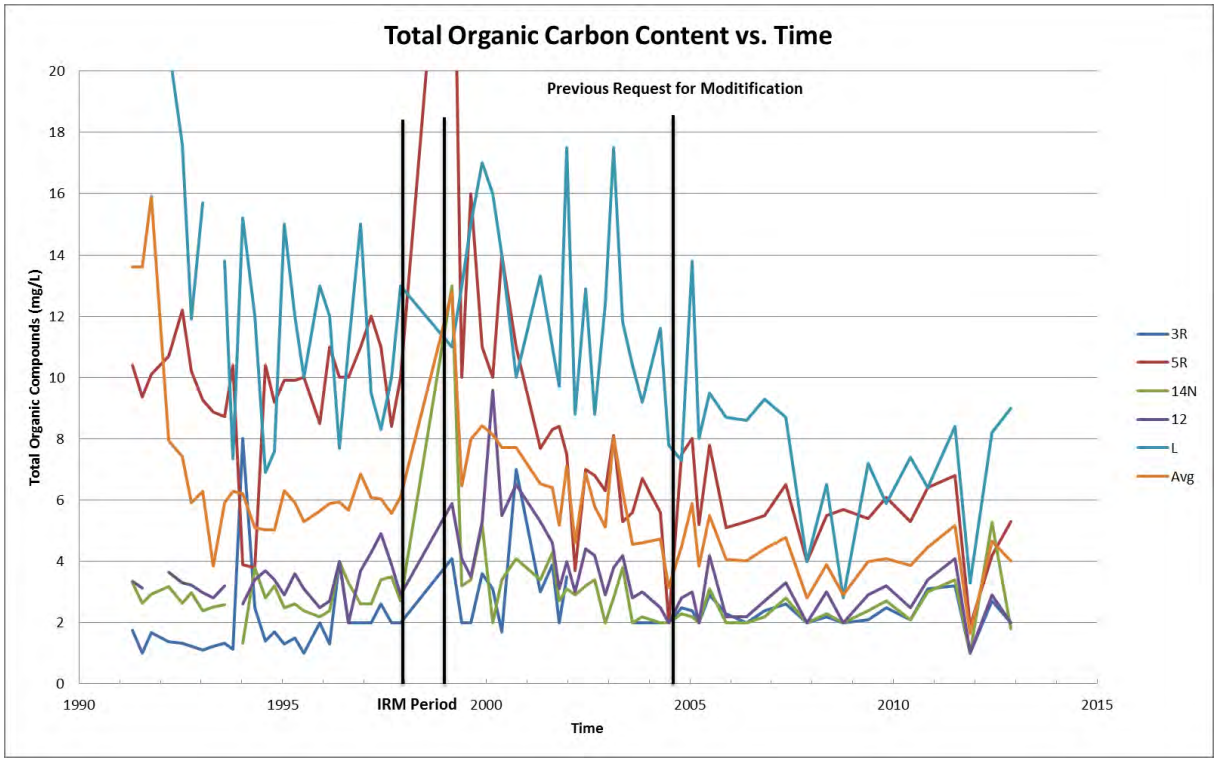
Temperature (ºF)

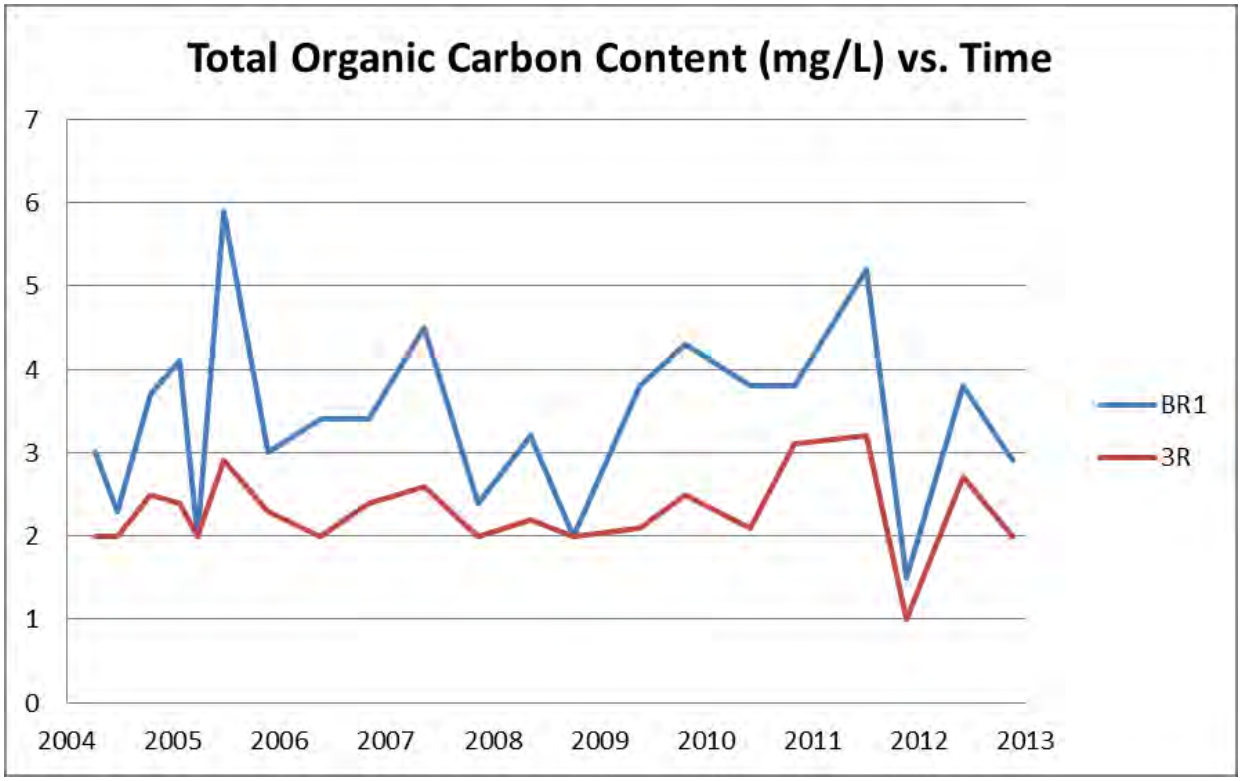


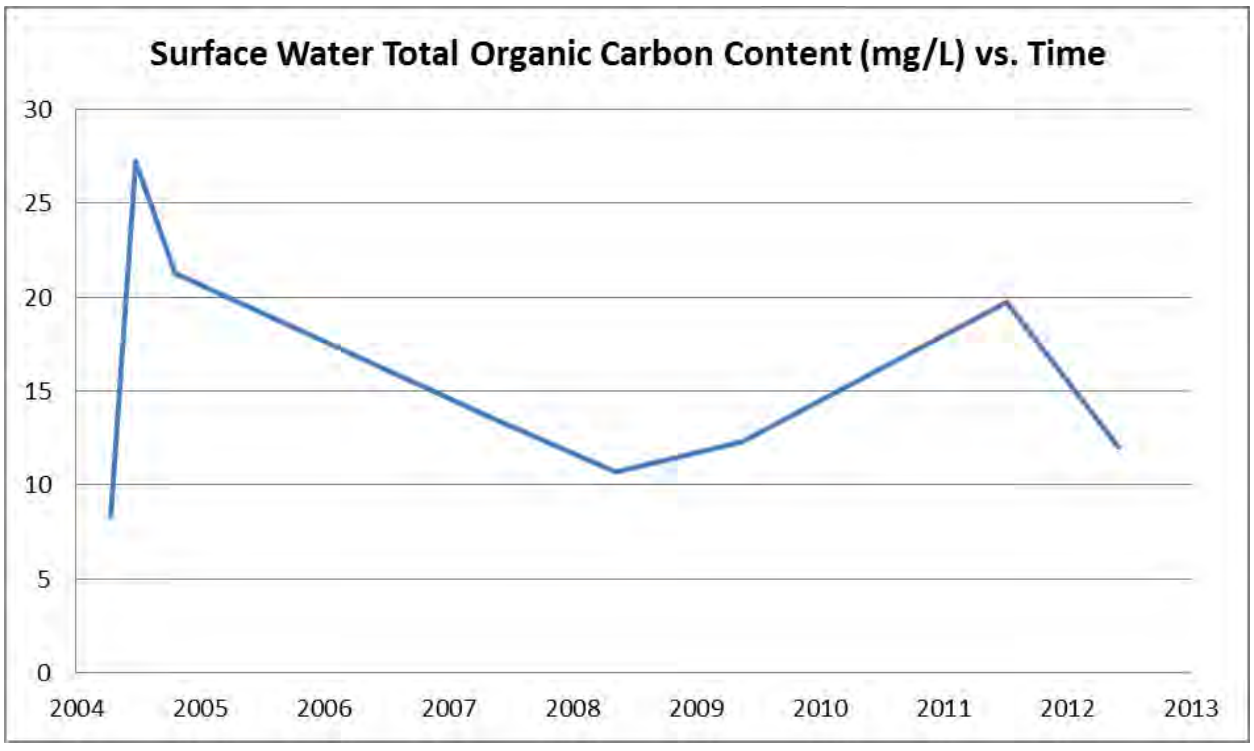




Total Organic Carbon Content (mg/L)




Total Organic Carbon Content (mg/L) vs. Time
7
6
5
4
3
2
1
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
BR1
3R


Surface Water Total Organic Carbon Content (mg/L) vs. Time
30
25
20
15
10
5
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

APPENDIX D

HISTORICAL PARAMETER STATISTICAL VALUES

Arsenic Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	3.50E-03	3.50E-03	3.50E-03	3.50E-03	1.33E-02	5.05E-03
		1.73E-03	1.73E-03	1.73E-03	1.73E-03	1.27E-02	1.72E-03
	Post-IRM, Pre-report	6.97E-03	7.30E-03	6.97E-03	6.97E-03	1.01E-02	7.66E-03
		3.49E-03	2.98E-03	3.49E-03	3.49E-03	3.57E-03	3.36E-03
	Post-IRM, Post-report	5.99E-03	6.48E-03	6.48E-03	6.48E-03	8.03E-03	6.69E-03
		2.92E-03	3.03E-03	3.03E-03	3.03E-03	2.58E-03	2.61E-03
	Post-IRM	6.30E-03	6.74E-03	6.63E-03	6.63E-03	8.69E-03	7.00E-03
		3.05E-03	2.96E-03	3.09E-03	3.09E-03	2.99E-03	2.81E-03
	Overall	5.81E-03	6.17E-03	6.09E-03	6.09E-03	9.32E-03	6.66E-03
		3.03E-03	3.02E-03	3.11E-03	3.11E-03	5.08E-03	2.73E-03
Median	*Pre-IRM*	3.50E-03	3.50E-03	3.50E-03	3.50E-03	7.00E-03	5.00E-03
	Post-IRM, Pre-report	7.45E-03	7.45E-03	7.45E-03	7.45E-03	1.03E-02	8.01E-03
	Post-IRM, Post-report	5.60E-03	5.60E-03	5.60E-03	5.60E-03	9.10E-03	6.30E-03
	Post-IRM	5.60E-03	5.60E-03	5.60E-03	5.60E-03	9.10E-03	6.30E-03
	Overall	5.00E-03	5.00E-03	5.00E-03	5.00E-03	8.30E-03	5.88E-03
Geometric Mean	*Pre-IRM*	3.16E-03	3.16E-03	3.16E-03	3.16E-03	9.93E-03	4.82E-03
	Post-IRM, Pre-report	6.03E-03	6.77E-03	6.03E-03	6.03E-03	9.57E-03	6.98E-03
	Post-IRM, Post-report	5.38E-03	5.81E-03	5.81E-03	5.81E-03	7.59E-03	6.21E-03
	Post-IRM	5.58E-03	6.10E-03	5.88E-03	5.88E-03	8.17E-03	6.44E-03
	Overall	5.05E-03	5.44E-03	5.28E-03	5.28E-03	8.39E-03	6.13E-03

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.05 mg/L
- All well measurements have been well below effluent groundwater limitation
- Most data have been below detection limit
- Downgradient well measurements are not significantly higher than upgradient measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	1.0E-02	4.3E-03	3.5E-03	3.5E-03	6.5E-03	4.3E-03
Post-IRM, Post-report	8.9E-03	3.4E-03	3.4E-03	3.4E-03	5.5E-03	4.1E-03
Post-IRM	9.3E-03	3.8E-03	3.5E-03	3.5E-03	5.7E-03	4.2E-03

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Barium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	0.0400	0.0400	0.1100	0.0540	0.0090	0.0538
		0.0141	0.0141	0.0082	0.0307	0.0096	0.0139
	Post-IRM, Pre-report	0.0467	0.0432	0.0908	0.0432	0.0308	0.0509
		0.0121	0.0055	0.0395	0.0071	0.0062	0.0088
	Post-IRM, Post-report	0.0326	0.0538	0.1172	0.0413	0.0687	0.0627
		0.0061	0.0220	0.0067	0.0064	0.0375	0.0098
	Post-IRM	0.0370	0.0505	0.1089	0.0419	0.0567	0.0590
		0.0105	0.0189	0.0249	0.0065	0.0357	0.0108
	Overall	0.0375	0.0486	0.1091	0.0440	0.0502	0.0581
		0.0109	0.0183	0.0227	0.0136	0.0372	0.0113
Median	*Pre-IRM*	0.0450	0.0450	0.1100	0.0400	0.0050	0.0518
	Post-IRM, Pre-report	0.0485	0.0420	0.1055	0.0410	0.0305	0.0539
	Post-IRM, Post-report	0.0302	0.0470	0.1200	0.0400	0.0616	0.0608
	Post-IRM	0.0330	0.0430	0.1100	0.0400	0.0460	0.0580
	Overall	0.0350	0.0430	0.1100	0.0400	0.0437	0.0574
Geometric Mean	*Pre-IRM*	0.0376	0.0376	0.1098	0.0490	0.0058	0.0525
	Post-IRM, Pre-report	0.0451	0.0429	0.0730	0.0427	0.0303	0.0502
	Post-IRM, Post-report	0.0321	0.0510	0.1171	0.0410	0.0624	0.0621
	Post-IRM	0.0358	0.0483	0.1009	0.0415	0.0496	0.0581
	Overall	0.0361	0.0462	0.1024	0.0427	0.0371	0.0571

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 2 mg/L
- All well measurements have been well below effluent groundwater limitation
- Downgradient well measurements are not significantly higher than upgradient measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	5.9E-02	3.8E-02	5.1E-02	3.6E-02	2.5E-02	4.2E-02
Post-IRM, Post-report	3.9E-02	3.2E-02	1.1E-01	3.5E-02	3.1E-02	5.3E-02
Post-IRM	4.8E-02	3.2E-02	8.4E-02	3.5E-02	2.1E-02	4.8E-02

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Lead Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	5.84E-03	4.84E-03	7.57E-03	4.52E-03	4.70E-03	5.59E-03
		3.85E-03	1.89E-03	9.11E-03	1.08E-03	1.61E-03	2.35E-03
	Post-IRM, Pre-report	1.44E-02	1.03E-02	1.01E-02	1.04E-02	9.95E-03	1.10E-02
		2.29E-02	1.63E-02	1.63E-02	1.63E-02	1.64E-02	1.65E-02
	Post-IRM, Post-report	2.95E-03	2.95E-03	2.97E-03	2.99E-03	2.96E-03	2.97E-03
		1.41E-03	1.41E-03	1.40E-03	1.38E-03	1.43E-03	1.41E-03
	Post-IRM	8.98E-03	6.80E-03	6.71E-03	6.87E-03	6.63E-03	7.20E-03
		1.74E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.25E-02
	Overall	7.77E-03	6.05E-03	7.03E-03	6.01E-03	5.93E-03	6.58E-03
		1.39E-02	9.70E-03	1.11E-02	9.86E-03	9.86E-03	9.91E-03
Median	*Pre-IRM*	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
	Post-IRM, Pre-report	1.00E-02	8.00E-03	5.00E-03	1.00E-02	5.00E-03	1.00E-02
	Post-IRM, Post-report	2.90E-03	2.90E-03	2.90E-03	2.90E-03	2.90E-03	2.90E-03
	Post-IRM	4.40E-03	4.40E-03	3.90E-03	3.80E-03	3.65E-03	4.40E-03
	Overall	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
Geometric Mean	*Pre-IRM*	5.10E-03	4.50E-03	5.38E-03	4.34E-03	4.37E-03	5.21E-03
	Post-IRM, Pre-report	7.86E-03	6.66E-03	6.45E-03	6.53E-03	6.12E-03	7.11E-03
	Post-IRM, Post-report	2.63E-03	2.63E-03	2.65E-03	2.69E-03	2.64E-03	2.65E-03
	Post-IRM	4.67E-03	4.28E-03	4.23E-03	4.28E-03	4.10E-03	4.45E-03
	Overall	4.83E-03	4.37E-03	4.63E-03	4.30E-03	4.20E-03	4.73E-03

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.05 mg/L
- Two contraventions of limit since IRM: One in 1999, and the other was because detection limit > state limit
- All measurements since 1999 have been below state limitation
- Most measurements are below detection limit
- Downgradient well measurements are not significantly different than upgradient well measurements
- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	3.74E-02	-6.00E-03	-6.24E-03	-5.97E-03	-6.46E-03	-5.44E-03
Post-IRM, Post-report	4.37E-03	1.54E-03	1.57E-03	1.61E-03	1.53E-03	1.56E-03
Post-IRM	2.64E-02	-5.47E-03	-5.57E-03	-5.45E-03	-5.68E-03	-5.32E-03

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Mercury Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	7.25E-04	7.25E-04	7.25E-04	7.25E-04	6.33E-04	7.25E-04
		3.20E-04	3.20E-04	3.20E-04	3.20E-04	3.21E-04	3.20E-04
	Post-IRM, Pre-report	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04
		4.08E-05	4.08E-05	4.08E-05	4.08E-05	4.08E-05	4.08E-05
	Post-IRM, Post-report	2.92E-04	2.92E-04	2.92E-04	2.92E-04	2.92E-04	2.92E-04
		1.75E-04	1.75E-04	1.75E-04	1.75E-04	1.75E-04	1.75E-04
	Post-IRM	3.53E-04	3.53E-04	3.53E-04	3.53E-04	3.53E-04	3.53E-04
		1.71E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04
	Overall	4.17E-04	4.17E-04	4.17E-04	4.17E-04	3.91E-04	4.17E-04
		2.42E-04	2.42E-04	2.42E-04	2.42E-04	2.11E-04	2.42E-04
Median	*Pre-IRM*	7.50E-04	7.50E-04	7.50E-04	7.50E-04	5.00E-04	7.50E-04
	Post-IRM, Pre-report	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04
	Post-IRM, Post-report	2.00E-04	2.00E-04	2.00E-04	2.00E-04	2.00E-04	2.00E-04
	Post-IRM	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04
	Overall	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04	5.00E-04
Geometric Mean	*Pre-IRM*	6.69E-04	6.69E-04	6.69E-04	6.69E-04	5.85E-04	6.69E-04
	Post-IRM, Pre-report	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04
	Post-IRM, Post-report	2.42E-04	2.42E-04	2.42E-04	2.42E-04	2.42E-04	2.42E-04
	Post-IRM	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04
	Overall	3.46E-04	3.46E-04	3.46E-04	3.46E-04	3.30E-04	3.46E-04

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.0014 mg/L
- Never any contraventions of state limitation
- Most measurements, while at detection limit, are well below state limitation
- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	5.24E-04	4.43E-04	4.43E-04	4.43E-04	4.43E-04	4.43E-04
Post-IRM, Post-report	4.68E-04	1.17E-04	1.17E-04	1.17E-04	1.17E-04	1.17E-04
Post-IRM	5.24E-04	1.81E-04	1.81E-04	1.81E-04	1.81E-04	1.81E-04

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Specific Conductance (umhos/cm)

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	906	1693	1168	1749	2555	1606
		221	506	130	319	1639	371
	Post-IRM, Pre-report	936	1120	1109	1437	958	1112
		137	131	95	159	118	95
	Post-IRM, Post-report	1073	929	1217	1363	1050	1126
		60	84	61	104	165	49
	Post-IRM	1001	1030	1160	1402	1002	1119
		127	146	96	139	148	76
	Overall	964	1291	1163	1539	1599	1311
		175	467	110	283	1265	338
Median	*Pre-IRM*	840	1647	1145	1750	1900	1561
	Post-IRM, Pre-report	1005	1155	1129	1443	930	1130
	Post-IRM, Post-report	1068	943	1194	1351	1060	1126
	Post-IRM	1030	1030	1163	1424	1016	1128
	Overall	998	1164	1157	1470	1078	1173
Geometric Mean	*Pre-IRM*	886	1624	1160	1723	2161	1567
	Post-IRM, Pre-report	925	1112	1105	1429	951	1108
	Post-IRM, Post-report	1071	926	1215	1359	1038	1125
	Post-IRM	992	1019	1156	1395	991	1116
	Overall	949	1225	1158	1516	1338	1276

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Measurements have converged to upgradient well measurements
- Overall reduction and stabilization of measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	1073	989	1014	1278	839	1017
Post-IRM, Post-report	1133	846	1156	1259	885	1078
Post-IRM	1128	883	1064	1263	854	1043

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Sulfate Content mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	93.24	316.92	170.00	231.60	321.18	223.94
		22.50	66.02	13.23	32.62	158.45	40.88
	Post-IRM, Pre-report	128.86	204.10	162.07	201.67	143.94	168.13
		36.93	33.48	28.47	45.31	63.74	25.53
	Post-IRM, Post-report	151.53	183.79	188.53	175.42	122.03	164.26
		9.89	27.72	14.32	64.08	30.82	18.64
	Post-IRM	139.63	194.45	174.64	189.20	133.53	166.29
		29.60	32.17	26.26	55.89	51.43	22.32
	Overall	121.35	242.70	172.85	205.51	200.12	189.00
		35.24	77.03	22.16	52.30	136.11	41.80
Median	*Pre-IRM*	95.00	320.00	170.00	220.00	310.00	212.67
	Post-IRM, Pre-report	138.00	199.00	165.00	205.00	142.00	174.00
	Post-IRM, Post-report	147.00	177.00	190.00	164.00	116.00	156.30
	Post-IRM	145.50	189.50	176.00	197.00	130.50	168.60
	Overall	120.00	219.00	173.00	210.00	148.50	184.12
Geometric Mean	*Pre-IRM*	75.86	310.30	169.49	229.44	282.83	220.62
	Post-IRM, Pre-report	122.68	201.59	159.23	194.39	133.09	166.03
	Post-IRM, Post-report	151.23	181.86	188.00	151.59	118.30	163.27
	Post-IRM	135.50	191.97	172.30	172.73	125.85	164.71
	Overall	107.82	231.94	171.21	192.66	167.74	184.81

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 500 mg/L
- No contraventions since 1995
- Sulfate content has been well-below limitation since IRM period and have been converging to upgradient values
- Downgradient well measurements are not significantly higher than upgradient well measurements
'- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	161	156	174	111	91	146
Post-IRM, Post-report	169	162	148	133	82	144
Post-IRM	157	166	151	153	64	147

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Tubidity, NTU

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	30.8	48.3	29.5	25.9	5.4	30.6
		31.8	144.9	26.4	28.2	5.7	39.7
	Post-IRM, Pre-report	5.8	4.4	3.2	11.1	1.6	5.4
		11.8	8.1	4.2	18.4	1.1	7.6
	Post-IRM, Post-report	1.1	2.9	4.2	2.3	1.7	2.4
		0.9	7.6	4.6	2.4	1.3	1.9
	Post-IRM	3.5	3.7	3.6	6.9	1.7	4.0
		8.7	7.8	4.3	14.0	1.2	5.8
	Overall	14.4	21.2	14.0	14.4	2.7	14.5
		24.9	92.7	21.1	22.6	3.5	28.2
Median	*Pre-IRM*	18.8	13.7	21.4	17.0	4.0	19.2
	Post-IRM, Pre-report	0.9	0.8	0.9	1.6	1.2	1.1
	Post-IRM, Post-report	0.8	1.3	2.9	1.6	1.5	2.0
	Post-IRM	0.8	0.9	1.8	1.6	1.4	1.8
	Overall	4.0	3.1	5.5	5.9	1.7	6.7
Geometric Mean	*Pre-IRM*	19.9	17.3	22.7	18.3	4.0	21.8
	Post-IRM, Pre-report	1.5	1.1	1.4	3.2	1.2	2.2
	Post-IRM, Post-report	0.8	1.0	2.7	1.5	1.3	1.8
	Post-IRM	1.1	1.0	1.9	2.3	1.3	2.0
	Overall	3.5	3.1	5.1	5.1	1.8	5.1

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Measurements have converged to upgradient well measurements
- Downgradient well measurements are not significantly higher than upgradient well measurements
  - Upgradient well measurements of 168 on 1/27/99 thrown out as outlier
'- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	2	-5	0	0	0	0
Post-IRM, Post-report	12	-4	-1	-7	0	-2
Post-IRM	39	-71	-7	-8	-1	-14

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Chloride Content mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	17.85	261.81	88.58	251.20	425.56	209.22
		1.85	64.24	8.93	43.14	534.74	114.13
	Post-IRM, Pre-report	19.25	146.67	77.14	135.15	60.84	87.81
		3.41	27.16	12.57	33.18	15.62	11.29
	Post-IRM, Post-report	31.71	107.96	99.48	150.79	102.69	98.53
		8.91	20.39	12.83	44.72	31.93	11.24
	Post-IRM	25.17	128.28	87.75	142.58	80.72	92.90
		9.07	30.88	16.87	39.37	32.31	12.37
	Overall	22.28	180.88	88.08	184.36	213.35	138.72
		7.98	80.51	14.20	66.92	369.39	91.55
Median	*Pre-IRM*	18.00	270.00	91.50	260.00	260.00	180.30
	Post-IRM, Pre-report	19.40	151.00	76.20	143.00	59.90	90.28
	Post-IRM, Post-report	35.30	100.00	97.40	158.00	96.00	96.80
	Post-IRM	21.65	127.00	85.15	146.00	71.10	91.88
	Overall	19.25	157.50	87.00	161.00	94.00	106.64
Geometric Mean	*Pre-IRM*	17.75	252.69	88.11	247.48	259.97	188.90
	Post-IRM, Pre-report	18.92	144.04	76.06	127.12	59.27	87.09
	Post-IRM, Post-report	30.27	106.24	98.71	131.69	98.01	97.89
	Post-IRM	23.65	124.65	86.08	129.27	75.26	92.06
	Overall	21.12	164.66	86.88	165.95	121.24	122.19

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 500 mg/L
- No contraventions since before IRM period
- Downgradient and leachate well measurements are still significantly higher than upgradient well measurements
- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	23	120	65	102	45	77
Post-IRM, Post-report	41	88	87	106	71	87
Post-IRM	34	97	71	103	48	81

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Chromium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	0.0055	0.0110	0.0113	0.0935	0.0270	0.0328
		0.0010	0.0020	0.0023	0.1643	0.0294	0.0395
	Post-IRM, Pre-report	0.0220	0.0033	0.0036	0.0107	0.0933	0.0266
		0.0244	0.0037	0.0044	0.0218	0.0381	0.0106
	Post-IRM, Post-report	0.0065	0.0018	0.0018	0.0025	0.0515	0.0128
		0.0031	0.0015	0.0015	0.0021	0.0505	0.0104
	Post-IRM	0.0143	0.0026	0.0027	0.0066	0.0724	0.0197
		0.0188	0.0029	0.0034	0.0158	0.0489	0.0125
	Overall	0.0139	0.0035	0.0036	0.0163	0.0685	0.0208
		0.0177	0.0038	0.0042	0.0575	0.0489	0.0153
Median	*Pre-IRM*	0.0050	0.0100	0.0100	0.0120	0.0100	0.0155
	Post-IRM, Pre-report	0.0125	0.0020	0.0020	0.0033	0.0955	0.0255
	Post-IRM, Post-report	0.0055	0.0009	0.0009	0.0014	0.0376	0.0099
	Post-IRM	0.0082	0.0019	0.0017	0.0020	0.0620	0.0169
	Overall	0.0100	0.0020	0.0020	0.0033	0.0610	0.0169
Geometric Mean	*Pre-IRM*	0.0054	0.0109	0.0112	0.0263	0.0183	0.0199
	Post-IRM, Pre-report	0.0143	0.0023	0.0023	0.0042	0.0849	0.0244
	Post-IRM, Post-report	0.0059	0.0014	0.0014	0.0019	0.0295	0.0097
	Post-IRM	0.0091	0.0018	0.0018	0.0028	0.0500	0.0154
	Overall	0.0093	0.0022	0.0022	0.0036	0.0459	0.0159

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Downgradient well measurements are not significantly higher than upgradient measurements
- Leachate measurementes still fluctuate significantly

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	4.64E-02	-3.35E-04	-8.13E-04	-1.11E-02	5.52E-02	1.60E-02
Post-IRM, Post-report	9.64E-03	3.24E-04	3.36E-04	4.22E-04	9.93E-04	2.43E-03
Post-IRM	3.31E-02	-2.79E-04	-6.49E-04	-9.19E-03	2.35E-02	7.25E-03

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

pH

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	7.08	7.84	6.98	7.04	8.51	7.48
		0.14	0.54	0.19	0.16	0.40	0.19
	Post-IRM, Pre-report	7.09	7.64	7.16	7.16	8.33	7.46
		0.41	0.39	0.32	0.26	0.48	0.26
	Post-IRM, Post-report	7.09	7.71	7.12	7.28	7.84	7.40
		0.23	0.32	0.17	0.30	0.33	0.19
	Post-IRM	7.09	7.67	7.14	7.21	8.09	7.43
		0.33	0.35	0.26	0.28	0.48	0.23
	Overall	7.09	7.74	7.08	7.14	8.26	7.45
		0.27	0.44	0.25	0.25	0.49	0.21
Median	*Pre-IRM*	7.11	7.89	6.98	7.02	8.50	7.50
	Post-IRM, Pre-report	7.15	7.71	7.12	7.13	8.30	7.50
	Post-IRM, Post-report	7.09	7.79	7.15	7.27	7.87	7.35
	Post-IRM	7.14	7.77	7.14	7.15	8.11	7.46
	Overall	7.12	7.80	7.08	7.14	8.31	7.49
Geometric Mean	*Pre-IRM*	7.08	7.82	6.98	7.04	8.50	7.48
	Post-IRM, Pre-report	7.08	7.63	7.15	7.15	8.32	7.45
	Post-IRM, Post-report	7.08	7.70	7.12	7.27	7.83	7.40
	Post-IRM	7.08	7.66	7.14	7.21	8.08	7.43
	Overall	7.08	7.73	7.07	7.14	8.25	7.45

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 8.5
- New York Effluent Groundwater Lower Limitation 6.5

- 15 contraventions of limitations Pre-IRM
- 7 contraventions of limitations Post-IRM, Pre-Report
- Zero contraventions since previous request for modification
  - One measurement of a pH of 17 thrown out as an outlier

Total Dissolved Solids, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	583.62	1081.92	811.54	1140.96	1253.82	961.86
		80.56	196.92	54.81	156.78	506.40	140.61
	Post-IRM, Pre-report	623.38	697.62	722.57	921.81	628.05	718.69
		65.30	105.28	65.05	87.84	77.83	48.89
	Post-IRM, Post-report	673.26	560.11	797.68	873.84	637.53	708.48
		84.13	66.26	61.86	59.40	124.57	37.06
	Post-IRM	647.08	632.30	758.25	899.03	632.55	713.84
		78.04	112.01	73.34	78.57	101.44	43.43
	Overall	622.08	809.42	779.24	992.08	853.00	811.54
		84.42	267.30	71.21	164.47	429.73	153.78
Median	*Pre-IRM*	560.00	1100.00	795.00	1200.00	1100.00	917.75
	Post-IRM, Pre-report	631.00	714.00	726.00	928.00	632.00	705.80
	Post-IRM, Post-report	684.00	546.00	782.00	883.00	640.00	705.80
	Post-IRM	652.50	627.50	748.50	890.00	634.50	705.80
	Overall	615.00	756.00	773.00	939.00	671.00	748.70
Geometric Mean	*Pre-IRM*	579.41	1065.14	809.87	1127.92	1156.08	952.36
	Post-IRM, Pre-report	620.12	689.88	719.62	917.83	623.29	717.15
	Post-IRM, Post-report	666.94	556.29	795.44	871.93	625.64	707.58
	Post-IRM	641.94	622.84	754.69	895.73	624.41	712.59
	Overall	616.54	769.44	775.96	978.77	776.95	798.84

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 1,000 mg/L
- No contraventions since before previous request for modification
- Well 12 values are still significantly higher than upgradient values
- Overall reduction and stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	689	592	658	834	550	670
Post-IRM, Post-report	757	494	736	814	513	671
Post-IRM	725	520	685	820	531	670

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Boron Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	0.1100	0.1100	0.1050	0.1650	0.5133	0.1814
		0.0245	0.0245	0.0058	0.0100	0.1206	0.0464
	Post-IRM, Pre-report	0.1550	0.1800	0.1230	0.1783	0.3617	0.1996
		0.0650	0.0502	0.0385	0.0691	0.0631	0.0511
	Post-IRM, Post-report	0.1841	0.1776	0.1143	0.1828	0.3327	0.1983
		0.0128	0.0112	0.0066	0.0091	0.0389	0.0111
	Post-IRM	0.1749	0.1784	0.1171	0.1814	0.3418	0.1987
		0.0384	0.0280	0.0214	0.0372	0.0480	0.0284
	Overall	0.1636	0.1665	0.1150	0.1786	0.3652	0.1957
		0.0438	0.0378	0.0200	0.0345	0.0836	0.0316
Median	*Pre-IRM*	0.1100	0.1100	0.1050	0.1600	0.5000	0.1810
	Post-IRM, Pre-report	0.1750	0.1850	0.1250	0.1900	0.3650	0.2100
	Post-IRM, Post-report	0.1800	0.1720	0.1140	0.1800	0.3300	0.2000
	Post-IRM	0.1800	0.1800	0.1140	0.1800	0.3300	0.2020
	Overall	0.1800	0.1710	0.1100	0.1800	0.3500	0.2000
Geometric Mean	*Pre-IRM*	0.1079	0.1079	0.1049	0.1648	0.5040	0.1768
	Post-IRM, Pre-report	0.1393	0.1733	0.1177	0.1601	0.3570	0.1932
	Post-IRM, Post-report	0.1837	0.1773	0.1141	0.1826	0.3306	0.1980
	Post-IRM	0.1683	0.1760	0.1153	0.1752	0.3387	0.1965
	Overall	0.1558	0.1617	0.1134	0.1733	0.3576	0.1929

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Downgradient well measurements are not significantly higher than upgradient well measurements
- Leachate sump content is still signifncantly higher than that of the upgradient well
- Other wells have shown stabilization

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	0.22	0.13	0.08	0.11	0.30	0.15
Post-IRM, Post-report	0.20	0.17	0.11	0.17	0.29	0.19
Post-IRM	0.21	0.15	0.10	0.14	0.29	0.17

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Bromide Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Pre-report	0.1000	2.2000	0.1000	0.1000	0.7400	0.6480
		N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Post-report	0.1612	1.3588	0.2829	0.2206	2.2388	0.8525
		0.2188	0.5332	0.2869	0.2402	2.0857	0.5565
	Post-IRM	0.1578	1.4056	0.2728	0.2139	2.1556	0.8411
		0.2128	0.5540	0.2817	0.2347	2.0540	0.5420
	Overall	0.1578	1.4056	0.2728	0.2139	2.1556	0.8411
		0.2128	0.5540	0.2817	0.2347	2.0540	0.5420
Median	*Pre-IRM*	N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Pre-report	0.1000	2.2000	0.1000	0.1000	0.7400	0.6480
	Post-IRM, Post-report	0.1000	1.3000	0.2100	0.1000	1.8000	0.7000
	Post-IRM	0.1000	1.3000	0.1550	0.1000	1.7000	0.6900
	Overall	0.1000	1.3000	0.1550	0.1000	1.7000	0.6900
Geometric Mean	*Pre-IRM*	N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Pre-report	0.1000	2.2000	0.1000	0.1000	0.7400	0.6480
	Post-IRM, Post-report	0.1206	1.2740	0.2004	0.1592	1.8326	0.7578
	Post-IRM	0.1193	1.3132	0.1928	0.1551	1.7426	0.7513
	Overall	0.1193	1.3132	0.1928	0.1551	1.7426	0.7513

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Leachate and most downgradient well measurements are not significantly higher than upgradient well measurements
- Well 5R content is still signifncantly higher than that of the upgradient well

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	N/A	N/A	N/A	N/A	N/A	N/A
Post-IRM, Post-report	0.38	0.83	0.00	-0.02	0.15	0.30
Post-IRM	0.37	0.85	-0.01	-0.02	0.10	0.30

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Chemical Oxygen Demand (mg/L)

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	3.31	28.64	7.12	7.94	44.45	18.29
		2.84	11.16	4.87	6.20	31.92	9.22
	Post-IRM, Pre-report	6.81	25.31	5.98	9.43	32.35	15.98
		4.08	7.13	2.89	5.26	8.28	3.57
	Post-IRM, Post-report	5.98	20.63	7.24	10.61	26.88	14.41
		1.93	5.98	3.14	4.31	8.80	3.93
	Post-IRM	6.43	23.09	6.58	9.99	29.75	15.23
		3.25	6.94	3.04	4.81	8.87	3.78
	Overall	5.18	25.28	6.79	9.20	35.41	16.44
		3.44	9.18	3.84	5.43	21.95	6.60
Median	*Pre-IRM*	1.66	31.00	5.32	5.50	34.10	17.08
	Post-IRM, Pre-report	5.00	27.00	5.00	6.90	31.00	15.58
	Post-IRM, Post-report	5.00	20.90	5.00	10.20	25.20	13.58
	Post-IRM	5.00	22.15	5.00	9.70	30.50	15.11
	Overall	5.00	25.75	5.00	7.60	31.60	15.34
Geometric Mean	*Pre-IRM*	2.31	25.08	5.28	5.74	35.95	16.44
	Post-IRM, Pre-report	6.08	24.25	5.62	8.25	31.18	15.58
	Post-IRM, Post-report	5.76	19.42	6.70	9.72	25.37	13.86
	Post-IRM	5.93	21.82	6.11	8.92	28.27	14.74
	Overall	4.07	23.05	5.77	7.53	31.01	15.39

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Outlier omitted: Well 3R, 6/3/2011, TOC = 146 mG/L
- Wells 5R and L continue to have significantly higher measurements than upgradient well

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	10.89	18.18	3.09	4.17	24.06	12.41
Post-IRM, Post-report	7.91	14.65	4.10	6.30	18.08	10.48
Post-IRM	9.68	16.15	3.54	5.18	20.89	11.45

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Total Hexavalent Chromium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	0.0325	0.0325	0.0325	0.0325	0.0371	0.0328
		0.0139	0.0139	0.0139	0.0139	0.0125	0.0141
	Post-IRM, Pre-report	0.0464	0.0400	0.0400	0.0449	0.0916	0.0510
		0.0201	0.0000	0.0000	0.0147	0.0424	0.0100
	Post-IRM, Post-report	0.0326	0.0325	0.0325	0.0326	0.0548	0.0370
		0.0133	0.0134	0.0134	0.0132	0.0349	0.0124
	Post-IRM	0.0404	0.0368	0.0368	0.0393	0.0743	0.0450
		0.0186	0.0094	0.0094	0.0152	0.0428	0.0130
	Overall	0.0390	0.0360	0.0360	0.0391	0.0678	0.0433
		0.0180	0.0103	0.0103	0.0156	0.0402	0.0139
Median	*Pre-IRM*	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
	Post-IRM, Pre-report	0.0400	0.0400	0.0400	0.0400	0.0860	0.0486
	Post-IRM, Post-report	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
	Post-IRM	0.0400	0.0400	0.0400	0.0400	0.0535	0.0421
	Overall	0.0400	0.0400	0.0400	0.0400	0.0502	0.0420
Geometric Mean	*Pre-IRM*	0.0283	0.0283	0.0283	0.0283	0.0339	0.0285
	Post-IRM, Pre-report	0.0441	0.0400	0.0400	0.0434	0.0819	0.0501
	Post-IRM, Post-report	0.0285	0.0283	0.0283	0.0286	0.0487	0.0346
	Post-IRM	0.0365	0.0344	0.0344	0.0359	0.0641	0.0427
	Overall	0.0349	0.0332	0.0332	0.0352	0.0580	0.0402

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.1 mg/L
- Data still fluctuates and there have still been some contraventions of the effluent groundwater limit

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	0.066	0.040	0.040	0.030	0.049	0.041
Post-IRM, Post-report	0.046	0.019	0.019	0.019	0.020	0.025
Post-IRM	0.059	0.027	0.027	0.024	0.032	0.032

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Redox Potential (mV)

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	89.77	67.35	53.92	-19.32	43.83	45.82
		70.41	62.91	54.78	85.08	68.44	48.55
	Post-IRM, Pre-report	152.38	121.05	119.10	108.81	126.33	125.53
		80.92	87.92	146.75	124.17	87.63	92.07
	Post-IRM, Post-report	75.21	56.63	35.32	-1.11	57.89	44.79
		69.35	49.48	61.69	88.14	39.53	49.68
	Post-IRM	115.73	90.45	79.30	56.60	93.83	87.18
		84.26	78.46	120.81	120.76	76.53	84.58
	Overall	105.50	81.35	69.54	27.40	75.08	70.89
		79.56	73.11	100.87	113.95	77.01	74.92
Median	*Pre-IRM*	95.00	70.00	51.00	8.00	60.50	52.50
	Post-IRM, Pre-report	126.00	96.00	55.00	90.00	88.00	85.60
	Post-IRM, Post-report	82.00	59.00	29.00	12.00	57.00	52.20
	Post-IRM	110.50	84.50	45.00	49.00	75.00	68.40
	Overall	100.00	78.00	50.00	27.00	68.00	61.50
Geometric Mean	*Pre-IRM*	N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Pre-report	N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM, Post-report	N/A	N/A	N/A	N/A	N/A	N/A
	Post-IRM	N/A	N/A	N/A	N/A	N/A	N/A
	Overall	N/A	N/A	N/A	N/A	N/A	N/A

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Data continues to fluctuate significantly

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	233.30	33.13	-27.65	-15.36	38.71	33.46
Post-IRM, Post-report	144.56	7.15	-26.37	-89.24	18.36	-4.89
Post-IRM	199.99	11.99	-41.51	-64.16	17.30	2.60

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Manganese Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	3.5E-02	2.2E-01	1.8E-01	2.7E-01	8.4E-02	1.6E-01
		4.0E-02	1.3E-01	1.3E-01	1.1E-01	1.3E-01	5.8E-02
	Post-IRM, Pre-report	2.7E-02	9.3E-02	8.7E-02	1.9E-01	2.1E-02	8.4E-02
		8.4E-02	1.1E-01	2.7E-02	1.7E-01	2.9E-02	6.1E-02
	Post-IRM, Post-report	5.6E-03	9.4E-02	1.1E-01	2.3E-01	5.4E-02	9.8E-02
		6.5E-03	1.9E-01	4.2E-02	2.1E-01	8.2E-02	5.6E-02
	Post-IRM	1.7E-02	9.3E-02	9.9E-02	2.1E-01	3.6E-02	9.1E-02
		6.2E-02	1.5E-01	3.7E-02	1.9E-01	6.2E-02	5.8E-02
	Overall	2.4E-02	1.4E-01	1.3E-01	2.3E-01	5.4E-02	1.2E-01
		5.5E-02	1.5E-01	9.2E-02	1.7E-01	9.6E-02	6.7E-02
Median	*Pre-IRM*	1.5E-02	2.0E-01	1.2E-01	2.9E-01	2.0E-02	1.4E-01
	Post-IRM, Pre-report	3.0E-03	5.1E-02	9.4E-02	2.0E-01	1.0E-02	7.1E-02
	Post-IRM, Post-report	3.0E-03	2.3E-02	1.0E-01	2.3E-01	3.5E-02	9.5E-02
	Post-IRM	3.0E-03	3.5E-02	9.8E-02	2.1E-01	1.5E-02	7.8E-02
	Overall	5.0E-03	8.8E-02	1.0E-01	2.3E-01	2.0E-02	1.2E-01
Geometric Mean	*Pre-IRM*	1.7E-02	1.8E-01	1.5E-01	2.3E-01	3.3E-02	1.5E-01
	Post-IRM, Pre-report	4.2E-03	5.3E-02	7.7E-02	9.8E-02	1.1E-02	6.5E-02
	Post-IRM, Post-report	3.7E-03	3.0E-02	1.1E-01	9.3E-02	2.7E-02	8.4E-02
	Post-IRM	3.9E-03	4.1E-02	9.1E-02	9.6E-02	1.7E-02	7.3E-02
	Overall	7.0E-03	7.2E-02	1.1E-01	1.3E-01	2.1E-02	9.6E-02

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.6 mg/L
- Contravention in 2005 (Well 5R), measurement at limit in 2008 (Well 12)
- Data still fluctuates significantly
- Visually, downgradient wells seem to have significantly higher measurements than upgradient well

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	0.112	-0.012	0.059	0.015	-0.008	0.023
Post-IRM, Post-report	0.012	-0.098	0.071	0.013	-0.028	0.043
Post-IRM	0.079	-0.057	0.062	0.015	-0.025	0.032

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Potassium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	1.327	37.391	2.905	9.203	167.136	40.723
		0.485	21.672	0.879	1.943	79.861	17.232
	Post-IRM, Pre-report	1.067	27.052	3.508	6.400	51.124	17.830
		0.854	12.456	3.245	1.555	8.706	4.023
	Post-IRM, Post-report	0.485	31.174	2.608	5.867	65.779	21.183
		0.101	11.166	0.102	0.799	14.710	4.709
	Post-IRM	0.790	29.010	3.080	6.147	58.085	19.422
		0.682	11.894	2.369	1.268	13.917	4.627
	Overall	0.997	32.233	3.014	7.263	96.781	27.615
		0.664	16.710	1.940	2.133	71.320	15.279
Median	*Pre-IRM*	1.100	26.900	2.600	8.800	178.500	41.448
	Post-IRM, Pre-report	0.610	21.400	2.600	6.800	51.000	16.702
	Post-IRM, Post-report	0.470	31.200	2.600	5.900	65.800	21.130
	Post-IRM	0.500	30.100	2.600	6.300	55.050	19.636
	Overall	0.770	28.000	2.600	7.000	64.000	22.196
Geometric Mean	*Pre-IRM*	1.262	30.319	2.799	9.054	146.869	36.019
	Post-IRM, Pre-report	0.818	24.618	2.986	6.054	50.404	17.403
	Post-IRM, Post-report	0.476	29.829	2.606	5.816	64.192	20.729
	Post-IRM	0.633	26.969	2.799	5.940	56.539	18.911
	Overall	0.825	28.211	2.799	6.928	79.334	24.229

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Downgradient and leachate well measurements are still significantly higher than upgradient well measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	1.9	14.6	0.3	4.8	42.4	13.8
Post-IRM, Post-report	0.6	20.0	2.5	5.1	51.1	16.5
Post-IRM	1.5	17.1	0.7	4.9	44.2	14.8

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Selenium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	4.00E-03	4.00E-03	4.00E-03	4.00E-03	1.17E-02	5.20E-03
		1.41E-03	1.41E-03	1.41E-03	1.41E-03	9.87E-03	6.93E-04
	Post-IRM, Pre-report	4.71E-03	3.31E-03	2.60E-03	2.20E-03	2.32E-02	7.21E-03
		3.06E-03	3.33E-03	3.09E-03	3.12E-03	9.20E-03	2.39E-03
	Post-IRM, Post-report	2.98E-03	1.14E-03	5.74E-04	6.43E-04	1.36E-02	3.78E-03
		1.96E-03	9.55E-04	3.09E-04	2.94E-04	1.16E-02	2.70E-03
	Post-IRM	3.69E-03	2.03E-03	1.40E-03	1.28E-03	1.75E-02	5.18E-03
		2.55E-03	2.43E-03	2.17E-03	2.09E-03	1.15E-02	3.06E-03
	Overall	3.74E-03	2.33E-03	1.80E-03	1.70E-03	1.68E-02	5.19E-03
		2.39E-03	2.40E-03	2.26E-03	2.22E-03	1.13E-02	2.81E-03
Median	*Pre-IRM*	4.50E-03	4.50E-03	4.50E-03	4.50E-03	7.00E-03	5.00E-03
	Post-IRM, Pre-report	4.00E-03	1.00E-03	1.00E-03	1.00E-03	2.20E-02	7.40E-03
	Post-IRM, Post-report	2.00E-03	5.00E-04	4.40E-04	4.40E-04	9.90E-03	3.04E-03
	Post-IRM	3.35E-03	1.00E-03	1.00E-03	1.00E-03	1.50E-02	4.27E-03
	Overall	3.70E-03	1.25E-03	1.00E-03	1.00E-03	1.50E-02	4.80E-03
Geometric Mean	*Pre-IRM*	3.76E-03	3.76E-03	3.76E-03	3.76E-03	9.30E-03	5.17E-03
	Post-IRM, Pre-report	3.93E-03	2.00E-03	1.59E-03	1.23E-03	2.16E-02	6.85E-03
	Post-IRM, Post-report	2.34E-03	8.48E-04	4.91E-04	5.86E-04	9.96E-03	3.09E-03
	Post-IRM	2.89E-03	1.20E-03	7.93E-04	7.93E-04	1.37E-02	4.28E-03
	Overall	3.01E-03	1.43E-03	1.01E-03	1.01E-03	1.31E-02	4.40E-03

* Subtended with artithmetic standard deviation

Comments

- New York Effluent Groundwater Upper Limitation 0.02 mg/L
- Leachate continues to show measurements above the limit

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	7.77E-03	-1.43E-05	-4.89E-04	-9.18E-04	1.40E-02	4.81E-03
Post-IRM, Post-report	4.94E-03	1.90E-04	2.65E-04	3.49E-04	1.94E-03	1.08E-03
Post-IRM	6.25E-03	-4.03E-04	-7.72E-04	-8.10E-04	5.98E-03	2.13E-03

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Sodium Content, mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	15.2	132.3	48.2	116.2	104.5	82.1
		5.5	28.0	5.6	15.7	49.8	15.1
	Post-IRM, Pre-report	21.3	108.0	49.9	94.7	39.2	62.3
		8.5	16.9	10.1	11.4	5.5	4.7
	Post-IRM, Post-report	23.0	83.0	55.9	88.9	55.6	61.3
		5.7	9.8	7.6	8.8	12.7	2.7
	Post-IRM	22.1	96.1	52.7	91.9	47.0	61.8
		7.2	18.7	9.4	10.5	12.6	3.9
	Overall	19.4	110.0	51.0	101.2	67.4	69.6
		7.4	28.7	8.4	17.3	41.5	13.9
Median	*Pre-IRM*	14.0	130.0	48.0	120.0	104.5	80.8
	Post-IRM, Pre-report	18.2	110.0	46.7	97.6	37.7	61.6
	Post-IRM, Post-report	22.6	81.4	52.1	88.9	55.9	62.2
	Post-IRM	21.0	93.9	48.4	92.0	45.2	62.1
	Overall	16.9	110.0	48.2	99.6	48.1	64.3
Geometric Mean	*Pre-IRM*	14.6	128.2	47.9	115.1	92.8	80.8
	Post-IRM, Pre-report	20.0	106.7	49.2	94.1	38.8	62.2
	Post-IRM, Post-report	22.4	82.5	55.4	88.5	54.2	61.2
	Post-IRM	21.1	94.4	52.0	91.3	45.5	61.7
	Overall	18.3	106.2	50.4	99.7	58.6	68.5

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Downgradient and leachate well measurements are still significantly higher than upgradient well measurements
'- Overall stabilization of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	30	91	40	83	34	58
Post-IRM, Post-report	29	73	48	80	43	59
Post-IRM	29	77	43	81	34	58

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

Temperature, º F

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	53.1	53.3	54.2	51.9	55.9	53.7
		7.1	6.3	5.9	4.3	10.1	6.1
	Post-IRM, Pre-report	52.4	53.2	54.1	52.6	55.3	53.5
		11.5	6.9	6.3	6.3	10.6	7.7
	Post-IRM, Post-report	52.4	52.7	51.2	52.4	53.2	52.4
		5.9	4.7	9.7	4.6	8.0	4.8
	Post-IRM	52.4	53.0	52.7	52.5	54.3	53.0
		9.1	5.9	8.1	5.5	9.4	6.4
	Overall	52.7	53.1	53.3	52.3	54.9	53.3
		8.4	6.0	7.3	5.0	9.6	6.3
Median	*Pre-IRM*	54.0	52.5	53.0	51.5	56.5	53.6
	Post-IRM, Pre-report	55.0	55.0	54.0	52.0	57.0	53.0
	Post-IRM, Post-report	53.2	52.2	53.4	53.4	55.0	53.2
	Post-IRM	54.6	53.6	53.4	53.2	55.0	53.1
	Overall	54.0	52.6	53.4	52.0	55.0	53.2
Geometric Mean	*Pre-IRM*	52.6	52.9	53.9	51.8	55.0	53.3
	Post-IRM, Pre-report	50.9	52.8	53.7	52.2	54.3	53.0
	Post-IRM, Post-report	52.1	52.5	49.5	52.2	52.6	52.2
	Post-IRM	51.5	52.7	51.7	52.2	53.5	52.6
	Overall	51.9	52.8	52.5	52.1	54.1	52.9

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter

Total Organic Carbon Cotent mg/L

Statistic	Time Period	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
*Arithmetic Mean**	*Pre-IRM*	1.94	9.59	2.82	3.30	16.62	6.90
		1.39	1.93	0.56	0.62	13.05	2.89
	Post-IRM, Pre-report	2.87	9.10	3.53	4.30	12.32	6.59
		1.37	5.77	2.33	1.70	2.97	2.04
	Post-IRM, Post-report	2.32	5.66	2.45	2.71	7.53	4.13
		0.49	1.42	0.87	0.78	2.49	0.97
	Post-IRM	2.57	7.46	3.02	3.54	10.04	5.42
		1.02	4.58	1.86	1.55	3.64	2.03
	Overall	2.30	8.30	2.94	3.45	12.57	6.00
		1.22	3.89	1.49	1.28	9.08	2.49
Median	*Pre-IRM*	1.59	10.00	2.64	3.27	12.00	5.99
	Post-IRM, Pre-report	2.00	7.70	3.20	4.10	11.80	6.46
	Post-IRM, Post-report	2.30	5.50	2.20	2.80	8.00	4.06
	Post-IRM	2.20	6.45	2.70	3.05	9.25	4.76
	Overall	2.00	8.20	2.70	3.20	10.40	5.73
Geometric Mean	*Pre-IRM*	1.71	9.31	2.76	3.25	13.78	6.51
	Post-IRM, Pre-report	2.64	7.87	3.15	4.03	11.99	6.31
	Post-IRM, Post-report	2.26	5.44	2.33	2.58	7.07	4.00
	Post-IRM	2.43	6.60	2.73	3.26	9.33	5.08
	Overall	2.09	7.56	2.74	3.26	10.84	5.60

* Subtended with artithmetic standard deviation

Comments:

- No federal/state effluent groundwater limitation for this parameter
- Well L continues to have significantly higher values than upgradient well
'- Overall reduction of parameter measurements

	Mean + SD	Mean - SD				
	Well 3R	Well 5R	Well 14N	Well 12	Well L	Average
Post-IRM, Pre-report	4.24	3.33	1.19	2.60	9.35	4.54
Post-IRM, Post-report	2.81	4.24	1.58	1.92	5.04	3.17
Post-IRM	3.58	2.88	1.16	1.99	6.40	3.39

- Table above displays the Mean + SD of the up-gradient well (3R) versus the Mean - SD of the down-gradient wells (5R, 14N, etc.) for various time ranges. If the Mean - SD of the downgradient wells is smaller than the Mean + SD of the upgradient wells, then the up-gradient and down-gradient ranges of Mean +/- SD overlap. If this is the case, the two datasets are not considered to be significantly different. Cells are highlighted in yellow to indicate a lack of significant difference.

APPENDIX 2

Operation and Maintenance Plan

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

OPERATION MONITORING AND MAINTENANCE MANUAL
CELLS 1 AND 2

FOR
CC METALS AND ALLOYS, LLC
WITMER ROAD

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LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

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APPENDIX	TITLE
A	Deed Restriction
B	Inspection Checklist
C	Well Location & Surface Water Drainage Map
D	SOP Groundwater/Surface Water Sampling
E	TestAmerica Quality Assurance Manual

OPERATION MONITORING AND MAINTENANCE MANUAL
CELLS 1 AND 2

FOR
CC METALS AND ALLOYS, LLC
WITMER ROAD

1.0 INTRODUCTION

The following provides a post-closure maintenance and monitoring plan for the CC Metals and Alloys, LLC (CCMA) landfill Cells 1 and No. 2. These facilities are located at a 9.76 acre site adjacent to Witmer Road in the Town of Niagara. Waste disposed in Cell 1 includes ferrosilicon and ferrochromium metal baghouse dusts and waste disposed in Cell 2 contains ferroalloy dust.

Cell 1 was constructed in 1980 per a New York State Department of Environmental Conservation (NYSDEC) Part 360 Permit (#2133). It was closed in 1990 per a NYSDEC approved closure plan. Cell 2 was constructed in 1983 per a NYSDEC Part 360 Permit (#2585). Per NYSDEC Order on Consent 87-152A waste deposition into Cell 2 was stopped on September 30, 1991. Cell 2 was closed in 1992.

The principal objective of this manual is to provide the necessary instructions for the following:

1) Proper maintenance of all facility components,

2) Groundwater and surface water sampling and analysis, and

3) Interpretation of ground and surface water monitoring data. Adherence to this post-closure monitoring and maintenance program is required by 6 NYCRR Part 360 for a minimum period of thirty (30) years after final closure of Cells 1 and 2.

The information provided in this post-closure monitoring and maintenance operations manual is utilized by CCMA personnel and its consultants.

2.0 PROCEDURE FOR AMENDING POST-CLOSURE MONITORING AND MAINTENANCE OPERATIONS MANUAL

This post-closure monitoring and maintenance operations manual should be reviewed at regular intervals (initially once every three years) to ensure that it remains consistent with both the regulations and the technology concerning post-closure monitoring and maintenance at the Witmer Road site. All necessary modifications will be made under the

direction of a professional engineer licensed in the State of New York.

Since this plan (after approval) will be incorporated as a binding agreement between CCMA and the NYSDEC, any proposed modifications to this plan will be submitted to the NYSDEC for approval.

Upon receipt of NYSDEC approval, the changes will be made and the updated plan will be placed on file at the CC Metals and Alloys, Amherst, New York, office.

3.0 POST-CLOSURE MAINTENANCE REQUIREMENTS

The goals of the post-closure maintenance plan for the CCMA, Witmer Road Site, are as follows:

1) Ensure that structural integrity of closed Cells 1 and 2 is being properly maintained.

2) Correct any problems that might occur at the site before they have a chance to develop to such a degree that adverse environmental impacts might result.

3) Follow a program in which all involved parties (CCMA, regulatory agencies, and the public) have a sense of confidence that the site will not create problems which cannot be reasonably handled with minimum impacts.

4) Properly maintain the drainage pathways and controls implemented under the Interim Remedial Measure (IRM) order established in 1999.

5) Annual certification of the Deed Restriction (Institutional Control) filed with the Niagara County Clerk and recorded May 3, 2001, in Book 3114 on Page 291, ensuring it is still in effect and has not been altered. A copy of the Deed Restriction is included as Appendix A.

The post-closure maintenance plan can be summarized as follows:

1) LAN Associates, Inc. will be responsible for filing a Waste Management Facility Maintenance Inspection Report. Included in this inspection report will be a checklist which covers the following annual evaluation:

    a) Bank and cover erosion,
    b) Settlement,
    c) Cover soil integrity,
    d) Condition of vegetative cover, and
    e) Condition of monitoring wells.

2) If any problems are encountered during the inspections that may be of significant environmental concern, the necessary corrective actions will be undertaken as expeditiously as possible. Notice of these actions will be reported to the NYSDEC explaining the nature and location of the problem and the corrective action taken.

Post-closure maintenance requirements are expected to be minimal. However, areas where some maintenance may be necessary include landfill cover, berms, surface water drainage ditch, and groundwater monitoring wells.

Adequate information is not available to actually calculate how much subsidence will occur with Cells 1 and 2, however, only an insignificant amount of subsidence is expected. This is based on the results from compaction tests previously done on waste materials contained in Cells 1 and 2. In addition, the materials contained in these cells will not undergo any decomposition. Slopes utilized in the closures of Cells 1 and 2 will ensure that their final slope, after settling and subsidence, will be greater than three percent. A slope greater than three percent will allow for adequate surface water runoff rates.

Any deficiencies noted either during the sites scheduled or unscheduled inspections will be corrected as expeditiously as possible. While each situation must be evaluated on a case by case basis, a plan of action has been prepared to deal with those situations which are most likely to occur.

Landfill cover deterioration should be minimal. However, some will undoubtedly occur due to freeze-thaw effects, water erosion, etc. Such deterioration must be corrected as quickly as possible.

The vegetative growth covering the closed cells will be allowed to return to its natural state. The vegetative cover on the landfill cells as well as the drainage areas will be mowed once per year between September 1st and December 31st. If significant bare spots should develop, an attempt will be made to determine the cause. Factors which will be considered include the presence of excessive moisture, excessive dryness, wrong pH, or the absence of the proper soil nutrients. When the cause is determined, remedial action will be taken.

Both wind and water erosion of the landfill cover can occur. While this is not expected to be a significant problem, any erosion which does occur must be taken care of expeditiously. Repair will bring lines and grades to their original configuration. If the erosion can be attributed to inadequate original design, the necessary design modifications will be made and implemented (after receipt of NYSDEC approval). Future modifications could include changes in slope gradients or protection of slopes by riprap.

The facility's annual report will include notations concerning both scheduled and

unscheduled facility inspections. Inspections will be performed on an annual basis. An inspection checklist created specifically for the property will be used when performing the inspections. A copy of the inspection checklist is included as Appendix B. Annual inspections are appropriate because the landfill has been closed for 16 years with no disruption to the integrity of the system. Information will include the date and time of the inspection, inspector's name, and a summary of all problems observed and remedial actions taken.

Records of all inspections will be retained for a minimum period of seven (7) years (see Appendix B, Inspection Checklist). In addition, summary reports and records of all incidents requiring initiation of the site's contingency plan or resulting in human health or environmental damage will be prepared and maintained for a minimum period of seven (7) years.

It is important to note that the drainage system on the property is protected by a Deed Restriction. The Deed Restriction serves as a covenant for the land that binds all future property owners. Therefore, any person wishing to engage in any activity on the property that could interfere significantly with the completed closure and remedial program is required to obtain written approval from the NYSDEC and the New York State Department of Health, or any New York State agency created to protect the environment. A copy of the Deed Restriction is included in Appendix A.

4.0 POST-CLOSURE GROUNDWATER AND SURFACE WATER SAMPLING AND ANALYSIS PLAN

The following provides a post-closure site groundwater and surface water sampling and analysis plan for the Witmer Road landfill site. Its primary objective is to provide data relating to the site's groundwater and surface water quality during the solid waste management facility's post-closure period.

Factors which were given consideration in the design of this plan include the following:

1) Ground and surface water monitoring requirements at a non-hazardous waste management landfill facility as stipulated in 6 NYCRR Part 360 Solid Waste Management Facilities (effective December 31, 1988),

2) Physical and chemical characteristics of waste materials deposited in Cells No. 1 and 2,

3) Site's hydrological conditions,

4) Pollution potential of site as exemplified by the type of waste materials present, and

5) Groundwater use.

Items which are addressed in this post-closure groundwater and surface water sampling and analysis plan include the following:

1) Locations and construction of monitoring points,
2) Discussion of monitoring frequency and parameters,
3) Sampling personnel and equipment requirements,
4) Sampling procedures,
5) Sample handling,
6) Analytical procedures,
7) Laboratory quality assurance plan,
8) Data analysis,
9) Contingency monitoring requirements, and
10) Data reporting requirements.

By developing and implementing a comprehensive, site specific groundwater sampling and analysis program the potential for problems to arise when obtaining, handling, preserving, and analyzing samples will be minimized.

4.1 LOCATION AND CONSTRUCTION OF MONITORING POINTS

The post-closure monitoring program for Cells 1 and 2 includes groundwater and surface water monitoring. Implementation of this program during the facility's post-closure period will provide the required data to evaluate the effects of Cells 1 and 2 on both the site's ground and surface water. A series of five (5) wells will be utilized to monitor the quality of the groundwater contained in the permeable sediments overlying the bedrock. These wells were utilized to monitor the effects of Cells 1 and 2 on the site's groundwater during the operation of these facilities. Based upon previous data from these monitoring wells, groundwater flows in a southerly direction across the site. Surface water quality will be monitored using samples obtained from the site's drainage ditch.

4.1.1 Monitoring Well Location and Construction

Sample points (wells) 3R, 5R, 12, BR1, and 14N are indicated on the Well Location and Surface Water Drainage Map showing baseline locations, monitoring well elevations, and surface water drainage patterns (Appendix C). Based upon the site's previously noted groundwater flow direction (southerly), monitoring well 3R can be used to provide upgradient data while monitoring wells 5R, 12, BR1, and 14N provide data on

groundwater quality downgradient of the site's disposal areas (Cells 1 and 2).

"It has been reported that the wells are installed at the depth of refusal. Well #12 is constructed of 4-inch PVC with the lower two feet slotted with 1/16 inches wide horizontal slots spaced approximately 1 inch apart. The slots are covered with a stainless steel well screen. A sand pack was placed from the bottom of the well upward for approximately five feet. Bentonite pellets were utilized to provide a seal at the clayey-silt level. Loose bentonite was then placed around the monitoring well through most of the impervious lake sediment zone to the surface to prevent water seepage from the "perched" water table. Monitoring wells 3R, 5R, BR1, and 14N are constructed of 2-inch PVC risers attached to 5-foot lengths of PVC 10 slot screen. The PVC screens were installed immediately above the dense loamy glacial till which overlies the site's bedrock. The screen interval and associated sand column surrounding the screens extend partially above the screens. Bentonite pellet seals were utilized to separate the sand pack from the cement-bentonite grout seal. Each well casing is surrounded at the ground surface by a continuous pour concrete cap and well apron (minimum radius of 3 feet and minimum thickness of 4 inches)."[1]

4.1.2 Surface Water Monitoring Points

Cell 1 closure resulted in all waste materials being covered with a minimum of 18 inches of low permeability compacted soil (maximum permeability of 1.0 x 10 cm/sec) and 6 inches of soil capable of supporting vegetative growth. It is reported that Cell 2 was similarly closed. It is very unlikely that surface water runoff from the closed facilities has any contact with the waste materials previously deposited in Cells 1 and 2. However, samples will be taken from the location of the discharge flow control valve (SW-1) located in the southwest corner of site where surface water collects and flows into the stormwater drainage pipe and then offsite to the City of Niagara Falls sewer system.

4.2 MONITORING FREQUENCY AND PARAMETERS

Groundwater sample points will include monitoring wells 3R, 5R, 12, BR1, and 14N. Based upon an isopotential map of the site's groundwater, monitoring well 3R will provide upgradient data while monitoring wells 5R, 12, BR1, and 14N will provide data on groundwater quality downgradient of Cells 1 and 2. Surface water sampling will be performed at point SW-1. In addition, samples will be

[1] Original Post Closure Monitoring and Maintenance Operations Manual by Snyder Engineering 1991

obtained from the landfill leachate sump (LS-1). Site monitoring frequency will be on a semi-annual basis. Samples will be analyzed on a semi-annual basis for routine parameters; specific conductivity, temperature, pH, Eh, turbidity, COD, TOC, TDS, SO4, Cl, Br, Pb, Mn, K, and Na. In addition, semi-annual samples will be analyzed for baseline parameters; As, Ba, Cr, Cr+6, Hg, Se, and B. Annual samples will be obtained for Volatile Organic Compounds (VOCs) that are specified in the New York State Regulation 6 Part NYCRR 360 baseline parameter list. The laboratory analytical method for the VOCs is SW-846 method 8260.

4.3 SAMPLING PERSONNEL AND EQUIPMENT REQUIREMENTS

The laboratory utilized to implement the site's post-closure groundwater and surface water monitoring program must be approved by the NYSDEC. The laboratory must be approved to perform the required analyses for all parameters of concern. All sampling personnel must be properly trained in the collection and handling of groundwater and surface water samples. They must be familiar with all equipment required to collect a representative sample of groundwater from wells such as those present at the Witmer Road site. Sampling personnel must have a minimum two years of technical training in chemistry, environmental science, or other technical discipline. This educational requirement may be waived for personnel with a minimum of five years experience in the collection of environmental samples.

4.4 SAMPLING PROCEDURES

Standard Operating Procedure (SOP) No. BR-FS-005, Groundwater/Surface Water Sampling is included in Appendix D. The procedure for the sampling of the sump (LS-1) is performed under the standard operating procedures outlined in Appendix D. The actual sample itself is obtained through the use of a bailer dropped down into the sump.

4.5 LABORATORY QUALITY ASSURANCE PLAN

The primary objective of the Quality Assurance Plan for CCMA groundwater and surface water monitoring program is to ensure that the analytical results obtained from the program are reliable, statistically valid, and properly documented. As previously noted, CCMA will only utilize a laboratory for program implementation which has been approved by the NYSDEC. The basis of this quality assurance program is the establishment of methods which will be followed in obtaining the analytical results for each sample. Procedures (including quality assurance samples, replicates, spikes, and standards calibration) will be established and used for validating the methods utilized by the analytical laboratory and as an indicator of potential sources of cross-contamination. This will help ensure that the laboratory generates precise, accurate, and reliable data.

Test America Laboratories, Inc. located in Buffalo, New York, is currently the laboratory chosen to perform the sampling. A complete quality assurance manual for Test America is included in Appendix E.

4.5.1 Personnel Responsibilities

LAN Associates, Inc. will be responsible for ensuring that the required groundwater and surface water monitoring program at the Witmer Road site is correctly carried out. Their responsibilities will include the following:

1) Overall responsibility for management of the analytical program and validity of all data,

2) Selection of an analytical laboratory to perform sample analyses,

3) Performance monitoring of analytical laboratory and review of all analytical protocols required for measuring and monitoring,

4) Submission of all analytical data to New York State Department of Environmental Conservation, Town of Niagara, and Niagara County Health Department.

A project coordinator is to be designated by the analytical laboratory. This individual is to have responsibility for the following:

1) Communication with CCMA Environmental Manager or designated representative regarding the groundwater and surface water analysis program,

2) Monitor sampling and/or analytical techniques and recommend modifications as required,

3) Verify that laboratory quality control and analytical procedures are being followed as specified in the Quality Control Plan when laboratory personnel are analyzing CCMA groundwater and surface water samples,

4) Review raw analytical data and check arithmetic calculations for a minimum of 20% of the samples analyzed (includes inspection of reduced data, calibration curves and bound laboratory notebooks),

5) Receive groundwater and surface water samples at the laboratory and verify that incoming samples correspond to the chain of

custody sheet,

6) Maintain records of all incoming samples and track samples while they are being processed,

7) Prepare quality control samples for analysis as required to satisfy quality assurance requirements,

8) Approve completed data and analytical report before transmittal to CC Metals and Alloys, LLC.

A sampling coordinator is to be designated by the analytical laboratory. This individual is to have responsibility for the following:

1) Determine appropriate sampling equipment and sample containers,

2) Train field personnel in the necessary sampling and field analytical procedures,

3) Insure that all samples are collected, labeled, preserved, and stored as specified in other sections of this report,

4) Check that all required sample documentation is correct and is transmitted with the samples,

5) Check on field sampling to insure that it is being done correctly.

4.5.2 Analytical Quality Assurance

Specific analytical methods often prescribe the necessary specific quality assurance procedures. In order to achieve a high degree of accuracy (degree of measurement or average of measurements agreement with an accepted reference or true value obtained from executing a method in a particular laboratory using an interference free matrix), the laboratory must do the following:

1) References used as reference standards must be the highest purity commercially available materials and must be certified by the supplier.

2) Each instrument utilized in performing the analyses must be checked on each day that the samples are run in order to demonstrate performance.

3) Recovery factors for individual contaminants are determined for the analytical method which is utilized.

4) Analytical results for spiked level of the contaminant under evaluation in a replicate sample must be within the required limits for the contaminant under evaluation.

Full documentation of all analyses must be kept in notebooks and be available for inspection at the designated laboratory by either a representative of CCMA or the NYSDEC.

4.5.3 Data Validation and Reporting

The principal steps that will be used to verify the data integrity during data collection and reporting are as follows:

1) Project coordinator will review raw data generated by the laboratory chemist. It will be reviewed against calibration and quality control records, to ensure both the adequacy of documentation and the reliability of the data.

2) When the previously noted review has been completed, the data will be considered validated and a report will be prepared for submission to CCMA.

3) All laboratory notes and records will be maintained and stored in an accessible place.

A variety of samples will be analyzed at regular intervals to assess possible contamination from either the field and/or the laboratory. These include blank, spiked, and replicate samples. Blank samples include:

1) Field blanks are exposed to field and sampling conditions and analyzed in order to assess possible contamination from the field. A bottle is filled with de-ionized water and is transported to the sampling location and is returned to the laboratory in a manner identical to the handling procedure used for the samples.

2) Method blanks are prepared in the laboratory and are analyzed in order to determine the background of each of the reagents or solvents used in an analysis.

Spiked samples will be spiked (as prescribed by the analytical method) with one or more selected compounds prior to extraction and analysis. Concentration data will be used to calculate the recovery of the compounds. Such samples will provide a measure of sample preparation and analysis procedures accuracy.

Replicate samples are analyzed in order to establish control and assess the precision of an analysis and/or of sampling. Field replicates are obtained in order to assess the adequacy of overall sampling and handling procedures. Laboratory replicates are prepared in the laboratory and analyzed in order to assess the reproducibility of the laboratory procedures used.

4.6 CONTINGENCY MONITORING REQUIREMENTS

All waste materials which have been deposited by CCMA Cells 1 and 2 at the Witmer Road site were approved by the NYSDEC. In the unlikely event that significant groundwater contamination is detected, a contingency plan will be enacted. Objectives of this groundwater contingency plan will be as follows:

1) Confirm whether significant quantities of contaminants have entered the groundwater at the CCMA Witmer Road site from the waste materials previously deposited by CCMA in Cells No. 1 and 2,

2) If significant quantities of contaminants have entered the groundwater, determine their consequences and the rate and extent of their migration.

Under normal circumstances, Objective #1 will be satisfied by the site's groundwater monitoring program as previously described. However, if a statistical analysis of monitoring data from upgradient and downgradient wells utilizing the Student's t-test at the 0.01 level of significance indicates a significant difference in groundwater quality, additional samples will be obtained and analyzed. If the difference cannot be attributed to sampling or analytical errors, a written notice that the facility may be affecting the groundwater must be sent within 14 days to Region 9 of the NYSDEC.

During the next semi-annual sampling event, each monitoring well involved in triggering the contingency monitoring plan will be sampled and analyzed for the baseline parameters as defined by Water Quality Analysis Table in 6 NYCRR Part 360-2.1 1(c)(6). Every attempt will be made to report the analytical results to the NYSDEC within 30 days after the sampling date. In any case, the results will be reported to the NYSDEC within 14 days after receipt of results from the certified analytical laboratory.

In the event that the NYSDEC determines that any potential contamination as reflected by the baseline monitoring results poses an immediate threat to public health or the environment, CCMA will provide the NYSDEC with a corrective action plan. Upon receipt of plan approval from the NYSDEC, CCMA will implement the corrective action plan.

When the corrective action plan is implemented, the sampling and analysis for baseline parameters will be performed at least semi-annually until the conditions for curtailing contingency water quality monitoring are satisfied as follows:

1) Elevated parameter(s) is demonstrated not to be landfill derived, or
2) Remediation of release by landfill is demonstrated to be complete.

In addition, the contingency water quality monitoring may be reduced or discontinued with the approval of the NYSDEC, if such monitoring is no longer necessary to protect public health or the environment.

If during analysis for baseline parameters, contamination by any toxic metal, cyanide, volatile organic compound, or other substance identified in Appendix 33 of 6 NYCRR Part 373-2 occurs, CCMA will sample the appropriate environmental monitoring points in the next scheduled sampling event after receiving the analytical results from the laboratory. Each sample will be analyzed for all the expanded parameters listed in the Water Quality Analysis Table. Unless the NYSDEC requires more frequent sampling to evaluate a potential or adverse environmental impact or perceived health risk or until the previously noted conditions for curtailing contingency water quality monitoring are satisfied, subsequent annual analyses of these monitoring points will include all routine parameters and those baseline and expanded parameters that were elevated or were implicated in the expected pattern.

4.7 REPORTING AND RECORDKEEPING REQUIREMENTS

Copies of all semi-annual monitoring reports will be sent to the following:

1) Ms. Mary McIntosh
   Senior Engineering Geologist
   New York State Department of Environmental Conservation
   Region 9
   270 Michigan Avenue
   Buffalo, New York 14203-2999

2) Town of Niagara
   7105 Lockport Road
   Niagara Falls, New York 14305

In addition, CCMA will prepare and submit an annual summary report concerning facility post-closure maintenance and monitoring. This report will be certified by a Professional Engineer registered in the State of New York. It will be submitted to the NYSDEC Region 9 Solid Waste Regional Engineer no later than 60 days after the first day of January each year. These records will be retained for a minimum period of seven years.

Analytical data records which will be retained during the post-closure period include the following:

1) All chemical analyses of waste materials,

2) All EP toxicity and TCLP test data performed on waste material samples,

3) All chemical analyses and associated monitoring well elevations obtained as part of the site's groundwater and surface water monitoring program.

APPENDIX 3

SKW Historical Permits

23269.5

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

2585

EXPIRATION DATE
October 31, 1984

EFFECTIVE DATE - October 20, 19

[X] CONSTRUCTION [X] INITIAL ISSUE [ ] REISSUANCE
[X] OPERATION [ ] RENEWAL [ ] MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
KW ALLOYS, INC.	3801 Highland Avenue, Niagara Falls, NY 14305	716/285-1252

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Niagara	Niagara	Region 9 Headquarters 600 Delaware Avenue, Buffalo, NY 14202

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Construct and Operate SKW Alloys, Inc. Landfill #2	William Lozow

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

1. Your application for a variance from 6NYCRR Part 360.8(b) (exemption from daily cover) is hereby approved. In the event that the deposited ferro silicon sludges become dried and create a fugitive dust problem, either on or off site, steps shall be taken to remedy the situation.

2. Upon the filling of the landfill, two feet of cover material shall be applied to the surface of the landfill. The top 6 inches shall be of a soil suitable for sustaining a vegetative cover crop to avoid erosion.

3. Quarterly reports shall be submitted indicating the volume of material which has been placed into the landfill and shall be submitted on the first business day of the months of November, February, May and August.

4. Semi-annual reports shall be submitted to the Region 9 Office containing the analytical results of the monitoring well sampling program and surface water sampling program as included in the permit for Landfill #1.

5. Within 60 days of the effective date of this permit, a certificate of deposit, bond or other negotiable instrument, payable to the Commissioner of the NYS Department of Environmental Conservation, shall be forwarded to this Region 9 Office in the amount of $5,000 to cover costs of closure and monitoring. The life of this undertaking shall be for the permit life (October 31, 1984).

6. The issuance of this permit does not relieve the applicant from the compliance with other State, Federal or local laws, ordinances or regulations.

7. Prior to the expiration date of this permit, the landfill shall be properly closed and maintained to prevent adverse environmental health impacts, such as contravention of surface or groundwater quality standards, gas migration, odors, and vectors. Proper

(CONT'D)

ISSUE DATE	ISSUING OFFICER	SIGNATURE
2 OCT 84	Robert J. Mitrey, P.E.	X Robert J. Mitrey, P.E.

SKW ALLOYS, INC.
3801 Highland Avenue
Niagara Falls, NY 14305

Permit to Construct and
Operate - Permit #2585
Expiration Date - 10/31/84
Facility #32N04

SPECIAL CONDITIONS (cont'd)

7. closure includes covering with a minimum of 2 feet of final cover, establishment of a grass cover crop, and sufficient grading to divert water off the fill area in order to minimize infiltration and to preclude ponding.

Robert H. Mettey, P.E. #4
Permit Administrator

20 Oct 84
Date

New York State Department of Environmental Conservation
584 Delaware Avenue, Buffalo, New York 14202

Robert F. Flacke
Commissioner

May 30, 1980

Mr. LeRoy C. Wintersteen, Manager
Environmental Control
SKW Alloys, Inc.
P.O. Box 368
Niagara Falls, NY 14302

Re: Permit to Operate
Solid Waste Management Facilities
Permit No. 2133
Niagara (T), Niagara County

Dear Mr. Wintersteen:

This will acknowledge receipt of the Certification of Construction and "As Built" drawings for the above facility. These materials are accepted for record purposes and are included in our files on the project.

We are transmitting herewith Permit No. 2133, Permit to Operate the Solid Waste Management Facility. The permit contains special conditions which require monitoring, record keeping, and reporting which should be followed, as well as the other conditions in the permit.

If you have any questions pertaining to the permit, the operation of the facility or the monitoring and reporting requirements, please do not hesitate to contact the writer or Mr. Tygert at 716/842-4311.

Very truly yours,

Robert J. Mitrey, P.E.
Associate Sanitary Engineer

JST:sk

cc: Niagara County Health Dept.
Secured Landfill Contractors, Inc.
Mr. Richard Snyder, P.E.
Albany, Division of Solid Waste

47-2 (3/77) NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FACILITY NO. 9-2904-2133

EXPIRATION DATE May 30, 1983

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

☐ CONSTRUCTION ☒ INITIAL ISSUE ☐ REISSUANCE
☐ OPERATION ☐ RENEWAL ☐ MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
SWS Alloys, Inc.	P.O. Box 368, Niagara Falls, NY 14302	716/285-1252

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Niagara	Niagara	Buffalo (9)

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Solid Waste Management Facility	T.C. Wintersteen, Mgr. Env. Contro

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

Page 1 of 2

1. That this permit is not transferable and is subject to revocation in the event of violation of this Permit, of the provisions of the Environmental Conservation Law, Article 27, Part 360 of the Rules and Regulations of the Department (6NYCRR360) or for violation of any other Rules and Regulations of the State of New York or other governmental bodies. This approval does not relieve the permittee of the responsibility of complying with local zoning, building or other laws, rules and regulations or ordinances.

2. That present monitoring wells and surface water monitoring locations shall be sampled on a quarterly basis starting January 1980, and continuing for one year after issuance of the operating permit for the parameters listed in the engineering report, and submitted to the department within thirty (30) days thereafter.

3. That after one year of operation samples shall be collected and analyzed on a six (6) month basis (April & October) with results submitted within thirty days of sampling.

4. That elevations of the water levels in the monitoring wells shall be recorded at the time of sampling and reported with the sample results.

5. That the elevations of liquids in the standpipes within the landfill shall be recorded monthly and reported on a quarterly basis with the above reports, and shall be continued for at least one year after closure of the landfill.

6. That a minimum of eighteen (18) inches of compacted clay and six (6) inches of soil capable of supporting a vegetative cover crop be placed on the surface of the final cover completion. A certificate of construction compliance shall be submitted within thirty days of the completion of the landfill.

ISSUE DATE	ISSUING OFFICER	SIGNATURE
	Robert J. Hilbert	X

REGIONAL OFFICE

7. That only the materials described in the approved engineering report, prepared by Richard R. Snyder, P.E., dated June 18, 1979, and approved ammendments thereto, be placed in the facility.

8. That daily records of the quantity of waste material placed in the facility be maintained, and that an annual summary be submitted to this office on the anniversary date of this permit. The summary should include the total quantity of wastes disposed of and an estimate of the remaining life and/or volume of the facility.

NOTICE OF PERMIT

for:

[ ] CONSTRUCTION	[X] INITIAL ISSUE	[ ] REISSUANCE
[X] OPERATION	[ ] RENEWAL	[ ] MODIFICATION

has been issued to: SKW Alloys, Inc.

address: P.O. Box 368, Niagara Falls, New York, 14302

for a project described as: Solid Waste Management Facility

under the Environmental Conservation Law,
Article 27, Title 5, Part 360 (Solid Waste Management Facilities)

NOTE:

- This Notice of Permit must be posted on the project site in such a manner that it is protected from weather and is in a location readily visible to the public.
- A copy of the Permit with the general and special conditions noted thereon will be shown to anyone upon request.

New York State
Department of Environmental Conservation

47-12-2 (8/77)

Issuing Officer

584 Delaware Avenue, Buffalo, New York, 14202
Address

2133	5/30/80	5/30/83
Permit No.	Issue Date	Expiration Date

47-20-2 (8/77) NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

FACILITY NO. 2585

EXPIRATION DATE October 31, 1984

EFFECTIVE DATE October 20, 1981

[X] CONSTRUCTION [X] OPERATION

[X] INITIAL ISSUE [ ] RENEWAL

[ ] REISSUANCE [ ] MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
SKW ALLOYS, INC.	2901 Highland Avenue, Niagara Falls, NY 14305	716/285-1250

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Niagara	Niagara	Region 9 Headquarters 600 Delaware Avenue, Buffalo, NY 14202

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Construct and Operate SKW Alloys, Inc. Landfill #2	William Lozow

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

RECEIVED
JUN - 2 2003

SPECIAL CONDITIONS

1. Your application for a variance from 6NYCRR Part 360.8(b) (exemption from daily cover) is hereby approved. In the event that the deposited ferro silicon sludges become dried and create a fugitive dust problem, either on or off site, steps shall be taken to remedy the situation.

2. Upon the filling of the landfill, two feet of dover material shall be applied to the surface of the landfill. The top 6 inches shall be of a soil suitable for sustaining a vegetative cover crop to avoid erosion.

3. Quarterly reports shall be submitted indicating the volume of material which has been placed into the landfill and shall be submitted on the first business day of the months of November, February, May and August.

4. Semi-annual reports shall be submitted to the Region 9 office containing the analytical results of the monitoring well sampling program and surface water sampling program as included in the permit for Landfill #1.

5. Within 60 days of the effective date of this permit, a certificate of deposit bond or other negotiable instrument, payable to the Commissioner of the NYS Department of Environmental Conservation, shall be forwarded to this Region 9 Office in the amount of $5,000 to cover costs of closure and monitoring. The life of this undertaking shall be for the permit life (October 31, 1984).

6. The issuance of this permit does not relieve the applicant from the compliance with other State, Federal or local laws, ordinances or regulations.

7. Prior to the expiration date of this permit, the landfill shall be properly closed and maintained to prevent adverse environmental health impacts, such as contravention of surface or groundwater quality standards, gas migration, odors, and vectors. Formal [illegible]

ISSUE DATE	ISSUING OFFICER	SIGNATURE
[illegible]	Robert W. Murray, P.E.	X [illegible]

REGIONAL OFFICE

SKW ALLOYS, INC.
3801 Highland Avenue
agara Falls, NY 14305

Permit to Construct and
Operate - Permit #2585
Expiration Date - 10/31/84
Facility #32N04

SPECIAL CONDITIONS (cont'd)

7. closure includes covering with a minimum of 2 feet of final cover, establishment of a grass cover crop, and sufficient grading to divert water off the fill area in order to minimize infiltration and to preclude ponding.

Robert H Mettey, P.E. #4
Permit Administrator

20 Oct '84
Date

APPENDIX 4

Annual Groundwater Analytical Summary

LAN Associates, Inc.
CONSULTING • ENGINEERING • PLANNING

Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 14N																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/27/2017		5/11/2018		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	605.52		605.52		605.52		605.52		605.52		605.52		605.52		605.52		605.52	
WATER LEVEL	-	Feet	10.22		7.12		8.13		6.83		6.81		7.11		6.47		6.89		6.19	
WATER ELEVATION (BEFORE PU	-	Feet	595.30		598.40		597.39		598.69		598.71		598.41		599.05		598.63		599.33	
WELL BOTTOM	-	Feet	26.35		26.35		26.35		26.35		26.35		26.50		26.5		26.5		26.5	
ARSENIC	*0.025*	mg/l	0.010	U	0.010	U	0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U
BARIUM	*1*	mg/l	0.12		0.11		0.12		0.11		0.11		0.12		0.12		0.14		0.14	
BORON, (TOTAL)	*1*	mg/l	0.12		0.11		0.13		0.12		0.11		0.11		0.11		0.12		0.10	
BROMIDE	-	mg/l	0.99		0.20	U	0.20	U	0.20	U	2.00	U	0.32		1.0	U	1.0	U	1.0	U
CHEMICAL OXYGEN DEMAND	-	mg/l	12.0		10.4		10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
CHLORIDE	-	mg/l	119		117		109		92		110.0		132.0		151.0		175.0		150.0	
CHROMIUM	*0.05*	mg/l	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.00040	U	0.00040	U	0.00400	U	0.00400	U
Eh	-	M.Volts	26		175		168		74		132		67		242		36		40	
HEXAVALENT CHROMIUM	*0.05*	mg/l	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
MANGANESE	*0.3*	mg/l	0.11		0.08		0.120		0.07		0.130		0.090		0.077		0.13		0.13	
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U
PH	*between 6.5 to 8.5*	S.U	7.17		6.99		7.01		6.87		7.01		6.98		7.06		7.26		7.26	
POTASSIUM	-	mg/l	2.5		2.5		3.0		2.4		2.4		2.6		2.6		3.0		3.5	
SELENIUM	*0.01*	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0250	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
SODIUM	*20*	mg/l	**67.6**		**63.8**		**73.9**		**57.8**		**58.2**		**68.8**		**75.6**		**103**		**113**	
SPECIFIC CONDUCTANCE	-	Umhos/cm	1215		1139		1181		1163		1201		1368		1427		1589		1486	
SULFATE	*250*	mg/l	169		175		171		168		162		160		141		237		250	
TEMPERATURE	-	°F	13.20		52.16		54.68		58.28		47.48		50.18		52.16		53.24		52.34	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	**877**		**857**		**829**		**837**		**809**		**844**		**885**		**956**		**948**	
TOTAL ORGANIC CARBON	-	mg/l	1.8		2.6		2.3		3.1		2.5		2.0		2.5		2.4		3.1	
TURBIDITY	*not exceed 5*	N.T.U	2.89		1.93		5.11		2.51		1.93		2.48		1.83		2.3		3.4	

LAN Associates, Inc.
CONSULTING • ENGINEERING • PLANNING

Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 14N																				
1,1,1,2-Tetrachloroethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U
1,2-Dibromomethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10.0	U	10	U	10	U	10	U	10	U	10	U	5.0	U	10.0	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10.0	U	10	U	10	U	5.0	U	10.0	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15.0	U	15	U	15	U	10	U	20	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromochloromethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroform	*7*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5*	ug/l	-		**28**		**29**		**28**		**28**		**21**		**24**		**25**		**20**	
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromomethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Ethylbenzene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.0	U	2.0	U
Methylene chloride	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Styrene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5*	ug/l	-		5.0	U	5.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.5	U
Trichloroethene	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.6		**2.4**		1.0	U	1.4		1.1		1.8		**2.3**		1.3	

LAN Associates, Inc.
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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 3R																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/28/2017		5/11/2018		5/8 ,9,17/2019	
TOP OF CASING ELEVATION	-	Feet	611.87		611.87		611.87		611.87		611.87		611.87		611.87		611.87		611.87	
WATER LEVEL	-	Feet	7.32		2.09		3.55		1.65		1.93		2.12		1.58		2.06		1.63	
WATER ELEVATION (BEFORE PU	-	Feet	604.55		609.78		608.32		610.22		609.94		609.75		610.29		609.81		610.24	
WELL BOTTOM	-	Feet	12.05		12.05		12.05		12.05		12.05		12.05		12.05		12.05		12.05	
ARSENIC	*0.025*	mg/l	0.010	U	0.010	U	0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.02	U
BARIUM	*1*	mg/l	0.035		0.028		0.034		0.028		0.025		0.027		0.028		0.032		0.027	
BORON, (TOTAL)	*1*	mg/l	0.21		0.16		0.20		0.16		0.14		0.15		0.14		0.14		0.12	
BROMIDE	-	mg/l	0.24		0.20	U	0.20	U	0.20	U	2.00	U	0.20	U	0.20	U	1.0	U	1.0	U
CHEMICAL OXYGEN DEMAND	-	mg/l	10.0	U	10.0	U	10.0	U	16.3		12.5		10.0	U	10.0	U	10	U	10	U
CHLORIDE	-	mg/l	35.9		35.9		37.9		35.9		37.1		47.8		50.6		108		86	
CHROMIUM	*0.05*	mg/l	0.0078		0.0052		0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0091		0.0055		0.01	
Eh	-	M.Volts	156		112		148		168		131		158		260		92.0		112.0	
HEXAVALENT CHROMIUM TOTAL	*0.05*	mg/l	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
MANGANESE	*0.3*	mg/l	0.0030	U	0.0030	U	0.0190		0.003	U	0.0047	U	0.0035	U	0.003	U	0.0030	U	0.0100	U
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.02000	U
PH	*between 6.5 to 8.5*	S.U	6.87		6.99		6.89		6.96		6.85		6.51		7.39		7.70		7.25	
POTASSIUM	-	mg/l	0.50	U	0.50	U	0.55		0.50	U	0.50	U	0.50	U	0.50	U	0.58		1	
SELENIUM	*0.01*	mg/l	0.0039		0.0023		0.0010	U	0.0250	U	0.025	U	0.025	U	0.025	U	0.025	U	0.02	U
SODIUM	*20*	mg/l	**30.5**		**23.8**		**29.0**		**24.1**		**22.2**		**23.8**		**25.4**		**37.3**		**42.1**	
SPECIFIC CONDUCTANCE	-	Umhos/cm	1095		999		1069		1055		1177		1131		1125		1322		1195	
SULFATE	*250*	mg/l	143		155		154		147		147		148		141		190		180	
TEMPERATURE	-	oF	56.84		49.46		56.32		57.02		42.98		48.38		53.6		52		50.36	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	**802**		**702**		**735**		**731**		**749**		**669**		**669**		**838**		**761**	
TOTAL ORGANIC CARBON	-	mg/l	2.0		2.9		2.8		5.0		2.6		1.9		2.1		1.9		2.4	
TURBIDITY	not exceed 5	N.T.U	2.40		1.87		3.56		0.92		1.07		1.82		1.55		1.5		2.3	

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 3R																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10	U	10	U	10	U	10	U	10	U	10	U	5.0	U	5.0	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10	U	10	U	10	U	5.0	U	5.0	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15	U	15	U	15	U	10	U	10	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 5R																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/27/2017		5/11/2018		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	601.67		601.67		601.67		601.67		601.67		601.67		601.67		601.67		601.67	
WATER LEVEL	-	Feet	8.44		5.07		6.35		5.51		5.44		6.74		5.25		5.51		4.98	
WATER ELEVATION (BEFORE PU	-	Feet	596.25		596.25		596.25		596.25		596.23		594.93		596.42		596.16		596.69	
WELL BOTTOM	-	Feet	19.75		19.75		19.75		19.75		19.74		19.74		19.74		19.74		19.74	
ARSENIC	*0.025*	mg/l	0.010	U	0.010	U	0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.02	U
BARIUM	*1*	mg/l	0.07		0.064		0.063		0.053		0.043		0.056		0.049		0.055		0.054	
BORON, (TOTAL)	*1*	mg/l	0.19		0.18		0.20		0.18		0.18		0.17		0.17		0.19		0.17	
BROMIDE	-	mg/l	3.00		0.7		1.30		1.0		0.84		0.98		1.0	U	1.0	U	1.0	U
CHEMICAL OXYGEN DEMAND	-	mg/l	29.3		15.8		25.7		27.1		12.8		10.0		10.0	U	19.3		14.9	
CHLORIDE	-	mg/l	96.0		94.9		94.7		80.6		92.8		85.6		82.7		84.7		82	
CHROMIUM	*0.05*	mg/l	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0100	U
Eh	-	M.Volts	97		120		144		135		110		115		218		80		169	
HEXAVALENT CHROMIUM TOTAL	*0.05*	mg/l	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
MANGANESE	*0.3*	mg/l	0.02		0.010		0.370		0.01		0.0160		0.0190		0.0039		0.018		0.03	
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U
PH	*between 6.5 to 8.5*	S.U	7.99		7.86		7.70		7.85		7.87		7.78		7.92		8.22		8.22	
POTASSIUM	-	mg/l	30.1		25.8		24.3		20.8		18.5		20.1		18.8		20.3		21.5	
SELENIUM	*0.01*	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0250		0.025	U	0.025	U	0.025	U	0.025	U	0.02	U
SODIUM	*20*	mg/l	**75.3**		**75.1**		**88.5**		**68.5**		**67.7**		**70.3**		**68.3**		**77.1**		**81.4**	
SPECIFIC CONDUCTANCE	-	Umhos/cm	847		818		857		825		851		886		861		920		882	
SULFATE	*250*	mg/l	183		178		183		157		157		164		167		182		180	
TEMPERATURE	-	°F	56.12		50.36		53.96		56.12		44.96		48.20		51.26		50.2		51.26	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	**629**		**552**		**587**		**545**		490		**531**		**531**		**554**		**544**	
TOTAL ORGANIC CARBON	-	mg/l	5.3		5.1		6.4		5.8		5.4		4.5		4.6		4.9		5.7	
TURBIDITY	*not exceed 5*	N.T.U	1.79		2.71		2.91		2.68		1.07		1.29		0.93		1.5		2.2	

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 5R																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10	U	10	U	10	U	5	U	10	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15	U	15	U	15	U	10	U	20	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.0	U	2.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	5.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Well 12																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/28/2017		5/11/2018		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	597.71		597.71		597.71		597.71		597.71		597.71		597.71		597.71		597.71	
WATER LEVEL	-	Feet	10.05		8.02		9		8.29		7.95		8.35		8.18		8.22		7.71	
WATER ELEVATION (BEFORE PU	-	Feet	587.66		589.69		588.71		589.42		589.76		589.36		589.53		589.49		590.00	
WELL BOTTOM	-	Feet	19.65		19.65		19.65		19.65		19.65		19.65		19.65		19.65		19.65	
ARSENIC	*0.025*	mg/l	0.010	U	0.010	U	0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.02	U
BARIUM	*1*	mg/l	0.039		0.038		0.038		0.040		0.036		0.042		0.045		0.046		0.04	
BORON, (TOTAL)	*1*	mg/l	0.20		0.19		0.19		0.17		0.17		0.18		0.13		0.18		0.15	
BROMIDE	-	mg/l	0.59		0.20		0.20	U	0.20	U	2.00	U	0.20	U	0.20	U	1.0	U	1.0	U
CHEMICAL OXYGEN DEMAND	-	mg/l	18.7		12.0		15.9		20.1		10.0		10.0		10.0	U	10.0	U	10.0	U
CHLORIDE	-	mg/l	100		137		107		108		108		144		110		169		160	
CHROMIUM	*0.05*	mg/l	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.021		0.0040	U	0.0100	U
Eh	-	M.Volts	-67		181		142		186		136		149		168		92		113	
HEXAVALENT CHROMIUM TOTAL	*0.05*	mg/l	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.02		0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.04		0.010	U	0.010	U
MANGANESE	*0.3*	mg/l	0.300		0.01		0.097		0.009		0.0160		0.0160		0.03		0.071		0.046	
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020		0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U
PH	*between 6.5 to 8.5*	S.U	6.74		7.22		7.00		7.19		7.20		7.39		7.57		7.71		7.3	
POTASSIUM	-	mg/l	4.7		4.7		5.3		4.0		4.2		4.6		2.6		4.6		5.1	
SELENIUM	*0.01*	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0250	U	0.025	U	0.025	U	0.025	U	0.025	U	0.02	U
SODIUM	*20*	mg/l	**70.9**		**75.5**		**77.5**		**61.6**		**58.3**		**77.7**		**75.6**		**94.0**		**88.9**	
SPECIFIC CONDUCTANCE	-	mg/l	1116		1144		1080		1204		1162		1294		1051		1218		1332	
SULFATE	*250*	mg/l	117		147		117		142		127		135		176		160		150	
TEMPERATURE	-	F	57.02		50.00		52.5		60.4		46.9		49.5		53.06		51.26		52.16	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	**805**		**829**		**727**		**854**		**755**		**774**		**723**		**818**		**886**	
TOTAL ORGANIC CARBON	-	mg/l	2.0		2.6		2.6		3.6		2.7		2.1		3.6		2.4		2.8	
TURBIDITY	*not exceed 5*	N.T.U	1.85		2.87		4.02		2.71		1.67		1.78		2.35		1.8		2.1	

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Well 12																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10	U	10	U	10	U	10	U	10	U	10	U	5.0	U	10.0	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	10.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10	U	10	U	10	U	5.0	U	10.0	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15	U	15	U	15	U	10.0	U	20.0	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		2.1		**5.5**		2.9		3.3		2.0		1.0	U	3.1		1.3	
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	**7.4**	U	1.0	U	1.0	U	1.0	U	1.0	U	**2.8**		1	

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[(1)]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Sump (Leachate)																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/27/2017		5/11/2018		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	602.08		602.08		602.08		602.08		602.08		602.08		602.08		602.08		602.08	
WATER LEVEL	-	Feet	NA		NA		NA		NA		NA		NA		NA		NA		NA	
WATER ELEVATION (BEFORE PU	-	Feet	NA		NA		NA		NA		NA		NA		NA		NA		NA	
WELL BOTTOM	-	Feet	NA		NA		NA		NA		NA		NA		NA		NA		NA	
ARSENIC	*0.025*	mg/l	0.010	U	0.012		0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U
BARIUM	*1*	mg/l	0.076		0.061		0.042		0.033		0.032		0.057		0.063		0.052		0.090	
BORON, (TOTAL)	*1*	mg/l	0.38		0.35		0.26		0.02		0.21		0.32		0.28		0.31		0.40	
BROMIDE	-	mg/l	2.7		1.7		1.7		2.7		1.2		2.3		2.6		2.0		2.7	
CHEMICAL OXYGEN DEMAND	-	mg/l	34.0		27.5		20.3		30.2		13.1		11.6	F1	10	U	20		24.3	
CHLORIDE	-	mg/l	133		150		81.6		103.0		91.5		70.6		160		119		180	
CHROMIUM	*0.05*	mg/l	**0.110**		0.03		0.037		0.004	U	0.019		0.037		0.012		0.011		0.029	
eH	-	M.Volts	108		135		83		128		112		105		164		75		55	
HEXAVALENT CHROMIUM TOTAL	*0.05*	mg/l	**0.081**		0.022		0.034		0.010	U	0.021		0.021		0.018		0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0052		0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
MANGANESE	*0.30*	mg/l	0.0420		0.007		0.0078		0.0520		0.016		0.016		0.035		0.041		0.18	
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.0002	U	0.0002	U
pH	*between 6.5 to 8.5*	S.U	7.90		8.01		7.90		8.08		7.92		7.59		7.56		8.47		8.09	
POTASSIUM	-	mg/l	82.1		86.5		68.7		42.8		41.4		74.2		113		83.1		143	
SELENIUM	*0.01*	mg/l	**0.030**		**0.012**		0.003		0.0250	U	0.025	U	0.025	U	0.025	U	0.025	U	0.02	U
SODIUM	*20*	mg/l	**66.5**		**72.8**		**47.2**		**45.1**		**40.6**		**74.0**		**73.7**		**68.3**		**112**	
SPECIFIC CONDUCTANCE	-	Umhos/cm	1107		1160		714		745		791		1202		1255		1083		1510	
SULFATE	*250*	mg/l	154		154		72		92.9		85.7		68.2		203		129		210	
TEMPERATURE	-	°F	60.26		45.68		53.60		53.1		43.88		45.50		50.54		56.12		52.7	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	**834**		**778**		443		480		456		**681**		**781**		**648**		**1030**	
TOTAL ORGANIC CARBON	-	mg/l	9.0		7.0		5.2		6.5		5.8		6.8		7.0		6.1		9.6	
TURBIDITY	*not exceed 5*	N.T.U	2.50		2.27		1.76		1.72		0.92		1.48		1.03		1.8		2.2	

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CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
Sump (Leachate)																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	2.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10	U	10	U	10	U	10	U	20	U	20	U	5.0	U	10.0	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	10.0	U	10.0	U	5.0	U	10.0	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	10.0	U	10.0	U	5.0	U	10.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10	U	20	U	20	U	5.0	U	10.0	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15	U	30	U	30	U	10.0	U	20.0	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	4.0	U	4.0	U	1.0	U	1.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	5.0	U	1.0	U	2.0	U	2.0	U	1.0	U	2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	10.0	U	10.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	2.0	U	2.0	U	1.0	U	1.0	U

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Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
BR-1																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/28/2017		5/11/2018		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	603.79		603.79		603.79		603.79		603.79		603.79		603.79		603.79		603.79	
WATER LEVEL	-	Feet	13.19		10.59		11.52		10.44		10.52		10.63		10.34		10.43		9.90	
WATER ELEVATION (BEFORE PU	-	Feet	590.60		593.20		592.27		593.35		593.27		593.16		593.45		593.36		593.89	
WELL BOTTOM	-	Feet	35.85		35.85		35.85		35.85		39.92		39.92		39.92		39.92		39.92	
ARSENIC	*0.025*	mg/l	0.010	U	0.010	U	0.010	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.02	U
BARIUM	*1*	mg/l	0.14		0.16		0.13		0.13		0.088		0.10		0.11		0.11		0.16	
BORON, (TOTAL)	*1*	mg/l	0.13		0.15		0.13		0.15		0.12		0.13		0.12		0.14		0.12	
BROMIDE	-	mg/l	0.41		0.26		0.20	U	0.64		0.40		0.20	U	0.21		0.20	U	0.50	U
CHEMICAL OXYGEN DEMAND	-	mg/l	14.9		10.0	U	15.9		24.5		10.0		10.0	U / F1	10	U	100	U	11.4	
CHLORIDE	-	mg/l	44.4		59.9		38.7		54.4		44.6		51.2		55.8		11.7		69	
CHROMIUM	*0.05*	mg/l	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0100	U
eH	-	M.Volts	-125		151		117		48		114		32.000	U	159		13		49	
HEXAVALENT CHROMIUM TOTAL	*0.05*	mg/l	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
LEAD	*0.025*	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0100	U	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
MANGANESE	*0.3*	mg/l	**0.55**		**0.55**		**0.45**		**0.50**		0.20		0.21		0.28		**0.31**		**0.61**	
MERCURY	*0.0007*	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U
pH	*between 6.5 to 8.5*	S.U	7.95		7.56		7.80		7.57		7.69		7.59		7.77		7.81		7.81	
POTASSIUM	-	mg/l	8.3		10.2		11.3		9.2		8.7		9.4	^	9.0		8.7		10.9	
SELENIUM	*0.01*	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0250	U	0.025	U	0.025	U	0.025	U	0.025	U	0.02	U
SODIUM	*20*	mg/l	**38.1**		**39.9**		**37.3**		**37.0**		**30.9**		**36.2**		**38.3**		**41.7**		**52.1**	
SPECIFIC CONDUCTANCE	-	Umhos/cm	495		563		419		549		450		488		482		565		431	
SULFATE	*250*	mg/l	57.6		77.6		59.2		74.3		51.5		53.8		60.9		13.8		75	
TEMPERATURE	-	°F	57.38		51.98		53.60		56.12		49.1		50.2		52.88		51		52.34	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	329		364		288		385		267		271		309		325		372	
TOTAL ORGANIC CARBON	-	mg/l	2.9		2.5		4.1		3.9		3.3		2.7		2.9		2.8		3.6	
TURBIDITY	*not exceed 5*	N.T.U	1.90		2.90		3.10		2.48		1.10		1.26		1.95		1.67		2	

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
BR-1																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-Butanone / Methyl Ethyl Ketone	-	ug/l	-		10	U	10	U	10	U	10	U	10	U	10	U	5	U	10	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	10	U
4-Methyl-2-pentanone / Methyl Isobutyl Ketone	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5	U	10	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	10	U	10	U	10	U	5	U	10	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	15	U	15	U	15	U	10	U	20	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	B	1.2	B	5	B
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	2.0	U	2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

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Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
SW-1																				
SAMPLE DATE	-	NA	10/18/2012		4/26/2013		10/25/2013		5/13/2014		4/23/2015		4/28/2016		4/27/2017		SW-1 was DRY and not sampled		5/8, 9, 17/2019	
TOP OF CASING ELEVATION	-	Feet	596.72		596.72		596.72		596.72		NS		NS		596.72					
WATER LEVEL	-	Feet	NA		NA		NA		NA		NS		NS		NA				NA	
WATER ELEVATION (BEFORE PU	-	Feet	NA		NA		NA		NA		NS		NS		NA				NA	
WELL BOTTOM	-	Feet	NA		NA		NA		NA		NS		NS		NA				NA	
ARSENIC	0.15[2]	mg/l	-		0.01	U	0.010	U	0.015	U	NS		NS		0.015	U			0.02	U
BARIUM	*1*	mg/l	-		0.033		0.016		0.021		NS		NS		0.036				0.064	
BORON, (TOTAL)	10[2]	mg/l	-		0.13		0.088		0.17		NS		NS		0.2				0.15	
BROMIDE	-	mg/l	-		0.2	U	0.20	U	0.20	U	NS		NS		0.20	U			0.5	U
CHEMICAL OXYGEN DEMAND	-	mg/l	-		44.5		45.2		58.9		NS		NS		27.1				54.9	
CHLORIDE	-	mg/l	-		23.2		10.7		18.2		NS		NS		17.2				16	
CHROMIUM	*0.05*	mg/l	-		0.0074		0.004	U	0.0040	U	NS		NS		0.032				0.036	
Eh	-	M.Volts	-		109		91		124		NS		NS		187				116	
HEXAVALENT CHROMIUM TOTAL	0.011[2]	mg/l	-		0.01	U	0.010	U	0.010	U	NS		NS		0.026				0.035	H
LEAD	*0.025*	mg/l	-		0.005	U	0.0050	U	0.0100	U	NS		NS		0.0100	U			0.01	U
MANGANESE	*0.3*	mg/l	-		0.026		0.0038		0.016		NS		NS		0.023				**0.87**	
MERCURY	*0.0007*	mg/l	-		0.0002	U	0.00020	U	0.00020	U	NS		NS		0.00020	U			0.0002	U
PH	*between 6.5 to 8.5*	S.U	-		8.05		7.9		**8.51**		NS		NS		7.69				**8.38**	
POTASSIUM	-	mg/l	-		11.7		6.3		10.8		NS		NS		11.7				9.6	
SELENIUM	0.0046[2]	mg/l	-		0.001	U	0.0010	U	0.0250	U	NS		NS		0.0250	U			0.02	U
SODIUM	*20*	mg/l	-		17.5		13.3		19.1		NS		NS		16.5				23.6	
SPECIFIC CONDUCTANCE	-	Umhos/cm	-		535		435		480		NS		NS		713				698	
SULFATE	*250*	mg/l	-		37.2		53.9		15.1		NS		NS		59.6				26	
TEMPERATURE	-	°F	-		60.98		51.98		65.48		NS		NS		65.96				75.02	
TOTAL DISSOLVED SOLIDS	*not to exceed 500*	mg/l	-		366		281		311		NS		NS		390				384	
TOTAL ORGANIC CARBON	-	mg/l	-		13.9		13.7		18.4		NS		NS		13				15.8	
TURBIDITY	*not exceed 5*	N.T.U	-		6.59		3.12		4.69		NS		NS		3.01				3.9	

Water Quality Analytical Summary

CC Metals and Alloys, LLC

Town of Niagara, NY - Witmer Road

Quarter	Class GA Standard[1]	Units	2nd H/12	Qual.	1st H/13	Qual.	2nd H/13	Qual.	2014	Qual.	2015	Qual.	2016	Qual.	2017	Qual.	2018	Qual.	2019	Qual.
SW-1																				
1,1,1,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,1,1-Trichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,1,2,2-Tetrachloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,1,2-Trichloroethane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,1-Dichloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,1-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,2,3-Trichloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,2-Dibromo-3-chloropropane	*0.04*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		2.0	U			2.0	U
1,2-Dibromoethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,2-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,2-Dichloroethane	*0.6*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,2-Dichloropropane	*1.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
1,4-Dichlorobenzene	*3.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
2-Butanone	-	ug/l	-		10	U	10	U	10	U	NS		NS		10	U			10.0	U
2-Hexanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	NS		NS		10.0	U			10.0	U
4-Methyl-2-pentanone	-	ug/l	-		5.0	U	5.0	U	5.0	U	NS		NS		10.0	U			10.0	U
Acetone	-	ug/l	-		10.0	U	10.0	U	10.0	U	NS		NS		10.0	U			10.0	U
Acetonitrile	-	ug/l	-		40.0	U	40.0	U	15.0	U	NS		NS		20.0	U			20.0	U
Benzene	*1*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Bromochloromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Bromodichloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Bromoform	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Bromomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Carbon Disulfide	*60*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Carbon Tetrachloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Chlorobenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Chloroethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Chloroform	*7.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Chloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
cis-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
cis-1,3-Dichloropropene	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Dibromochloromethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Dibromomethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Ethylbenzene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Iodomethane	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
m/p-Xylenes	-	ug/l	-		2.0	U	2.0	U	2.0	U	NS		NS		2.0	U			2.0	U
Methylene chloride	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		5.0	U			5.0	U
o-Xylene	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Styrene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Tetrachloroethene	-	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Toluene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
trans-1,2-Dichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
trans-1,3-Dichloropropene	*0.4*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
trans-1,4-Dichloro-2-butene	*5.0*	ug/l	-		5.0	U	5.0	U	1.0	U	NS		NS		2.5	U			2.5	U
Trichloroethene	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Trichlorofluoromethane	*5.0*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U
Vinyl acetate	-	ug/l	-		5.0	U	5.0	U	5.0	U	NS		NS		2.0	U			2.0	U
Vinyl chloride	*2*	ug/l	-		1.0	U	1.0	U	1.0	U	NS		NS		1.0	U			1.0	U

[1] Class GA fresh groundwaters; Water Quality Standards Surface Waters and Groundwater, NYSDEC Chapter X Division of Water, Part 703.5

[2] Class C fresh surface waters; Water Quality Standards Surface Waters and Groundwater, NYSDEC Chapter X Division of Water, Part 703.5

Qualifiers:

B: Analyte was detected in the associated Method Blank.

CF6: Results confirmed by reanalysis.

D: Data reported from a dilution.

D02: Dilution required due to sample matrix effects.

D08: Dilution required due to high concentration of target analyte(s)

F1: MS and/or MSD Recovery is outside acceptance limits

U: Not detected at the reporting limit (or MDL or EDL if shown)

H - Exceeded the laboratory holding time

^ Instrument related QC is outside acceptance limits

NS: Not Sampled

Result in Bold Text: Exceeds Class GA Standard

APPENDIX 5

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-117066-1
Client Project/Site: Witmer Road G/W
Sampling Event: Witmer Road G/W

For:
CC Metals and Alloys LLC
PO BOX 217
Calvert City, Kentucky 42029

Attn: Alice Brown

Joseph V. Giacomazza

Authorized for release by:
5/12/2017 4:08:17 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

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

Job ID: 480-117066-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-117066-1

Comments
No additional comments.

Receipt
The samples were received on 4/27/2017 3:20 PM and 4/28/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.0º C, 16.9º C and 19.5º C.

GC/MS VOA
Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Leachate (480-117066-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-356264 recovered above the upper control limit for Iodomethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-3R (480-117066-1), MW-14N (480-117066-2), MW-5R (480-117066-3), Leachate (480-117066-4), SW-1 (480-117066-5) and Trip Blank (480-117066-6).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-356264 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Vinyl acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: MW-3R (480-117066-1), MW-14N (480-117066-2), MW-5R (480-117066-3), Leachate (480-117066-4), SW-1 (480-117066-5) and Trip Blank (480-117066-6).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-356486 recovered outside control limits for the following analytes: Vinyl acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: BR-1 (480-117152-1), MW-12 (480-117152-2) and Trip Blank (480-117152-3).

Method(s) 8260C: The method blank for analytical batch 480-356486 contained Methylene Chloride above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated sample were not re-extracted and/or re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL. The following sample is impacted: BR-1 (480-117152-1) and Trip Blank (480-117152-3).

Method(s) 8260C: The method blank for preparation batch 356486 contained Methylene Chloride above the reporting limit (RL). None of the samples associated with this method blank contained the target compound over the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples were not performed. The following sample is impacted: MW-12 (480-117152-2).

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-12 (480-117152-2). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-3R (480-117066-1), MW-14N (480-117066-2), MW-5R (480-117066-3) and Leachate (480-117066-4). Elevated reporting limits (RLs) are provided.

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

Metals
Method(s) 6010C: The Low Level Continuing Calibration Verification (CCVL 480-356355/28) contained Total Boron outside the control limits. All reported samples (MB 480-354879/1-A) associated with this CCVL were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples was not performed.

Job ID: 480-117066-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

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

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

Detection Summary

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-3R — Lab Sample ID: 480-117066-1

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	260				millivolts	1		Field Sampling	Total/NA
pH, Field	7.39				SU	1		Field Sampling	Total/NA
Specific Conductance	1125				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	12.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.55				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.0020		mg/L	1		6010C	Total/NA
Boron	0.14		0.020		mg/L	1		6010C	Total/NA
Chromium	0.0091		0.0040		mg/L	1		6010C	Total/NA
Sodium	25.4		1.0		mg/L	1		6010C	Total/NA
Chloride	50.6		2.5		mg/L	5		300.0	Total/NA
Sulfate	141		10.0		mg/L	5		300.0	Total/NA
Total Dissolved Solids	669		10.0		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon	2.1		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: MW-14N — Lab Sample ID: 480-117066-2

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	242				millivolts	1		Field Sampling	Total/NA
pH, Field	7.06				SU	1		Field Sampling	Total/NA
Specific Conductance	1427				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	11.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.83				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	24		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	1.8		1.0		ug/L	1		8260C	Total/NA
Barium	0.12		0.0020		mg/L	1		6010C	Total/NA
Boron	0.11		0.020		mg/L	1		6010C	Total/NA
Manganese	0.077		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.6		0.50		mg/L	1		6010C	Total/NA
Sodium	75.6		1.0		mg/L	1		6010C	Total/NA
Chloride	151		2.5		mg/L	5		300.0	Total/NA
Sulfate	176		10.0		mg/L	5		300.0	Total/NA
Total Dissolved Solids	885		10.0		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon	2.5		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: MW-5R — Lab Sample ID: 480-117066-3

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	218				millivolts	1		Field Sampling	Total/NA
pH, Field	7.92				SU	1		Field Sampling	Total/NA
Specific Conductance	861				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	10.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.93				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.049		0.0020		mg/L	1		6010C	Total/NA
Boron	0.17		0.020		mg/L	1		6010C	Total/NA
Manganese	0.0039		0.0030		mg/L	1		6010C	Total/NA
Potassium	18.8		0.50		mg/L	1		6010C	Total/NA
Sodium	68.3		1.0		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-5R (Continued) — Lab Sample ID: 480-117066-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	82.7		2.5		mg/L	5		300.0	Total/NA
Sulfate	167		10.0		mg/L	5		300.0	Total/NA
Total Dissolved Solids	531		10.0		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon	4.6		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: Leachate — Lab Sample ID: 480-117066-4

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	164				millivolts	1		Field Sampling	Total/NA
pH, Field	7.56				SU	1		Field Sampling	Total/NA
Specific Conductance	1255				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	10.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.03				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.063		0.0020		mg/L	1		6010C	Total/NA
Boron	0.28		0.020		mg/L	1		6010C	Total/NA
Chromium	0.012		0.0040		mg/L	1		6010C	Total/NA
Manganese	0.035		0.0030		mg/L	1		6010C	Total/NA
Potassium	113		0.50		mg/L	1		6010C	Total/NA
Sodium	73.7		1.0		mg/L	1		6010C	Total/NA
Bromide	2.6		1.0		mg/L	5		300.0	Total/NA
Chloride	160		2.5		mg/L	5		300.0	Total/NA
Sulfate	203		10.0		mg/L	5		300.0	Total/NA
Total Dissolved Solids	781		10.0		mg/L	1		SM 2540C	Total/NA
Chromium, hexavalent	0.018		0.010		mg/L	1		SM 3500 CR B	Total/NA
Total Organic Carbon	7.0		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: SW-1 — Lab Sample ID: 480-117066-5

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	187				millivolts	1		Field Sampling	Total/NA
pH, Field	7.69				SU	1		Field Sampling	Total/NA
Specific Conductance	713				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	17.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.01				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.036		0.0020		mg/L	1		6010C	Total/NA
Boron	0.20		0.020		mg/L	1		6010C	Total/NA
Chromium	0.032		0.0040		mg/L	1		6010C	Total/NA
Manganese	0.023		0.0030		mg/L	1		6010C	Total/NA
Potassium	11.7		0.50		mg/L	1		6010C	Total/NA
Sodium	16.5		1.0		mg/L	1		6010C	Total/NA
Chloride	17.2		0.50		mg/L	1		300.0	Total/NA
Sulfate	59.6		2.0		mg/L	1		300.0	Total/NA
Chemical Oxygen Demand	27.1		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	390		10.0		mg/L	1		SM 2540C	Total/NA
Chromium, hexavalent	0.026		0.010		mg/L	1		SM 3500 CR B	Total/NA
Total Organic Carbon	13.0		1.0		mg/L	1		SM 5310D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: Trip Blank — Lab Sample ID: 480-117066-6

No Detections.

Client Sample ID: BR-1 — Lab Sample ID: 480-117152-1

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	159				millivolts	1		Field Sampling	Total/NA
pH, Field	7.77				SU	1		Field Sampling	Total/NA
Specific Conductance	482				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	11.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.95				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.2	B	1.0		ug/L	1		8260C	Total/NA
Barium	0.11		0.0020		mg/L	1		6010C	Total/NA
Boron	0.12		0.020		mg/L	1		6010C	Total/NA
Manganese	0.28		0.0030		mg/L	1		6010C	Total/NA
Potassium	9.0		0.50		mg/L	1		6010C	Total/NA
Sodium	38.3		1.0		mg/L	1		6010C	Total/NA
Bromide	0.21		0.20		mg/L	1		300.0	Total/NA
Chloride	55.8		0.50		mg/L	1		300.0	Total/NA
Sulfate	60.9		2.0		mg/L	1		300.0	Total/NA
Total Dissolved Solids	309		10.0		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon	2.9		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 480-117152-2

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	168				millivolts	1		Field Sampling	Total/NA
pH, Field	7.57				SU	1		Field Sampling	Total/NA
Specific Conductance	1051				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	11.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	2.35				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.045		0.0020		mg/L	1		6010C	Total/NA
Boron	0.13		0.020		mg/L	1		6010C	Total/NA
Chromium	0.021		0.0040		mg/L	1		6010C	Total/NA
Lead	0.040		0.010		mg/L	1		6010C	Total/NA
Manganese	0.030		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.9		0.50		mg/L	1		6010C	Total/NA
Sodium	64.2		1.0		mg/L	1		6010C	Total/NA
Chloride	110		2.5		mg/L	5		300.0	Total/NA
Sulfate	103		10.0		mg/L	5		300.0	Total/NA
Total Dissolved Solids	723		10.0		mg/L	1		SM 2540C	Total/NA
Chromium, hexavalent	0.020		0.010		mg/L	1		SM 3500 CR B	Total/NA
Total Organic Carbon	3.6		1.0		mg/L	1		SM 5310D	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-117152-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.1	B	1.0		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-3R
Date Collected: 04/27/17 10:15
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1-Dichloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,1-Dichloroethene	ND		1.0		ug/L			05/08/17 23:26	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/08/17 23:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/08/17 23:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/08/17 23:26	1
1,2-Dibromoethane	ND		1.0		ug/L			05/08/17 23:26	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:26	1
1,2-Dichloroethane	ND		1.0		ug/L			05/08/17 23:26	1
1,2-Dichloropropane	ND		1.0		ug/L			05/08/17 23:26	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:26	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:26	1
2-Butanone (MEK)	ND		10		ug/L			05/08/17 23:26	1
2-Hexanone	ND		5.0		ug/L			05/08/17 23:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/08/17 23:26	1
Acetone	ND		10		ug/L			05/08/17 23:26	1
Acetonitrile	ND		15		ug/L			05/08/17 23:26	1
Benzene	ND		1.0		ug/L			05/08/17 23:26	1
Bromochloromethane	ND		1.0		ug/L			05/08/17 23:26	1
Bromodichloromethane	ND		1.0		ug/L			05/08/17 23:26	1
Bromoform	ND		1.0		ug/L			05/08/17 23:26	1
Bromomethane	ND		1.0		ug/L			05/08/17 23:26	1
Carbon disulfide	ND		1.0		ug/L			05/08/17 23:26	1
Carbon tetrachloride	ND		1.0		ug/L			05/08/17 23:26	1
Chlorobenzene	ND		1.0		ug/L			05/08/17 23:26	1
Chloroethane	ND		1.0		ug/L			05/08/17 23:26	1
Chloroform	ND		1.0		ug/L			05/08/17 23:26	1
Chloromethane	ND		1.0		ug/L			05/08/17 23:26	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/08/17 23:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 23:26	1
Cyclohexane	ND		1.0		ug/L			05/08/17 23:26	1
Dibromochloromethane	ND		1.0		ug/L			05/08/17 23:26	1
Dibromomethane	ND		1.0		ug/L			05/08/17 23:26	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			05/08/17 23:26	1
Ethylbenzene	ND		1.0		ug/L			05/08/17 23:26	1
Iodomethane	ND		1.0		ug/L			05/08/17 23:26	1
Isopropylbenzene	ND		1.0		ug/L			05/08/17 23:26	1
m,p-Xylene	ND		2.0		ug/L			05/08/17 23:26	1
Methyl acetate	ND		2.5		ug/L			05/08/17 23:26	1
Methylcyclohexane	ND		1.0		ug/L			05/08/17 23:26	1
Methylene Chloride	ND		1.0		ug/L			05/08/17 23:26	1
o-Xylene	ND		1.0		ug/L			05/08/17 23:26	1
Styrene	ND		1.0		ug/L			05/08/17 23:26	1
Tetrachloroethene	ND		1.0		ug/L			05/08/17 23:26	1
Toluene	ND		1.0		ug/L			05/08/17 23:26	1

Client Sample ID: MW-3R
Date Collected: 04/27/17 10:15
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/08/17 23:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 23:26	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/08/17 23:26	1
Trichloroethene	ND		1.0		ug/L			05/08/17 23:26	1
Trichlorofluoromethane	ND		1.0		ug/L			05/08/17 23:26	1
Vinyl acetate	ND	*	5.0		ug/L			05/08/17 23:26	1
Vinyl chloride	ND		1.0		ug/L			05/08/17 23:26	1
Xylenes, Total	ND		2.0		ug/L			05/08/17 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*05/08/17 23:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*05/08/17 23:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/08/17 23:26*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 22:39	1
Barium	**0.028**		0.0020		mg/L		05/01/17 10:10	05/08/17 22:39	1
Boron	**0.14**		0.020		mg/L		05/01/17 10:10	05/09/17 13:03	1
Chromium	**0.0091**		0.0040		mg/L		05/01/17 10:10	05/08/17 22:39	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 22:39	1
Manganese	ND		0.0030		mg/L		05/01/17 10:10	05/08/17 22:39	1
Potassium	ND		0.50		mg/L		05/01/17 10:10	05/08/17 22:39	1
Sodium	**25.4**		1.0		mg/L		05/01/17 10:10	05/08/17 22:39	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 22:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/11/17 19:37	5
Chloride	**50.6**		2.5		mg/L			05/11/17 19:37	5
Sulfate	**141**		10.0		mg/L			05/11/17 19:37	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/03/17 18:04	1
Total Dissolved Solids	**669**		10.0		mg/L			05/04/17 03:14	1
Chromium, hexavalent	ND		0.010		mg/L			04/28/17 06:06	1
Total Organic Carbon	**2.1**		1.0		mg/L			05/03/17 02:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**260**				millivolts			04/27/17 10:15	1
pH, Field	**7.39**				SU			04/27/17 10:15	1
Specific Conductance	**1125**				umhos/cm			04/27/17 10:15	1
Temperature, Field (C)	**12.0**				Degrees C			04/27/17 10:15	1
Turbidity, Field	**1.55**				NTU			04/27/17 10:15	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-14N
Date Collected: 04/27/17 11:35
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1-Dichloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,1-Dichloroethene	ND		1.0		ug/L			05/08/17 23:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/08/17 23:53	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/08/17 23:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/08/17 23:53	1
1,2-Dibromoethane	ND		1.0		ug/L			05/08/17 23:53	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:53	1
1,2-Dichloroethane	ND		1.0		ug/L			05/08/17 23:53	1
1,2-Dichloropropane	ND		1.0		ug/L			05/08/17 23:53	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:53	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/08/17 23:53	1
2-Butanone (MEK)	ND		10		ug/L			05/08/17 23:53	1
2-Hexanone	ND		5.0		ug/L			05/08/17 23:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/08/17 23:53	1
Acetone	ND		10		ug/L			05/08/17 23:53	1
Acetonitrile	ND		15		ug/L			05/08/17 23:53	1
Benzene	ND		1.0		ug/L			05/08/17 23:53	1
Bromochloromethane	ND		1.0		ug/L			05/08/17 23:53	1
Bromodichloromethane	ND		1.0		ug/L			05/08/17 23:53	1
Bromoform	ND		1.0		ug/L			05/08/17 23:53	1
Bromomethane	ND		1.0		ug/L			05/08/17 23:53	1
Carbon disulfide	ND		1.0		ug/L			05/08/17 23:53	1
Carbon tetrachloride	ND		1.0		ug/L			05/08/17 23:53	1
Chlorobenzene	ND		1.0		ug/L			05/08/17 23:53	1
Chloroethane	ND		1.0		ug/L			05/08/17 23:53	1
Chloroform	ND		1.0		ug/L			05/08/17 23:53	1
Chloromethane	ND		1.0		ug/L			05/08/17 23:53	1
cis-1,2-Dichloroethene	**24**		1.0		ug/L			05/08/17 23:53	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 23:53	1
Cyclohexane	ND		1.0		ug/L			05/08/17 23:53	1
Dibromochloromethane	ND		1.0		ug/L			05/08/17 23:53	1
Dibromomethane	ND		1.0		ug/L			05/08/17 23:53	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			05/08/17 23:53	1
Ethylbenzene	ND		1.0		ug/L			05/08/17 23:53	1
Iodomethane	ND		1.0		ug/L			05/08/17 23:53	1
Isopropylbenzene	ND		1.0		ug/L			05/08/17 23:53	1
m,p-Xylene	ND		2.0		ug/L			05/08/17 23:53	1
Methyl acetate	ND		2.5		ug/L			05/08/17 23:53	1
Methylcyclohexane	ND		1.0		ug/L			05/08/17 23:53	1
Methylene Chloride	ND		1.0		ug/L			05/08/17 23:53	1
o-Xylene	ND		1.0		ug/L			05/08/17 23:53	1
Styrene	ND		1.0		ug/L			05/08/17 23:53	1
Tetrachloroethene	ND		1.0		ug/L			05/08/17 23:53	1
Toluene	ND		1.0		ug/L			05/08/17 23:53	1

Client Sample ID: MW-14N
Date Collected: 04/27/17 11:35
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/08/17 23:53	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 23:53	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/08/17 23:53	1
Trichloroethene	ND		1.0		ug/L			05/08/17 23:53	1
Trichlorofluoromethane	ND		1.0		ug/L			05/08/17 23:53	1
Vinyl acetate	ND	*	5.0		ug/L			05/08/17 23:53	1
Vinyl chloride	**1.8**		1.0		ug/L			05/08/17 23:53	1
Xylenes, Total	ND		2.0		ug/L			05/08/17 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*05/08/17 23:53*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/08/17 23:53*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/08/17 23:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 22:42	1
Barium	**0.12**		0.0020		mg/L		05/01/17 10:10	05/08/17 22:42	1
Boron	**0.11**		0.020		mg/L		05/01/17 10:10	05/09/17 13:07	1
Chromium	ND		0.0040		mg/L		05/01/17 10:10	05/08/17 22:42	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 22:42	1
Manganese	**0.077**		0.0030		mg/L		05/01/17 10:10	05/08/17 22:42	1
Potassium	**2.6**		0.50		mg/L		05/01/17 10:10	05/08/17 22:42	1
Sodium	**75.6**		1.0		mg/L		05/01/17 10:10	05/08/17 22:42	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 22:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/11/17 19:51	5
Chloride	**151**		2.5		mg/L			05/11/17 19:51	5
Sulfate	**176**		10.0		mg/L			05/11/17 19:51	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/03/17 18:04	1
Total Dissolved Solids	**885**		10.0		mg/L			05/04/17 03:14	1
Chromium, hexavalent	ND		0.010		mg/L			04/28/17 06:06	1
Total Organic Carbon	**2.5**		1.0		mg/L			05/03/17 03:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**242**				millivolts			04/27/17 11:35	1
pH, Field	**7.06**				SU			04/27/17 11:35	1
Specific Conductance	**1427**				umhos/cm			04/27/17 11:35	1
Temperature, Field (C)	**11.2**				Degrees C			04/27/17 11:35	1
Turbidity, Field	**1.83**				NTU			04/27/17 11:35	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-5R
Date Collected: 04/27/17 13:15
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-3
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1-Dichloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,1-Dichloroethene	ND		1.0		ug/L			05/09/17 00:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/09/17 00:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/09/17 00:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/09/17 00:20	1
1,2-Dibromoethane	ND		1.0		ug/L			05/09/17 00:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/09/17 00:20	1
1,2-Dichloroethane	ND		1.0		ug/L			05/09/17 00:20	1
1,2-Dichloropropane	ND		1.0		ug/L			05/09/17 00:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/09/17 00:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/09/17 00:20	1
2-Butanone (MEK)	ND		10		ug/L			05/09/17 00:20	1
2-Hexanone	ND		5.0		ug/L			05/09/17 00:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/09/17 00:20	1
Acetone	ND		10		ug/L			05/09/17 00:20	1
Acetonitrile	ND		15		ug/L			05/09/17 00:20	1
Benzene	ND		1.0		ug/L			05/09/17 00:20	1
Bromochloromethane	ND		1.0		ug/L			05/09/17 00:20	1
Bromodichloromethane	ND		1.0		ug/L			05/09/17 00:20	1
Bromoform	ND		1.0		ug/L			05/09/17 00:20	1
Bromomethane	ND		1.0		ug/L			05/09/17 00:20	1
Carbon disulfide	ND		1.0		ug/L			05/09/17 00:20	1
Carbon tetrachloride	ND		1.0		ug/L			05/09/17 00:20	1
Chlorobenzene	ND		1.0		ug/L			05/09/17 00:20	1
Chloroethane	ND		1.0		ug/L			05/09/17 00:20	1
Chloroform	ND		1.0		ug/L			05/09/17 00:20	1
Chloromethane	ND		1.0		ug/L			05/09/17 00:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 00:20	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 00:20	1
Cyclohexane	ND		1.0		ug/L			05/09/17 00:20	1
Dibromochloromethane	ND		1.0		ug/L			05/09/17 00:20	1
Dibromomethane	ND		1.0		ug/L			05/09/17 00:20	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			05/09/17 00:20	1
Ethylbenzene	ND		1.0		ug/L			05/09/17 00:20	1
Iodomethane	ND		1.0		ug/L			05/09/17 00:20	1
Isopropylbenzene	ND		1.0		ug/L			05/09/17 00:20	1
m,p-Xylene	ND		2.0		ug/L			05/09/17 00:20	1
Methyl acetate	ND		2.5		ug/L			05/09/17 00:20	1
Methylcyclohexane	ND		1.0		ug/L			05/09/17 00:20	1
Methylene Chloride	ND		1.0		ug/L			05/09/17 00:20	1
o-Xylene	ND		1.0		ug/L			05/09/17 00:20	1
Styrene	ND		1.0		ug/L			05/09/17 00:20	1
Tetrachloroethene	ND		1.0		ug/L			05/09/17 00:20	1
Toluene	ND		1.0		ug/L			05/09/17 00:20	1

Client Sample ID: MW-5R
Date Collected: 04/27/17 13:15
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-3
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 00:20	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 00:20	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/09/17 00:20	1
Trichloroethene	ND		1.0		ug/L			05/09/17 00:20	1
Trichlorofluoromethane	ND		1.0		ug/L			05/09/17 00:20	1
Vinyl acetate	ND	*	5.0		ug/L			05/09/17 00:20	1
Vinyl chloride	ND		1.0		ug/L			05/09/17 00:20	1
Xylenes, Total	ND		2.0		ug/L			05/09/17 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*05/09/17 00:20*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/09/17 00:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/09/17 00:20*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 22:57	1
Barium	**0.049**		0.0020		mg/L		05/01/17 10:10	05/08/17 22:57	1
Boron	**0.17**		0.020		mg/L		05/01/17 10:10	05/08/17 22:57	1
Chromium	ND		0.0040		mg/L		05/01/17 10:10	05/08/17 22:57	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 22:57	1
Manganese	**0.0039**		0.0030		mg/L		05/01/17 10:10	05/08/17 22:57	1
Potassium	**18.8**		0.50		mg/L		05/01/17 10:10	05/08/17 22:57	1
Sodium	**68.3**		1.0		mg/L		05/01/17 10:10	05/08/17 22:57	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 22:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/11/17 20:06	5
Chloride	**82.7**		2.5		mg/L			05/11/17 20:06	5
Sulfate	**167**		10.0		mg/L			05/11/17 20:06	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/04/17 19:42	1
Total Dissolved Solids	**531**		10.0		mg/L			05/04/17 03:14	1
Chromium, hexavalent	ND		0.010		mg/L			04/28/17 06:06	1
Total Organic Carbon	**4.6**		1.0		mg/L			05/03/17 03:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**218**				millivolts			04/27/17 13:15	1
pH, Field	**7.92**				SU			04/27/17 13:15	1
Specific Conductance	**861**				umhos/cm			04/27/17 13:15	1
Temperature, Field (C)	**10.7**				Degrees C			04/27/17 13:15	1
Turbidity, Field	**0.93**				NTU			04/27/17 13:15	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: Leachate
Date Collected: 04/27/17 14:45
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-4
Matrix: Leachate

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1,1-Trichloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1,2-Trichloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1-Dichloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,1-Dichloroethene	ND		2.0		ug/L			05/09/17 00:47	2
1,2,3-Trichloropropane	ND		2.0		ug/L			05/09/17 00:47	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			05/09/17 00:47	2
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/09/17 00:47	2
1,2-Dibromoethane	ND		2.0		ug/L			05/09/17 00:47	2
1,2-Dichlorobenzene	ND		2.0		ug/L			05/09/17 00:47	2
1,2-Dichloroethane	ND		2.0		ug/L			05/09/17 00:47	2
1,2-Dichloropropane	ND		2.0		ug/L			05/09/17 00:47	2
1,3-Dichlorobenzene	ND		2.0		ug/L			05/09/17 00:47	2
1,4-Dichlorobenzene	ND		2.0		ug/L			05/09/17 00:47	2
2-Butanone (MEK)	ND		20		ug/L			05/09/17 00:47	2
2-Hexanone	ND		10		ug/L			05/09/17 00:47	2
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/09/17 00:47	2
Acetone	ND		20		ug/L			05/09/17 00:47	2
Acetonitrile	ND		30		ug/L			05/09/17 00:47	2
Benzene	ND		2.0		ug/L			05/09/17 00:47	2
Bromochloromethane	ND		2.0		ug/L			05/09/17 00:47	2
Bromodichloromethane	ND		2.0		ug/L			05/09/17 00:47	2
Bromoform	ND		2.0		ug/L			05/09/17 00:47	2
Bromomethane	ND		2.0		ug/L			05/09/17 00:47	2
Carbon disulfide	ND		2.0		ug/L			05/09/17 00:47	2
Carbon tetrachloride	ND		2.0		ug/L			05/09/17 00:47	2
Chlorobenzene	ND		2.0		ug/L			05/09/17 00:47	2
Chloroethane	ND		2.0		ug/L			05/09/17 00:47	2
Chloroform	ND		2.0		ug/L			05/09/17 00:47	2
Chloromethane	ND		2.0		ug/L			05/09/17 00:47	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/09/17 00:47	2
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/09/17 00:47	2
Cyclohexane	ND		2.0		ug/L			05/09/17 00:47	2
Dibromochloromethane	ND		2.0		ug/L			05/09/17 00:47	2
Dibromomethane	ND		2.0		ug/L			05/09/17 00:47	2
Dichlorodifluoromethane	ND	*	2.0		ug/L			05/09/17 00:47	2
Ethylbenzene	ND		2.0		ug/L			05/09/17 00:47	2
Iodomethane	ND		2.0		ug/L			05/09/17 00:47	2
Isopropylbenzene	ND		2.0		ug/L			05/09/17 00:47	2
m,p-Xylene	ND		4.0		ug/L			05/09/17 00:47	2
Methyl acetate	ND		5.0		ug/L			05/09/17 00:47	2
Methylcyclohexane	ND		2.0		ug/L			05/09/17 00:47	2
Methylene Chloride	ND		2.0		ug/L			05/09/17 00:47	2
o-Xylene	ND		2.0		ug/L			05/09/17 00:47	2
Styrene	ND		2.0		ug/L			05/09/17 00:47	2
Tetrachloroethene	ND		2.0		ug/L			05/09/17 00:47	2
Toluene	ND		2.0		ug/L			05/09/17 00:47	2

Client Sample ID: Leachate
Date Collected: 04/27/17 14:45
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-4
Matrix: Leachate

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/09/17 00:47	2
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/09/17 00:47	2
trans-1,4-Dichloro-2-butene	ND		2.0		ug/L			05/09/17 00:47	2
Trichloroethene	ND		2.0		ug/L			05/09/17 00:47	2
Trichlorofluoromethane	ND		2.0		ug/L			05/09/17 00:47	2
Vinyl acetate	ND	*	10		ug/L			05/09/17 00:47	2
Vinyl chloride	ND		2.0		ug/L			05/09/17 00:47	2
Xylenes, Total	ND		4.0		ug/L			05/09/17 00:47	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/09/17 00:47*	*2*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/09/17 00:47*	*2*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/09/17 00:47*	*2*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 23:00	1
Barium	**0.063**		0.0020		mg/L		05/01/17 10:10	05/08/17 23:00	1
Boron	**0.28**		0.020		mg/L		05/01/17 10:10	05/08/17 23:00	1
Chromium	**0.012**		0.0040		mg/L		05/01/17 10:10	05/08/17 23:00	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 23:00	1
Manganese	**0.035**		0.0030		mg/L		05/01/17 10:10	05/08/17 23:00	1
Potassium	**113**		0.50		mg/L		05/01/17 10:10	05/08/17 23:00	1
Sodium	**73.7**		1.0		mg/L		05/01/17 10:10	05/08/17 23:00	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 23:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.6**		1.0		mg/L			05/11/17 20:21	5
Chloride	**160**		2.5		mg/L			05/11/17 20:21	5
Sulfate	**203**		10.0		mg/L			05/11/17 20:21	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/03/17 18:04	1
Total Dissolved Solids	**781**		10.0		mg/L			05/04/17 03:14	1
Chromium, hexavalent	**0.018**		0.010		mg/L			04/28/17 06:06	1
Total Organic Carbon	**7.0**		1.0		mg/L			05/03/17 03:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**164**				millivolts			04/27/17 14:45	1
pH, Field	**7.56**				SU			04/27/17 14:45	1
Specific Conductance	**1255**				umhos/cm			04/27/17 14:45	1
Temperature, Field (C)	**10.3**				Degrees C			04/27/17 14:45	1
Turbidity, Field	**1.03**				NTU			04/27/17 14:45	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: SW-1
Date Collected: 04/27/17 14:10
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1-Dichloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,1-Dichloroethene	ND		1.0		ug/L			05/09/17 01:14	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/09/17 01:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/09/17 01:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/09/17 01:14	1
1,2-Dibromoethane	ND		1.0		ug/L			05/09/17 01:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:14	1
1,2-Dichloroethane	ND		1.0		ug/L			05/09/17 01:14	1
1,2-Dichloropropane	ND		1.0		ug/L			05/09/17 01:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:14	1
2-Butanone (MEK)	ND		10		ug/L			05/09/17 01:14	1
2-Hexanone	ND		5.0		ug/L			05/09/17 01:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/09/17 01:14	1
Acetone	ND		10		ug/L			05/09/17 01:14	1
Acetonitrile	ND		15		ug/L			05/09/17 01:14	1
Benzene	ND		1.0		ug/L			05/09/17 01:14	1
Bromochloromethane	ND		1.0		ug/L			05/09/17 01:14	1
Bromodichloromethane	ND		1.0		ug/L			05/09/17 01:14	1
Bromoform	ND		1.0		ug/L			05/09/17 01:14	1
Bromomethane	ND		1.0		ug/L			05/09/17 01:14	1
Carbon disulfide	ND		1.0		ug/L			05/09/17 01:14	1
Carbon tetrachloride	ND		1.0		ug/L			05/09/17 01:14	1
Chlorobenzene	ND		1.0		ug/L			05/09/17 01:14	1
Chloroethane	ND		1.0		ug/L			05/09/17 01:14	1
Chloroform	ND		1.0		ug/L			05/09/17 01:14	1
Chloromethane	ND		1.0		ug/L			05/09/17 01:14	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 01:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 01:14	1
Cyclohexane	ND		1.0		ug/L			05/09/17 01:14	1
Dibromochloromethane	ND		1.0		ug/L			05/09/17 01:14	1
Dibromomethane	ND		1.0		ug/L			05/09/17 01:14	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			05/09/17 01:14	1
Ethylbenzene	ND		1.0		ug/L			05/09/17 01:14	1
Iodomethane	ND		1.0		ug/L			05/09/17 01:14	1
Isopropylbenzene	ND		1.0		ug/L			05/09/17 01:14	1
m,p-Xylene	ND		2.0		ug/L			05/09/17 01:14	1
Methyl acetate	ND		2.5		ug/L			05/09/17 01:14	1
Methylcyclohexane	ND		1.0		ug/L			05/09/17 01:14	1
Methylene Chloride	ND		1.0		ug/L			05/09/17 01:14	1
o-Xylene	ND		1.0		ug/L			05/09/17 01:14	1
Styrene	ND		1.0		ug/L			05/09/17 01:14	1
Tetrachloroethene	ND		1.0		ug/L			05/09/17 01:14	1
Toluene	ND		1.0		ug/L			05/09/17 01:14	1

Client Sample ID: SW-1
Date Collected: 04/27/17 14:10
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 01:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 01:14	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/09/17 01:14	1
Trichloroethene	ND		1.0		ug/L			05/09/17 01:14	1
Trichlorofluoromethane	ND		1.0		ug/L			05/09/17 01:14	1
Vinyl acetate	ND	*	5.0		ug/L			05/09/17 01:14	1
Vinyl chloride	ND		1.0		ug/L			05/09/17 01:14	1
Xylenes, Total	ND		2.0		ug/L			05/09/17 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*05/09/17 01:14*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*05/09/17 01:14*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/09/17 01:14*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 23:04	1
Barium	**0.036**		0.0020		mg/L		05/01/17 10:10	05/08/17 23:04	1
Boron	**0.20**		0.020		mg/L		05/01/17 10:10	05/08/17 23:04	1
Chromium	**0.032**		0.0040		mg/L		05/01/17 10:10	05/08/17 23:04	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 23:04	1
Manganese	**0.023**		0.0030		mg/L		05/01/17 10:10	05/08/17 23:04	1
Potassium	**11.7**		0.50		mg/L		05/01/17 10:10	05/08/17 23:04	1
Sodium	**16.5**		1.0		mg/L		05/01/17 10:10	05/08/17 23:04	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 23:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/11/17 20:35	1
Chloride	**17.2**		0.50		mg/L			05/11/17 20:35	1
Sulfate	**59.6**		2.0		mg/L			05/11/17 20:35	1
Chemical Oxygen Demand	**27.1**		10.0		mg/L			05/03/17 18:04	1
Total Dissolved Solids	**390**		10.0		mg/L			05/04/17 03:14	1
Chromium, hexavalent	**0.026**		0.010		mg/L			04/28/17 06:06	1
Total Organic Carbon	**13.0**		1.0		mg/L			05/03/17 03:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**187**				millivolts			04/27/17 14:10	1
pH, Field	**7.69**				SU			04/27/17 14:10	1
Specific Conductance	**713**				umhos/cm			04/27/17 14:10	1
Temperature, Field (C)	**17.2**				Degrees C			04/27/17 14:10	1
Turbidity, Field	**3.01**				NTU			04/27/17 14:10	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: Trip Blank
Date Collected: 04/27/17 08:00
Date Received: 04/27/17 15:20

Lab Sample ID: 480-117066-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1-Dichloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,1-Dichloroethene	ND		1.0		ug/L			05/09/17 01:41	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/09/17 01:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/09/17 01:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/09/17 01:41	1
1,2-Dibromoethane	ND		1.0		ug/L			05/09/17 01:41	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:41	1
1,2-Dichloroethane	ND		1.0		ug/L			05/09/17 01:41	1
1,2-Dichloropropane	ND		1.0		ug/L			05/09/17 01:41	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:41	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/09/17 01:41	1
2-Butanone (MEK)	ND		10		ug/L			05/09/17 01:41	1
2-Hexanone	ND		5.0		ug/L			05/09/17 01:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/09/17 01:41	1
Acetone	ND		10		ug/L			05/09/17 01:41	1
Acetonitrile	ND		15		ug/L			05/09/17 01:41	1
Benzene	ND		1.0		ug/L			05/09/17 01:41	1
Bromochloromethane	ND		1.0		ug/L			05/09/17 01:41	1
Bromodichloromethane	ND		1.0		ug/L			05/09/17 01:41	1
Bromoform	ND		1.0		ug/L			05/09/17 01:41	1
Bromomethane	ND		1.0		ug/L			05/09/17 01:41	1
Carbon disulfide	ND		1.0		ug/L			05/09/17 01:41	1
Carbon tetrachloride	ND		1.0		ug/L			05/09/17 01:41	1
Chlorobenzene	ND		1.0		ug/L			05/09/17 01:41	1
Chloroethane	ND		1.0		ug/L			05/09/17 01:41	1
Chloroform	ND		1.0		ug/L			05/09/17 01:41	1
Chloromethane	ND		1.0		ug/L			05/09/17 01:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 01:41	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 01:41	1
Cyclohexane	ND		1.0		ug/L			05/09/17 01:41	1
Dibromochloromethane	ND		1.0		ug/L			05/09/17 01:41	1
Dibromomethane	ND		1.0		ug/L			05/09/17 01:41	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			05/09/17 01:41	1
Ethylbenzene	ND		1.0		ug/L			05/09/17 01:41	1
Iodomethane	ND		1.0		ug/L			05/09/17 01:41	1
Isopropylbenzene	ND		1.0		ug/L			05/09/17 01:41	1
m,p-Xylene	ND		2.0		ug/L			05/09/17 01:41	1
Methyl acetate	ND		2.5		ug/L			05/09/17 01:41	1
Methylcyclohexane	ND		1.0		ug/L			05/09/17 01:41	1
Methylene Chloride	ND		1.0		ug/L			05/09/17 01:41	1
o-Xylene	ND		1.0		ug/L			05/09/17 01:41	1
Styrene	ND		1.0		ug/L			05/09/17 01:41	1
Tetrachloroethene	ND		1.0		ug/L			05/09/17 01:41	1
Toluene	ND		1.0		ug/L			05/09/17 01:41	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-117066-6

Date Collected: 04/27/17 08:00

Matrix: Water

Date Received: 04/27/17 15:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 01:41	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 01:41	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/09/17 01:41	1
Trichloroethene	ND		1.0		ug/L			05/09/17 01:41	1
Trichlorofluoromethane	ND		1.0		ug/L			05/09/17 01:41	1
Vinyl acetate	ND	*	5.0		ug/L			05/09/17 01:41	1
Vinyl chloride	ND		1.0		ug/L			05/09/17 01:41	1
Xylenes, Total	ND		2.0		ug/L			05/09/17 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*05/09/17 01:41*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/09/17 01:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/09/17 01:41*	*1*

Client Sample ID: BR-1

Lab Sample ID: 480-117152-1

Date Collected: 04/28/17 12:35

Matrix: Water

Date Received: 04/28/17 15:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1-Dichloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,1-Dichloroethene	ND		1.0		ug/L			05/09/17 23:43	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/09/17 23:43	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/09/17 23:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/09/17 23:43	1
1,2-Dibromoethane	ND		1.0		ug/L			05/09/17 23:43	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:43	1
1,2-Dichloroethane	ND		1.0		ug/L			05/09/17 23:43	1
1,2-Dichloropropane	ND		1.0		ug/L			05/09/17 23:43	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:43	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:43	1
2-Butanone (MEK)	ND		10		ug/L			05/09/17 23:43	1
2-Hexanone	ND		5.0		ug/L			05/09/17 23:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/09/17 23:43	1
Acetone	ND		10		ug/L			05/09/17 23:43	1
Acetonitrile	ND		15		ug/L			05/09/17 23:43	1
Benzene	ND		1.0		ug/L			05/09/17 23:43	1
Bromochloromethane	ND		1.0		ug/L			05/09/17 23:43	1
Bromodichloromethane	ND		1.0		ug/L			05/09/17 23:43	1
Bromoform	ND		1.0		ug/L			05/09/17 23:43	1
Bromomethane	ND		1.0		ug/L			05/09/17 23:43	1
Carbon disulfide	ND		1.0		ug/L			05/09/17 23:43	1
Carbon tetrachloride	ND		1.0		ug/L			05/09/17 23:43	1
Chlorobenzene	ND		1.0		ug/L			05/09/17 23:43	1
Chloroethane	ND		1.0		ug/L			05/09/17 23:43	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: BR-1
Date Collected: 04/28/17 12:35
Date Received: 04/28/17 15:20

Lab Sample ID: 480-117152-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0		ug/L			05/09/17 23:43	1
Chloromethane	ND		1.0		ug/L			05/09/17 23:43	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 23:43	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 23:43	1
Cyclohexane	ND		1.0		ug/L			05/09/17 23:43	1
Dibromochloromethane	ND		1.0		ug/L			05/09/17 23:43	1
Dibromomethane	ND		1.0		ug/L			05/09/17 23:43	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/09/17 23:43	1
Ethylbenzene	ND		1.0		ug/L			05/09/17 23:43	1
Iodomethane	ND		1.0		ug/L			05/09/17 23:43	1
Isopropylbenzene	ND		1.0		ug/L			05/09/17 23:43	1
m,p-Xylene	ND		2.0		ug/L			05/09/17 23:43	1
Methyl acetate	ND		2.5		ug/L			05/09/17 23:43	1
Methylcyclohexane	ND		1.0		ug/L			05/09/17 23:43	1
Methylene Chloride	**1.2**	**B**	1.0		ug/L			05/09/17 23:43	1
o-Xylene	ND		1.0		ug/L			05/09/17 23:43	1
Styrene	ND		1.0		ug/L			05/09/17 23:43	1
Tetrachloroethene	ND		1.0		ug/L			05/09/17 23:43	1
Toluene	ND		1.0		ug/L			05/09/17 23:43	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 23:43	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 23:43	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/09/17 23:43	1
Trichloroethene	ND		1.0		ug/L			05/09/17 23:43	1
Trichlorofluoromethane	ND		1.0		ug/L			05/09/17 23:43	1
Vinyl acetate	ND	*	5.0		ug/L			05/09/17 23:43	1
Vinyl chloride	ND		1.0		ug/L			05/09/17 23:43	1
Xylenes, Total	ND		2.0		ug/L			05/09/17 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*05/09/17 23:43*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/09/17 23:43*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/09/17 23:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/02/17 16:21	1
Barium	**0.11**		0.0020		mg/L		05/01/17 10:10	05/02/17 16:21	1
Boron	**0.12**		0.020		mg/L		05/01/17 10:10	05/02/17 16:21	1
Chromium	ND		0.0040		mg/L		05/01/17 10:10	05/02/17 16:21	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/02/17 16:21	1
Manganese	**0.28**		0.0030		mg/L		05/01/17 10:10	05/02/17 16:21	1
Potassium	**9.0**		0.50		mg/L		05/01/17 10:10	05/02/17 16:21	1
Sodium	**38.3**		1.0		mg/L		05/01/17 10:10	05/02/17 16:21	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/02/17 16:21	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/01/17 07:00	05/01/17 12:17	1

Client Sample ID: BR-1

Lab Sample ID: 480-117152-1

Date Collected: 04/28/17 12:35

Matrix: Water

Date Received: 04/28/17 15:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.21**		0.20		mg/L			05/11/17 13:25	1
Chloride	**55.8**		0.50		mg/L			05/11/17 13:25	1
Sulfate	**60.9**		2.0		mg/L			05/11/17 13:25	1
Chemical Oxygen Demand	ND		10.0		mg/L			05/01/17 23:31	1
Total Dissolved Solids	**309**		10.0		mg/L			05/04/17 20:07	1
Chromium, hexavalent	ND		0.010		mg/L			04/29/17 11:05	1
Total Organic Carbon	**2.9**		1.0		mg/L			05/03/17 05:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**159**				millivolts			04/28/17 12:35	1
pH, Field	**7.77**				SU			04/28/17 12:35	1
Specific Conductance	**482**				umhos/cm			04/28/17 12:35	1
Temperature, Field (C)	**11.6**				Degrees C			04/28/17 12:35	1
Turbidity, Field	**1.95**				NTU			04/28/17 12:35	1

Client Sample ID: MW-12

Lab Sample ID: 480-117152-2

Date Collected: 04/28/17 13:25

Matrix: Water

Date Received: 04/28/17 15:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1-Dichloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,1-Dichloroethene	ND		1.0		ug/L			05/10/17 00:10	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/10/17 00:10	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/10/17 00:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/10/17 00:10	1
1,2-Dibromoethane	ND		1.0		ug/L			05/10/17 00:10	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:10	1
1,2-Dichloroethane	ND		1.0		ug/L			05/10/17 00:10	1
1,2-Dichloropropane	ND		1.0		ug/L			05/10/17 00:10	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:10	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:10	1
2-Butanone (MEK)	ND		10		ug/L			05/10/17 00:10	1
2-Hexanone	ND		5.0		ug/L			05/10/17 00:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/10/17 00:10	1
Acetone	ND		10		ug/L			05/10/17 00:10	1
Acetonitrile	ND		15		ug/L			05/10/17 00:10	1
Benzene	ND		1.0		ug/L			05/10/17 00:10	1
Bromochloromethane	ND		1.0		ug/L			05/10/17 00:10	1
Bromodichloromethane	ND		1.0		ug/L			05/10/17 00:10	1
Bromoform	ND		1.0		ug/L			05/10/17 00:10	1
Bromomethane	ND		1.0		ug/L			05/10/17 00:10	1
Carbon disulfide	ND		1.0		ug/L			05/10/17 00:10	1
Carbon tetrachloride	ND		1.0		ug/L			05/10/17 00:10	1

Client Sample ID: MW-12
Date Collected: 04/28/17 13:25
Date Received: 04/28/17 15:20

Lab Sample ID: 480-117152-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0		ug/L			05/10/17 00:10	1
Chloroethane	ND		1.0		ug/L			05/10/17 00:10	1
Chloroform	ND		1.0		ug/L			05/10/17 00:10	1
Chloromethane	ND		1.0		ug/L			05/10/17 00:10	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/10/17 00:10	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/10/17 00:10	1
Cyclohexane	ND		1.0		ug/L			05/10/17 00:10	1
Dibromochloromethane	ND		1.0		ug/L			05/10/17 00:10	1
Dibromomethane	ND		1.0		ug/L			05/10/17 00:10	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/10/17 00:10	1
Ethylbenzene	ND		1.0		ug/L			05/10/17 00:10	1
Iodomethane	ND		1.0		ug/L			05/10/17 00:10	1
Isopropylbenzene	ND		1.0		ug/L			05/10/17 00:10	1
m,p-Xylene	ND		2.0		ug/L			05/10/17 00:10	1
Methyl acetate	ND		2.5		ug/L			05/10/17 00:10	1
Methylcyclohexane	ND		1.0		ug/L			05/10/17 00:10	1
Methylene Chloride	ND		1.0		ug/L			05/10/17 00:10	1
o-Xylene	ND		1.0		ug/L			05/10/17 00:10	1
Styrene	ND		1.0		ug/L			05/10/17 00:10	1
Tetrachloroethene	ND		1.0		ug/L			05/10/17 00:10	1
Toluene	ND		1.0		ug/L			05/10/17 00:10	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/10/17 00:10	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/10/17 00:10	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/10/17 00:10	1
Trichloroethene	ND		1.0		ug/L			05/10/17 00:10	1
Trichlorofluoromethane	ND		1.0		ug/L			05/10/17 00:10	1
Vinyl acetate	ND	*	5.0		ug/L			05/10/17 00:10	1
Vinyl chloride	ND		1.0		ug/L			05/10/17 00:10	1
Xylenes, Total	ND		2.0		ug/L			05/10/17 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/10/17 00:10*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*05/10/17 00:10*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/10/17 00:10*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/02/17 16:25	1
Barium	**0.045**		0.0020		mg/L		05/01/17 10:10	05/02/17 16:25	1
Boron	**0.13**		0.020		mg/L		05/01/17 10:10	05/02/17 16:25	1
Chromium	**0.021**		0.0040		mg/L		05/01/17 10:10	05/02/17 16:25	1
Lead	**0.040**		0.010		mg/L		05/01/17 10:10	05/02/17 16:25	1
Manganese	**0.030**		0.0030		mg/L		05/01/17 10:10	05/02/17 16:25	1
Potassium	**2.9**		0.50		mg/L		05/01/17 10:10	05/02/17 16:25	1
Sodium	**64.2**		1.0		mg/L		05/01/17 10:10	05/02/17 16:25	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/02/17 16:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/01/17 07:00	05/01/17 12:19	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-12

Lab Sample ID: 480-117152-2

Date Collected: 04/28/17 13:25

Matrix: Water

Date Received: 04/28/17 15:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/11/17 13:39	5
Chloride	**110**		2.5		mg/L			05/11/17 13:39	5
Sulfate	**103**		10.0		mg/L			05/11/17 13:39	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/01/17 23:31	1
Total Dissolved Solids	**723**		10.0		mg/L			05/04/17 20:07	1
Chromium, hexavalent	**0.020**		0.010		mg/L			04/29/17 11:05	1
Total Organic Carbon	**3.6**		1.0		mg/L			05/03/17 05:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**168**				millivolts			04/28/17 13:25	1
pH, Field	**7.57**				SU			04/28/17 13:25	1
Specific Conductance	**1051**				umhos/cm			04/28/17 13:25	1
Temperature, Field (C)	**11.7**				Degrees C			04/28/17 13:25	1
Turbidity, Field	**2.35**				NTU			04/28/17 13:25	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-117152-3

Date Collected: 04/28/17 08:00

Matrix: Water

Date Received: 04/28/17 15:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1-Dichloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,1-Dichloroethene	ND		1.0		ug/L			05/10/17 00:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/10/17 00:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/10/17 00:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/10/17 00:37	1
1,2-Dibromoethane	ND		1.0		ug/L			05/10/17 00:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:37	1
1,2-Dichloroethane	ND		1.0		ug/L			05/10/17 00:37	1
1,2-Dichloropropane	ND		1.0		ug/L			05/10/17 00:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/10/17 00:37	1
2-Butanone (MEK)	ND		10		ug/L			05/10/17 00:37	1
2-Hexanone	ND		5.0		ug/L			05/10/17 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/10/17 00:37	1
Acetone	ND		10		ug/L			05/10/17 00:37	1
Acetonitrile	ND		15		ug/L			05/10/17 00:37	1
Benzene	ND		1.0		ug/L			05/10/17 00:37	1
Bromochloromethane	ND		1.0		ug/L			05/10/17 00:37	1
Bromodichloromethane	ND		1.0		ug/L			05/10/17 00:37	1
Bromoform	ND		1.0		ug/L			05/10/17 00:37	1
Bromomethane	ND		1.0		ug/L			05/10/17 00:37	1
Carbon disulfide	ND		1.0		ug/L			05/10/17 00:37	1
Carbon tetrachloride	ND		1.0		ug/L			05/10/17 00:37	1

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: Trip Blank
Date Collected: 04/28/17 08:00
Date Received: 04/28/17 15:20

Lab Sample ID: 480-117152-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0		ug/L			05/10/17 00:37	1
Chloroethane	ND		1.0		ug/L			05/10/17 00:37	1
Chloroform	ND		1.0		ug/L			05/10/17 00:37	1
Chloromethane	ND		1.0		ug/L			05/10/17 00:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/10/17 00:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/10/17 00:37	1
Cyclohexane	ND		1.0		ug/L			05/10/17 00:37	1
Dibromochloromethane	ND		1.0		ug/L			05/10/17 00:37	1
Dibromomethane	ND		1.0		ug/L			05/10/17 00:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/10/17 00:37	1
Ethylbenzene	ND		1.0		ug/L			05/10/17 00:37	1
Iodomethane	ND		1.0		ug/L			05/10/17 00:37	1
Isopropylbenzene	ND		1.0		ug/L			05/10/17 00:37	1
m,p-Xylene	ND		2.0		ug/L			05/10/17 00:37	1
Methyl acetate	ND		2.5		ug/L			05/10/17 00:37	1
Methylcyclohexane	ND		1.0		ug/L			05/10/17 00:37	1
Methylene Chloride	**1.1**	**B**	1.0		ug/L			05/10/17 00:37	1
o-Xylene	ND		1.0		ug/L			05/10/17 00:37	1
Styrene	ND		1.0		ug/L			05/10/17 00:37	1
Tetrachloroethene	ND		1.0		ug/L			05/10/17 00:37	1
Toluene	ND		1.0		ug/L			05/10/17 00:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/10/17 00:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/10/17 00:37	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/10/17 00:37	1
Trichloroethene	ND		1.0		ug/L			05/10/17 00:37	1
Trichlorofluoromethane	ND		1.0		ug/L			05/10/17 00:37	1
Vinyl acetate	ND	*	5.0		ug/L			05/10/17 00:37	1
Vinyl chloride	ND		1.0		ug/L			05/10/17 00:37	1
Xylenes, Total	ND		2.0		ug/L			05/10/17 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/10/17 00:37*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/10/17 00:37*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/10/17 00:37*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
480-117066-1	MW-3R	98	101	101
480-117066-2	MW-14N	100	99	101
480-117066-3	MW-5R	100	100	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Leachate — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
480-117066-4	Leachate	102	97	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
480-117066-5	SW-1	101	98	99
480-117066-6	Trip Blank	100	100	101
480-117152-1	BR-1	98	96	100
480-117152-2	MW-12	99	102	100
480-117152-3	Trip Blank	99	99	101
LCS 480-356264/4	Lab Control Sample	99	99	99
LCS 480-356486/4	Lab Control Sample	94	100	100
MB 480-356264/6	Method Blank	101	101	100
MB 480-356486/6	Method Blank	99	99	102

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-356264/6
Matrix: Water
Analysis Batch: 356264

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1-Dichloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,1-Dichloroethene	ND		1.0		ug/L			05/08/17 22:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/08/17 22:53	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/08/17 22:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/08/17 22:53	1
1,2-Dibromoethane	ND		1.0		ug/L			05/08/17 22:53	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/08/17 22:53	1
1,2-Dichloroethane	ND		1.0		ug/L			05/08/17 22:53	1
1,2-Dichloropropane	ND		1.0		ug/L			05/08/17 22:53	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/08/17 22:53	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/08/17 22:53	1
2-Butanone (MEK)	ND		10		ug/L			05/08/17 22:53	1
2-Hexanone	ND		5.0		ug/L			05/08/17 22:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/08/17 22:53	1
Acetone	ND		10		ug/L			05/08/17 22:53	1
Acetonitrile	ND		15		ug/L			05/08/17 22:53	1
Benzene	ND		1.0		ug/L			05/08/17 22:53	1
Bromochloromethane	ND		1.0		ug/L			05/08/17 22:53	1
Bromodichloromethane	ND		1.0		ug/L			05/08/17 22:53	1
Bromoform	ND		1.0		ug/L			05/08/17 22:53	1
Bromomethane	ND		1.0		ug/L			05/08/17 22:53	1
Carbon disulfide	ND		1.0		ug/L			05/08/17 22:53	1
Carbon tetrachloride	ND		1.0		ug/L			05/08/17 22:53	1
Chlorobenzene	ND		1.0		ug/L			05/08/17 22:53	1
Chloroethane	ND		1.0		ug/L			05/08/17 22:53	1
Chloroform	ND		1.0		ug/L			05/08/17 22:53	1
Chloromethane	ND		1.0		ug/L			05/08/17 22:53	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/08/17 22:53	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 22:53	1
Cyclohexane	ND		1.0		ug/L			05/08/17 22:53	1
Dibromochloromethane	ND		1.0		ug/L			05/08/17 22:53	1
Dibromomethane	ND		1.0		ug/L			05/08/17 22:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/08/17 22:53	1
Ethylbenzene	ND		1.0		ug/L			05/08/17 22:53	1
Iodomethane	ND		1.0		ug/L			05/08/17 22:53	1
Isopropylbenzene	ND		1.0		ug/L			05/08/17 22:53	1
m,p-Xylene	ND		2.0		ug/L			05/08/17 22:53	1
Methyl acetate	ND		2.5		ug/L			05/08/17 22:53	1
Methylcyclohexane	ND		1.0		ug/L			05/08/17 22:53	1
Methylene Chloride	ND		1.0		ug/L			05/08/17 22:53	1
o-Xylene	ND		1.0		ug/L			05/08/17 22:53	1
Styrene	ND		1.0		ug/L			05/08/17 22:53	1
Tetrachloroethene	ND		1.0		ug/L			05/08/17 22:53	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-356264/6
Matrix: Water
Analysis Batch: 356264

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0		ug/L			05/08/17 22:53	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/08/17 22:53	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/08/17 22:53	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/08/17 22:53	1
Trichloroethene	ND		1.0		ug/L			05/08/17 22:53	1
Trichlorofluoromethane	ND		1.0		ug/L			05/08/17 22:53	1
Vinyl acetate	ND		5.0		ug/L			05/08/17 22:53	1
Vinyl chloride	ND		1.0		ug/L			05/08/17 22:53	1
Xylenes, Total	ND		2.0		ug/L			05/08/17 22:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*05/08/17 22:53*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*05/08/17 22:53*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/08/17 22:53*	*1*

Lab Sample ID: LCS 480-356264/4
Matrix: Water
Analysis Batch: 356264

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	80 - 120
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.6		ug/L		110	61 - 148
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	24.6		ug/L		98	77 - 120
1,1-Dichloroethene	25.0	24.0		ug/L		96	66 - 127
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	68 - 122
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		108	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		103	56 - 134
1,2-Dibromoethane	25.0	25.5		ug/L		102	77 - 120
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	25.9		ug/L		104	76 - 120
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 120
1,4-Dichlorobenzene	25.0	24.9		ug/L		100	80 - 120
2-Butanone (MEK)	125	121		ug/L		97	57 - 140
2-Hexanone	125	117		ug/L		94	65 - 127
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	113		ug/L		90	56 - 142
Acetonitrile	250	247		ug/L		99	65 - 129
Benzene	25.0	25.3		ug/L		101	71 - 124
Bromochloromethane	25.0	24.5		ug/L		98	72 - 130
Bromodichloromethane	25.0	25.5		ug/L		102	80 - 122
Bromoform	25.0	26.1		ug/L		104	61 - 132
Bromomethane	25.0	29.8		ug/L		119	55 - 144
Carbon disulfide	25.0	23.9		ug/L		95	59 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-356264/4
Matrix: Water
Analysis Batch: 356264

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	25.0	27.8		ug/L		111	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	80 - 120
Chloroethane	25.0	27.3		ug/L		109	69 - 136
Chloroform	25.0	24.8		ug/L		99	73 - 127
Chloromethane	25.0	27.1		ug/L		108	68 - 124
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	26.8		ug/L		107	74 - 124
Cyclohexane	25.0	26.6		ug/L		106	59 - 135
Dibromochloromethane	25.0	26.5		ug/L		106	75 - 125
Dibromomethane	25.0	25.0		ug/L		100	76 - 127
Dichlorodifluoromethane	25.0	35.0	*	ug/L		140	59 - 135
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123
Iodomethane	25.0	27.1		ug/L		108	78 - 123
Isopropylbenzene	25.0	27.0		ug/L		108	77 - 122
m,p-Xylene	25.0	25.3		ug/L		101	76 - 122
Methyl acetate	125	118		ug/L		94	74 - 133
Methyl tert-butyl ether	25.0	23.8		ug/L		95	77 - 120
Methylcyclohexane	25.0	27.3		ug/L		109	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
o-Xylene	25.0	25.3		ug/L		101	76 - 122
Styrene	25.0	24.9		ug/L		99	80 - 120
Tetrachloroethene	25.0	27.6		ug/L		110	74 - 122
Toluene	25.0	26.3		ug/L		105	80 - 122
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	80 - 120
trans-1,4-Dichloro-2-butene	25.0	25.9		ug/L		104	41 - 131
Trichloroethene	25.0	25.7		ug/L		103	74 - 123
Trichlorofluoromethane	25.0	31.0		ug/L		124	62 - 150
Vinyl acetate	50.0	76.0	*	ug/L		152	50 - 144
Vinyl chloride	25.0	28.2		ug/L		113	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 480-356486/6
Matrix: Water
Analysis Batch: 356486

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1-Dichloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,1-Dichloroethene	ND		1.0		ug/L			05/09/17 23:08	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-356486/6
Matrix: Water
Analysis Batch: 356486

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			05/09/17 23:08	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/09/17 23:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/09/17 23:08	1
1,2-Dibromoethane	ND		1.0		ug/L			05/09/17 23:08	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:08	1
1,2-Dichloroethane	ND		1.0		ug/L			05/09/17 23:08	1
1,2-Dichloropropane	ND		1.0		ug/L			05/09/17 23:08	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:08	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/09/17 23:08	1
2-Butanone (MEK)	ND		10		ug/L			05/09/17 23:08	1
2-Hexanone	ND		5.0		ug/L			05/09/17 23:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/09/17 23:08	1
Acetone	ND		10		ug/L			05/09/17 23:08	1
Acetonitrile	ND		15		ug/L			05/09/17 23:08	1
Benzene	ND		1.0		ug/L			05/09/17 23:08	1
Bromochloromethane	ND		1.0		ug/L			05/09/17 23:08	1
Bromodichloromethane	ND		1.0		ug/L			05/09/17 23:08	1
Bromoform	ND		1.0		ug/L			05/09/17 23:08	1
Bromomethane	ND		1.0		ug/L			05/09/17 23:08	1
Carbon disulfide	ND		1.0		ug/L			05/09/17 23:08	1
Carbon tetrachloride	ND		1.0		ug/L			05/09/17 23:08	1
Chlorobenzene	ND		1.0		ug/L			05/09/17 23:08	1
Chloroethane	ND		1.0		ug/L			05/09/17 23:08	1
Chloroform	ND		1.0		ug/L			05/09/17 23:08	1
Chloromethane	ND		1.0		ug/L			05/09/17 23:08	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 23:08	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 23:08	1
Cyclohexane	ND		1.0		ug/L			05/09/17 23:08	1
Dibromochloromethane	ND		1.0		ug/L			05/09/17 23:08	1
Dibromomethane	ND		1.0		ug/L			05/09/17 23:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/09/17 23:08	1
Ethylbenzene	ND		1.0		ug/L			05/09/17 23:08	1
Iodomethane	ND		1.0		ug/L			05/09/17 23:08	1
Isopropylbenzene	ND		1.0		ug/L			05/09/17 23:08	1
m,p-Xylene	ND		2.0		ug/L			05/09/17 23:08	1
Methyl acetate	ND		2.5		ug/L			05/09/17 23:08	1
Methylcyclohexane	ND		1.0		ug/L			05/09/17 23:08	1
Methylene Chloride	1.01		1.0		ug/L			05/09/17 23:08	1
o-Xylene	ND		1.0		ug/L			05/09/17 23:08	1
Styrene	ND		1.0		ug/L			05/09/17 23:08	1
Tetrachloroethene	ND		1.0		ug/L			05/09/17 23:08	1
Toluene	ND		1.0		ug/L			05/09/17 23:08	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/09/17 23:08	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/09/17 23:08	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/09/17 23:08	1
Trichloroethene	ND		1.0		ug/L			05/09/17 23:08	1
Trichlorofluoromethane	ND		1.0		ug/L			05/09/17 23:08	1
Vinyl acetate	ND		5.0		ug/L			05/09/17 23:08	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-356486/6
Matrix: Water
Analysis Batch: 356486

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0		ug/L			05/09/17 23:08	1
Xylenes, Total	ND		2.0		ug/L			05/09/17 23:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/09/17 23:08*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/09/17 23:08*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/09/17 23:08*	*1*

Lab Sample ID: LCS 480-356486/4
Matrix: Water
Analysis Batch: 356486

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		107	80 - 120
1,1,1-Trichloroethane	25.0	24.6		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		100	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.0		ug/L		108	61 - 148
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	76 - 122
1,1-Dichloroethane	25.0	24.3		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	25.2		ug/L		101	66 - 127
1,2,3-Trichloropropane	25.0	26.7		ug/L		107	68 - 122
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	26.0		ug/L		104	56 - 134
1,2-Dibromoethane	25.0	25.7		ug/L		103	77 - 120
1,2-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 124
1,2-Dichloroethane	25.0	23.6		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	25.4		ug/L		102	76 - 120
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	77 - 120
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 120
2-Butanone (MEK)	125	112		ug/L		90	57 - 140
2-Hexanone	125	132		ug/L		106	65 - 127
4-Methyl-2-pentanone (MIBK)	125	134		ug/L		107	71 - 125
Acetone	125	112		ug/L		90	56 - 142
Acetonitrile	250	221		ug/L		88	65 - 129
Benzene	25.0	24.4		ug/L		98	71 - 124
Bromochloromethane	25.0	24.5		ug/L		98	72 - 130
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	26.1		ug/L		104	61 - 132
Bromomethane	25.0	22.2		ug/L		89	55 - 144
Carbon disulfide	25.0	24.4		ug/L		98	59 - 134
Carbon tetrachloride	25.0	25.6		ug/L		102	72 - 134
Chlorobenzene	25.0	26.3		ug/L		105	80 - 120
Chloroethane	25.0	21.0		ug/L		84	69 - 136
Chloroform	25.0	23.9		ug/L		96	73 - 127
Chloromethane	25.0	24.6		ug/L		98	68 - 124
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-356486/4
Matrix: Water
Analysis Batch: 356486

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	26.8		ug/L		107	59 - 135
Dibromochloromethane	25.0	26.8		ug/L		107	75 - 125
Dibromomethane	25.0	23.5		ug/L		94	76 - 127
Dichlorodifluoromethane	25.0	28.0		ug/L		112	59 - 135
Ethylbenzene	25.0	26.7		ug/L		107	77 - 123
Iodomethane	25.0	23.5		ug/L		94	78 - 123
Isopropylbenzene	25.0	27.5		ug/L		110	77 - 122
m,p-Xylene	25.0	26.1		ug/L		105	76 - 122
Methyl acetate	125	124		ug/L		99	74 - 133
Methyl tert-butyl ether	25.0	24.0		ug/L		96	77 - 120
Methylcyclohexane	25.0	25.9		ug/L		104	68 - 134
Methylene Chloride	25.0	24.0		ug/L		96	75 - 124
o-Xylene	25.0	26.1		ug/L		105	76 - 122
Styrene	25.0	26.3		ug/L		105	80 - 120
Tetrachloroethene	25.0	27.3		ug/L		109	74 - 122
Toluene	25.0	26.7		ug/L		107	80 - 122
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	27.6		ug/L		110	80 - 120
trans-1,4-Dichloro-2-butene	25.0	23.3		ug/L		93	41 - 131
Trichloroethene	25.0	24.7		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	27.0		ug/L		108	62 - 150
Vinyl acetate	50.0	74.5	*	ug/L		149	50 - 144
Vinyl chloride	25.0	25.5		ug/L		102	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-354872/1-A
Matrix: Water
Analysis Batch: 355320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/02/17 14:52	1
Barium	ND		0.0020		mg/L		05/01/17 10:10	05/02/17 14:52	1
Boron	ND		0.020		mg/L		05/01/17 10:10	05/02/17 14:52	1
Chromium	ND		0.0040		mg/L		05/01/17 10:10	05/02/17 14:52	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/02/17 14:52	1
Manganese	ND		0.0030		mg/L		05/01/17 10:10	05/02/17 14:52	1
Potassium	ND		0.50		mg/L		05/01/17 10:10	05/02/17 14:52	1
Sodium	ND		1.0		mg/L		05/01/17 10:10	05/02/17 14:52	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/02/17 14:52	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-354872/2-A
Matrix: Water
Analysis Batch: 355320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.200		mg/L		100	80 - 120
Barium	0.200	0.198		mg/L		99	80 - 120
Boron	0.200	0.199		mg/L		100	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Lead	0.200	0.204		mg/L		102	80 - 120
Manganese	0.200	0.210		mg/L		105	80 - 120
Potassium	10.0	10.12		mg/L		101	80 - 120
Sodium	10.0	10.04		mg/L		100	80 - 120
Selenium	0.200	0.193		mg/L		96	80 - 120

Lab Sample ID: LCSD 480-354872/3-A
Matrix: Water
Analysis Batch: 355320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 354872

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.200	0.196		mg/L		98	80 - 120	2	20
Barium	0.200	0.198		mg/L		99	80 - 120	0	20
Boron	0.200	0.200		mg/L		100	80 - 120	0	20
Chromium	0.200	0.206		mg/L		103	80 - 120	1	20
Lead	0.200	0.209		mg/L		105	80 - 120	2	20
Manganese	0.200	0.209		mg/L		105	80 - 120	0	20
Potassium	10.0	10.21		mg/L		102	80 - 120	1	20
Sodium	10.0	10.03		mg/L		100	80 - 120	0	20
Selenium	0.200	0.198		mg/L		99	80 - 120	3	20

Lab Sample ID: MB 480-354879/1-A
Matrix: Water
Analysis Batch: 356355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/01/17 10:10	05/08/17 22:14	1
Barium	ND		0.0020		mg/L		05/01/17 10:10	05/08/17 22:14	1
Boron	ND	^	0.020		mg/L		05/01/17 10:10	05/08/17 22:14	1
Chromium	ND		0.0040		mg/L		05/01/17 10:10	05/08/17 22:14	1
Lead	ND		0.010		mg/L		05/01/17 10:10	05/08/17 22:14	1
Manganese	ND		0.0030		mg/L		05/01/17 10:10	05/08/17 22:14	1
Potassium	ND		0.50		mg/L		05/01/17 10:10	05/08/17 22:14	1
Sodium	ND		1.0		mg/L		05/01/17 10:10	05/08/17 22:14	1
Selenium	ND		0.025		mg/L		05/01/17 10:10	05/08/17 22:14	1

Lab Sample ID: LCS 480-354879/2-A
Matrix: Water
Analysis Batch: 356355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.201		mg/L		100	80 - 120
Barium	0.200	0.201		mg/L		101	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Lead	0.200	0.202		mg/L		101	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-354879/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356355 — **Prep Batch: 354879**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.200	0.206		mg/L		103	80 - 120
Potassium	10.0	9.61		mg/L		96	80 - 120
Sodium	10.0	9.61		mg/L		96	80 - 120
Selenium	0.200	0.202		mg/L		101	80 - 120

Lab Sample ID: LCS 480-354879/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356569 — **Prep Batch: 354879**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.200	0.199		mg/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-354521/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354634 — **Prep Batch: 354521**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/28/17 08:20	04/28/17 11:00	1

Lab Sample ID: LCS 480-354521/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354634 — **Prep Batch: 354521**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00695		mg/L		104	80 - 120

Lab Sample ID: 480-117066-1 MS — **Client Sample ID: MW-3R**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 354634 — **Prep Batch: 354521**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00700		mg/L		105	80 - 120

Lab Sample ID: 480-117066-1 MSD — **Client Sample ID: MW-3R**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 354634 — **Prep Batch: 354521**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00693		mg/L		104	80 - 120	1	20

Lab Sample ID: MB 480-354749/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354972 — **Prep Batch: 354749**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/01/17 07:00	05/01/17 11:52	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-354749/2-A
Matrix: Water
Analysis Batch: 354972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00663		mg/L		99	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-356816/28
Matrix: Water
Analysis Batch: 356816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/11/17 19:08	1
Chloride	ND		0.50		mg/L			05/11/17 19:08	1
Sulfate	ND		2.0		mg/L			05/11/17 19:08	1

Lab Sample ID: MB 480-356816/4
Matrix: Water
Analysis Batch: 356816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/11/17 13:10	1
Chloride	ND		0.50		mg/L			05/11/17 13:10	1
Sulfate	ND		2.0		mg/L			05/11/17 13:10	1

Lab Sample ID: LCS 480-356816/27
Matrix: Water
Analysis Batch: 356816

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.08		mg/L		102	90 - 110
Chloride	50.0	49.06		mg/L		98	90 - 110
Sulfate	50.0	49.07		mg/L		98	90 - 110

Lab Sample ID: LCS 480-356816/3
Matrix: Water
Analysis Batch: 356816

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.11		mg/L		102	90 - 110
Chloride	50.0	49.21		mg/L		98	90 - 110
Sulfate	50.0	49.55		mg/L		99	90 - 110

Lab Sample ID: 480-117066-5 MS
Matrix: Water
Analysis Batch: 356816

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	5.98		mg/L		116	80 - 120
Chloride	17.2		50.0	71.61		mg/L		109	81 - 120
Sulfate	59.6		50.0	110.8	E	mg/L		102	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-117066-5 MSD — **Client Sample ID: SW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		5.00	5.94		mg/L		115	80 - 120	1	20
Chloride	17.2		50.0	70.84		mg/L		107	81 - 120	1	20
Sulfate	59.6		50.0	109.9	E	mg/L		101	80 - 120	1	20

Method: 410.4 - COD

Lab Sample ID: MB 480-355032/75 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355032

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/01/17 23:31	1

Lab Sample ID: LCS 480-355032/76 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	24.85		mg/L		99	90 - 110

Lab Sample ID: 480-117152-1 MS — **Client Sample ID: BR-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355032

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	54.18		mg/L		108	75 - 125

Lab Sample ID: MB 480-355513/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/03/17 18:04	1

Lab Sample ID: MB 480-355513/51 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/03/17 18:04	1

Lab Sample ID: LCS 480-355513/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.87		mg/L		95	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-355513/52
Matrix: Water
Analysis Batch: 355513

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			25.0	24.52		mg/L		98	90 - 110		

Lab Sample ID: 480-117066-4 MS
Matrix: Leachate
Analysis Batch: 355513

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		50.0	58.42		mg/L		117	75 - 125		

Lab Sample ID: 480-117066-5 MS
Matrix: Water
Analysis Batch: 355513

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	27.1		50.0	82.86		mg/L		111	75 - 125		

Lab Sample ID: 480-117066-1 DU
Matrix: Ground Water
Analysis Batch: 355513

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chemical Oxygen Demand	ND			ND		mg/L				NC	20

Lab Sample ID: MB 480-355764/27
Matrix: Water
Analysis Batch: 355764

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/04/17 19:42	1

Lab Sample ID: MB 480-355764/3
Matrix: Water
Analysis Batch: 355764

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/04/17 19:42	1

Lab Sample ID: LCS 480-355764/28
Matrix: Water
Analysis Batch: 355764

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			25.0	23.87		mg/L		95	90 - 110		

Lab Sample ID: LCS 480-355764/4
Matrix: Water
Analysis Batch: 355764

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			25.0	24.52		mg/L		98	90 - 110		

Lab Sample ID: 480-117066-3 MS
Matrix: Ground Water
Analysis Batch: 355764

Client Sample ID: MW-5R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		50.0	58.09		mg/L		116	75 - 125		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-355550/1
Matrix: Water
Analysis Batch: 355550

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/04/17 03:14	1

Lab Sample ID: LCS 480-355550/2
Matrix: Water
Analysis Batch: 355550

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			531	521.0		mg/L		98	85 - 115		

Lab Sample ID: MB 480-355757/1
Matrix: Water
Analysis Batch: 355757

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/04/17 20:07	1

Lab Sample ID: LCS 480-355757/2
Matrix: Water
Analysis Batch: 355757

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			531	501.0		mg/L		94	85 - 115		

Lab Sample ID: 480-117152-2 DU
Matrix: Water
Analysis Batch: 355757

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	723			720.0		mg/L				0.4	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 480-354505/3
Matrix: Water
Analysis Batch: 354505

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			04/28/17 06:06	1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-354505/4
Matrix: Water
Analysis Batch: 354505

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			0.0500	0.0523		mg/L		105	85 - 115		

Lab Sample ID: 480-117066-2 MS
Matrix: Ground Water
Analysis Batch: 354505

Client Sample ID: MW-14N
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	ND		0.0500	0.0497		mg/L		99	85 - 115		

Lab Sample ID: 480-117066-4 MS
Matrix: Leachate
Analysis Batch: 354505

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	0.018		0.0500	0.0686		mg/L		101	85 - 115		

Lab Sample ID: 480-117066-5 MS
Matrix: Water
Analysis Batch: 354505

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	0.026		0.0500	0.0781		mg/L		105	85 - 115		

Lab Sample ID: 480-117066-1 DU
Matrix: Ground Water
Analysis Batch: 354505

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L				NC	15

Lab Sample ID: 480-117066-4 DU
Matrix: Leachate
Analysis Batch: 354505

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	0.018			0.0188		mg/L				5	15

Lab Sample ID: 480-117066-5 DU
Matrix: Water
Analysis Batch: 354505

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	0.026			0.0257		mg/L				0	15

Lab Sample ID: MB 480-354791/3
Matrix: Water
Analysis Batch: 354791

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			04/29/17 11:05	1

Lab Sample ID: LCS 480-354791/4
Matrix: Water
Analysis Batch: 354791

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			0.0500	0.0500		mg/L		100	85 - 115		

Lab Sample ID: 480-117152-2 MS
Matrix: Water
Analysis Batch: 354791

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	0.020		0.0500	0.0670		mg/L		94	85 - 115		

Lab Sample ID: 480-117152-2 DU
Matrix: Water
Analysis Batch: 354791

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	0.020		0.0225		mg/L		11	15

Method: SM 5310D - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-355311/32
Matrix: Water
Analysis Batch: 355311

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/03/17 02:01	1

Lab Sample ID: LCS 480-355311/33
Matrix: Water
Analysis Batch: 355311

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			60.0	61.14		mg/L		102	90 - 110		

Lab Sample ID: 480-117066-5 MS
Matrix: Water
Analysis Batch: 355311

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	13.0		50.0	60.68		mg/L		95	54 - 131		

Lab Sample ID: 480-117066-5 MSD
Matrix: Water
Analysis Batch: 355311

Client Sample ID: SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	13.0		50.0	61.07		mg/L		96	54 - 131	1	20

GC/MS VOA

Analysis Batch: 356264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	8260C	
480-117066-2	MW-14N	Total/NA	Ground Water	8260C	
480-117066-3	MW-5R	Total/NA	Ground Water	8260C	
480-117066-4	Leachate	Total/NA	Leachate	8260C	
480-117066-5	SW-1	Total/NA	Water	8260C	
480-117066-6	Trip Blank	Total/NA	Water	8260C	
MB 480-356264/6	Method Blank	Total/NA	Water	8260C	
LCS 480-356264/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 356486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	8260C	
480-117152-2	MW-12	Total/NA	Water	8260C	
480-117152-3	Trip Blank	Total/NA	Water	8260C	
MB 480-356486/6	Method Blank	Total/NA	Water	8260C	
LCS 480-356486/4	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 354521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	7470A	
480-117066-2	MW-14N	Total/NA	Ground Water	7470A	
480-117066-3	MW-5R	Total/NA	Ground Water	7470A	
480-117066-4	Leachate	Total/NA	Leachate	7470A	
480-117066-5	SW-1	Total/NA	Water	7470A	
MB 480-354521/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-354521/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-117066-1 MS	MW-3R	Total/NA	Ground Water	7470A	
480-117066-1 MSD	MW-3R	Total/NA	Ground Water	7470A	

Analysis Batch: 354634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	7470A	354521
480-117066-2	MW-14N	Total/NA	Ground Water	7470A	354521
480-117066-3	MW-5R	Total/NA	Ground Water	7470A	354521
480-117066-4	Leachate	Total/NA	Leachate	7470A	354521
480-117066-5	SW-1	Total/NA	Water	7470A	354521
MB 480-354521/1-A	Method Blank	Total/NA	Water	7470A	354521
LCS 480-354521/2-A	Lab Control Sample	Total/NA	Water	7470A	354521
480-117066-1 MS	MW-3R	Total/NA	Ground Water	7470A	354521
480-117066-1 MSD	MW-3R	Total/NA	Ground Water	7470A	354521

Prep Batch: 354749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	7470A	
480-117152-2	MW-12	Total/NA	Water	7470A	
MB 480-354749/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-354749/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 354872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	3005A	
480-117152-2	MW-12	Total/NA	Water	3005A	
MB 480-354872/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-354872/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-354872/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Prep Batch: 354879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	3005A	
480-117066-2	MW-14N	Total/NA	Ground Water	3005A	
480-117066-3	MW-5R	Total/NA	Ground Water	3005A	
480-117066-4	Leachate	Total/NA	Leachate	3005A	
480-117066-5	SW-1	Total/NA	Water	3005A	
MB 480-354879/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-354879/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 354972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	7470A	354749
480-117152-2	MW-12	Total/NA	Water	7470A	354749
MB 480-354749/1-A	Method Blank	Total/NA	Water	7470A	354749
LCS 480-354749/2-A	Lab Control Sample	Total/NA	Water	7470A	354749

Analysis Batch: 355320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	6010C	354872
480-117152-2	MW-12	Total/NA	Water	6010C	354872
MB 480-354872/1-A	Method Blank	Total/NA	Water	6010C	354872
LCS 480-354872/2-A	Lab Control Sample	Total/NA	Water	6010C	354872
LCSD 480-354872/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	354872

Analysis Batch: 356355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	6010C	354879
480-117066-2	MW-14N	Total/NA	Ground Water	6010C	354879
480-117066-3	MW-5R	Total/NA	Ground Water	6010C	354879
480-117066-4	Leachate	Total/NA	Leachate	6010C	354879
480-117066-5	SW-1	Total/NA	Water	6010C	354879
MB 480-354879/1-A	Method Blank	Total/NA	Water	6010C	354879
LCS 480-354879/2-A	Lab Control Sample	Total/NA	Water	6010C	354879

Analysis Batch: 356569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	6010C	354879
480-117066-2	MW-14N	Total/NA	Ground Water	6010C	354879
LCS 480-354879/2-A	Lab Control Sample	Total/NA	Water	6010C	354879

General Chemistry

Analysis Batch: 354505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	SM 3500 CR B	
480-117066-2	MW-14N	Total/NA	Ground Water	SM 3500 CR B	
480-117066-3	MW-5R	Total/NA	Ground Water	SM 3500 CR B	
480-117066-4	Leachate	Total/NA	Leachate	SM 3500 CR B	
480-117066-5	SW-1	Total/NA	Water	SM 3500 CR B	
MB 480-354505/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-354505/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-117066-2 MS	MW-14N	Total/NA	Ground Water	SM 3500 CR B	
480-117066-4 MS	Leachate	Total/NA	Leachate	SM 3500 CR B	
480-117066-5 MS	SW-1	Total/NA	Water	SM 3500 CR B	
480-117066-1 DU	MW-3R	Total/NA	Ground Water	SM 3500 CR B	
480-117066-4 DU	Leachate	Total/NA	Leachate	SM 3500 CR B	
480-117066-5 DU	SW-1	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 354791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	SM 3500 CR B	
480-117152-2	MW-12	Total/NA	Water	SM 3500 CR B	
MB 480-354791/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-354791/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-117152-2 MS	MW-12	Total/NA	Water	SM 3500 CR B	
480-117152-2 DU	MW-12	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 355032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	410.4	
480-117152-2	MW-12	Total/NA	Water	410.4	
MB 480-355032/75	Method Blank	Total/NA	Water	410.4	
LCS 480-355032/76	Lab Control Sample	Total/NA	Water	410.4	
480-117152-1 MS	BR-1	Total/NA	Water	410.4	

Analysis Batch: 355311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	SM 5310D	
480-117066-2	MW-14N	Total/NA	Ground Water	SM 5310D	
480-117066-3	MW-5R	Total/NA	Ground Water	SM 5310D	
480-117066-4	Leachate	Total/NA	Leachate	SM 5310D	
480-117066-5	SW-1	Total/NA	Water	SM 5310D	
480-117152-1	BR-1	Total/NA	Water	SM 5310D	
480-117152-2	MW-12	Total/NA	Water	SM 5310D	
MB 480-355311/32	Method Blank	Total/NA	Water	SM 5310D	
LCS 480-355311/33	Lab Control Sample	Total/NA	Water	SM 5310D	
480-117066-5 MS	SW-1	Total/NA	Water	SM 5310D	
480-117066-5 MSD	SW-1	Total/NA	Water	SM 5310D	

Analysis Batch: 355513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	410.4	
480-117066-2	MW-14N	Total/NA	Ground Water	410.4	
480-117066-4	Leachate	Total/NA	Leachate	410.4	
480-117066-5	SW-1	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 355513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-355513/27	Method Blank	Total/NA	Water	410.4	
MB 480-355513/51	Method Blank	Total/NA	Water	410.4	
LCS 480-355513/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-355513/52	Lab Control Sample	Total/NA	Water	410.4	
480-117066-4 MS	Leachate	Total/NA	Leachate	410.4	
480-117066-5 MS	SW-1	Total/NA	Water	410.4	
480-117066-1 DU	MW-3R	Total/NA	Ground Water	410.4	

Analysis Batch: 355550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	SM 2540C	
480-117066-2	MW-14N	Total/NA	Ground Water	SM 2540C	
480-117066-3	MW-5R	Total/NA	Ground Water	SM 2540C	
480-117066-4	Leachate	Total/NA	Leachate	SM 2540C	
480-117066-5	SW-1	Total/NA	Water	SM 2540C	
MB 480-355550/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-355550/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 355757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117152-1	BR-1	Total/NA	Water	SM 2540C	
480-117152-2	MW-12	Total/NA	Water	SM 2540C	
MB 480-355757/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-355757/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-117152-2 DU	MW-12	Total/NA	Water	SM 2540C	

Analysis Batch: 355764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-3	MW-5R	Total/NA	Ground Water	410.4	
MB 480-355764/27	Method Blank	Total/NA	Water	410.4	
MB 480-355764/3	Method Blank	Total/NA	Water	410.4	
LCS 480-355764/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-355764/4	Lab Control Sample	Total/NA	Water	410.4	
480-117066-3 MS	MW-5R	Total/NA	Ground Water	410.4	

Analysis Batch: 356816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	300.0	
480-117066-2	MW-14N	Total/NA	Ground Water	300.0	
480-117066-3	MW-5R	Total/NA	Ground Water	300.0	
480-117066-4	Leachate	Total/NA	Leachate	300.0	
480-117066-5	SW-1	Total/NA	Water	300.0	
480-117152-1	BR-1	Total/NA	Water	300.0	
480-117152-2	MW-12	Total/NA	Water	300.0	
MB 480-356816/28	Method Blank	Total/NA	Water	300.0	
MB 480-356816/4	Method Blank	Total/NA	Water	300.0	
LCS 480-356816/27	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-356816/3	Lab Control Sample	Total/NA	Water	300.0	
480-117066-5 MS	SW-1	Total/NA	Water	300.0	
480-117066-5 MSD	SW-1	Total/NA	Water	300.0	

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Field Service / Mobile Lab

Analysis Batch: 356146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117066-1	MW-3R	Total/NA	Ground Water	Field Sampling	
480-117066-2	MW-14N	Total/NA	Ground Water	Field Sampling	
480-117066-3	MW-5R	Total/NA	Ground Water	Field Sampling	
480-117066-4	Leachate	Total/NA	Leachate	Field Sampling	
480-117066-5	SW-1	Total/NA	Water	Field Sampling	
480-117152-1	BR-1	Total/NA	Water	Field Sampling	
480-117152-2	MW-12	Total/NA	Water	Field Sampling	

Client Sample ID: MW-3R

Lab Sample ID: 480-117066-1

Date Collected: 04/27/17 10:15

Matrix: Ground Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356264	05/08/17 23:26	NEA	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356355	05/08/17 22:39	AMH	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356569	05/09/17 13:03	LMH	TAL BUF
Total/NA	Prep	7470A			354521	04/28/17 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354634	04/28/17 11:09	JRK	TAL BUF
Total/NA	Analysis	300.0		5	356816	05/11/17 19:37	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355513	05/03/17 18:04	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355550	05/04/17 03:14	KMB	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354505	04/28/17 06:06	KMB	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 02:31	EKB	TAL BUF
Total/NA	Analysis	Field Sampling		1	356146	04/27/17 10:15	FLD	TAL BUF

Client Sample ID: MW-14N

Lab Sample ID: 480-117066-2

Date Collected: 04/27/17 11:35

Matrix: Ground Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356264	05/08/17 23:53	NEA	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356355	05/08/17 22:42	AMH	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356569	05/09/17 13:07	LMH	TAL BUF
Total/NA	Prep	7470A			354521	04/28/17 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354634	04/28/17 11:16	JRK	TAL BUF
Total/NA	Analysis	300.0		5	356816	05/11/17 19:51	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355513	05/03/17 18:04	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355550	05/04/17 03:14	KMB	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354505	04/28/17 06:06	KMB	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 03:00	EKB	TAL BUF
Total/NA	Analysis	Field Sampling		1	356146	04/27/17 11:35	FLD	TAL BUF

Client Sample ID: MW-5R

Lab Sample ID: 480-117066-3

Date Collected: 04/27/17 13:15

Matrix: Ground Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356264	05/09/17 00:20	NEA	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356355	05/08/17 22:57	AMH	TAL BUF

Client Sample ID: MW-5R

Lab Sample ID: 480-117066-3

Date Collected: 04/27/17 13:15

Matrix: Ground Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			354521	04/28/17 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354634	04/28/17 11:21	JRK	TAL BUF
Total/NA	Analysis	300.0		5	356816	05/11/17 20:06	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355764	05/04/17 19:42	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355550	05/04/17 03:14	KMB	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354505	04/28/17 06:06	KMB	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 03:15	EKB	TAL BUF
Total/NA	Analysis	Field Sampling		1	356146	04/27/17 13:15	FLD	TAL BUF

Client Sample ID: Leachate

Lab Sample ID: 480-117066-4

Date Collected: 04/27/17 14:45

Matrix: Leachate

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	356264	05/09/17 00:47	NEA	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356355	05/08/17 23:00	AMH	TAL BUF
Total/NA	Prep	7470A			354521	04/28/17 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354634	04/28/17 11:23	JRK	TAL BUF
Total/NA	Analysis	300.0		5	356816	05/11/17 20:21	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355513	05/03/17 18:04	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355550	05/04/17 03:14	KMB	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354505	04/28/17 06:06	KMB	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 03:31	EKB	TAL BUF
Total/NA	Analysis	Field Sampling		1	356146	04/27/17 14:45	FLD	TAL BUF

Client Sample ID: SW-1

Lab Sample ID: 480-117066-5

Date Collected: 04/27/17 14:10

Matrix: Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356264	05/09/17 01:14	NEA	TAL BUF
Total/NA	Prep	3005A			354879	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	356355	05/08/17 23:04	AMH	TAL BUF
Total/NA	Prep	7470A			354521	04/28/17 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354634	04/28/17 11:25	JRK	TAL BUF
Total/NA	Analysis	300.0		1	356816	05/11/17 20:35	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355513	05/03/17 18:04	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355550	05/04/17 03:14	KMB	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354505	04/28/17 06:06	KMB	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 03:46	EKB	TAL BUF

Client Sample ID: SW-1

Lab Sample ID: 480-117066-5

Date Collected: 04/27/17 14:10

Matrix: Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	356146	04/27/17 14:10	FLD	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-117066-6

Date Collected: 04/27/17 08:00

Matrix: Water

Date Received: 04/27/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356264	05/09/17 01:41	NEA	TAL BUF

Client Sample ID: BR-1

Lab Sample ID: 480-117152-1

Date Collected: 04/28/17 12:35

Matrix: Water

Date Received: 04/28/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356486	05/09/17 23:43	NEA	TAL BUF
Total/NA	Prep	3005A			354872	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	355320	05/02/17 16:21	LMH	TAL BUF
Total/NA	Prep	7470A			354749	05/01/17 07:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354972	05/01/17 12:17	JRK	TAL BUF
Total/NA	Analysis	300.0		1	356816	05/11/17 13:25	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355032	05/01/17 23:31	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355757	05/04/17 20:07	CDC	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354791	04/29/17 11:05	LED	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 05:00	EKB	TAL BUF
Total/NA	Analysis	Field Sampling		1	356146	04/28/17 12:35	FLD	TAL BUF

Client Sample ID: MW-12

Lab Sample ID: 480-117152-2

Date Collected: 04/28/17 13:25

Matrix: Water

Date Received: 04/28/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356486	05/10/17 00:10	NEA	TAL BUF
Total/NA	Prep	3005A			354872	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	355320	05/02/17 16:25	LMH	TAL BUF
Total/NA	Prep	7470A			354749	05/01/17 07:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	354972	05/01/17 12:19	JRK	TAL BUF
Total/NA	Analysis	300.0		5	356816	05/11/17 13:39	DMR	TAL BUF
Total/NA	Analysis	410.4		1	355032	05/01/17 23:31	CDC	TAL BUF
Total/NA	Analysis	SM 2540C		1	355757	05/04/17 20:07	CDC	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	354791	04/29/17 11:05	LED	TAL BUF
Total/NA	Analysis	SM 5310D		1	355311	05/03/17 05:15	EKB	TAL BUF

Lab Chronicle

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Client Sample ID: MW-12

Lab Sample ID: 480-117152-2

Date Collected: 04/28/17 13:25

Matrix: Water

Date Received: 04/28/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	356146	04/28/17 13:25	FLD	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-117152-3

Date Collected: 04/28/17 08:00

Matrix: Water

Date Received: 04/28/17 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356486	05/10/17 00:37	NEA	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but are not accredited/certified under this accreditation/certification:

Analysis Method	Prep Method	Matrix	Analyte
SM 5310D		Ground Water	Total Organic Carbon
SM 5310D		Leachate	Total Organic Carbon
SM 5310D		Water	Total Organic Carbon

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Ground Water	Field EH/ORP
Field Sampling		Ground Water	pH, Field
Field Sampling		Ground Water	Specific Conductance
Field Sampling		Ground Water	Temperature, Field (C)
Field Sampling		Ground Water	Turbidity, Field
Field Sampling		Leachate	Field EH/ORP
Field Sampling		Leachate	pH, Field
Field Sampling		Leachate	Specific Conductance
Field Sampling		Leachate	Temperature, Field (C)
Field Sampling		Leachate	Turbidity, Field
Field Sampling		Water	Field EH/ORP
Field Sampling		Water	pH, Field
Field Sampling		Water	Specific Conductance
Field Sampling		Water	Temperature, Field (C)
Field Sampling		Water	Turbidity, Field

Method Summary

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
410.4	COD	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 3500 CR B	Chromium, Hexavalent	SM	TAL BUF
SM 5310D	Organic Carbon, Total (TOC)	SM	TAL BUF
Field Sampling	Field Sampling	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: CC Metals and Alloys LLC
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-117066-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-117066-1	MW-3R	Ground Water	04/27/17 10:15	04/27/17 15:20
480-117066-2	MW-14N	Ground Water	04/27/17 11:35	04/27/17 15:20
480-117066-3	MW-5R	Ground Water	04/27/17 13:15	04/27/17 15:20
480-117066-4	Leachate	Leachate	04/27/17 14:45	04/27/17 15:20
480-117066-5	SW-1	Water	04/27/17 14:10	04/27/17 15:20
480-117066-6	Trip Blank	Water	04/27/17 08:00	04/27/17 15:20
480-117152-1	BR-1	Water	04/28/17 12:35	04/28/17 15:20
480-117152-2	MW-12	Water	04/28/17 13:25	04/28/17 15:20
480-117152-3	Trip Blank	Water	04/28/17 08:00	04/28/17 15:20

TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Paul Little	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-95615-16534.1
Client Contact: Gary Joiner	Phone: 807-8730	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:
Address: PO BOX 217	Due Date Requested:			
City: Calvert City	TAT Requested (days):			
State, Zip: KY, 42029				
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required			
Email: gjoiner@ccmetals.com	WO #:			
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429			
Site: New York	SSOW#:			

Preservation Codes: A - HCL, B - NaOH, C - Zn ..., D - N..., E - N..., F - M..., G - A..., H - As..., I - Ice, J - DI ..., K - ED..., L - ED..., M - Hexane, N - None, ...ecahydrate, ...ecify)
Other:

480-117066 COC

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	SM5310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	S	D	A	A	N	N	N		
~~BR-1~~		—		Water			—	—	—	—	—	—	—	—		
MW-3R	4-27-17	1015	G	Water	N	N	1	1	1	2	3	1	–	1	10	
~~MW-12~~		—		Water			—	—	—	—	—	—	—	—		
MW-14N		1135		Water			1	1	1	2	3	1		1	10	
MW-5R		1315		Water			1	1	1	2	3	1		1	10	
Leachate		1445		Water			1	1	1	2	3	1		1	10	
SW-1		1410		Water			1	1	1	2	3	1		1	10	Pump Issues) Will complete GW sample 4-28-17
TRIP BLANK		800					—	—	—	—	2	—	—		2	

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 4-27-17 1520	Company: TAC	Received by: [signature]		Date/Time: 4-27-17 1520	Company: TAC
Relinquished by:	Date/Time:	Company:	Received by:		Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:		Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 19.5 1619 #1 Blue ICE			

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: PL, TW, TB	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-95615-16534.1
Client Contact: Gary Joiner	Phone: 807-8730	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:
Address: PO BOX 217	Due Date Requested:			
City: Calvert City	TAT Requested (days):			
State, Zip: KY, 42029				
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required			
Email: gjoiner@ccmetals.com	WO #:			
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn
D - Nit
E - Nal
F - Mel
G - Am
H - Asc
I - Ice
J - DI W
K - EDT
L - EDA
M - Hexane
N - None
ecahydrate
480-117152 COC
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	SM6310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)						Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	A	N	N	N							
BR-1	4-28-17	1235	G	Water	N	N	1	1	1	2	3	1	-	1							5	
MW-12	↓	1325	↓	Water	↓	↓	1	1	1	2	3	1	-	1							5	
TRIP BLANK	↓	800	↓	Water	↓	↓					2										1	
				Water																		
				Water																		
				Water																		
				Water																		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4-28-17 1520	JK		4-28-17 1520	JK
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0 #1

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd Sample Point ID: MW-3R

Field Personnel: PL Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 4-27-17 / 946 Cond of seal: (X) Good ( ) Cracked ____ %
( ) None ( ) Buried

Prot. Casing/riser height: ____ Cond of prot. Casing/riser: ( ) Unlocked (X) Good
( ) Loose ( ) Flush Mount
( ) Damaged ____

If prot.casing; depth to riser below: ____

Gas Meter (Calibration/ Reading): % Gas: ____ / ____ % LEL: ____ / ____

Vol. Organic Meter (Calibration/Reading): ____ Volatiles (ppm) ____ / ____

PURGE INFORMATION:

Date / Time Initiated: 4-27-17 / 950 Date / Time Completed: 4-27-17 / 1015

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 1.59 Elevation. G/W MSL: ____

Well Total Depth, Feet: 12.05 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____ Dedicated: (Y) / N

Total Volume Purged, Gal: ____ Purged To Dryness Y / (N)

Purge Observations: Low Flow Start clear Finish clear

PURGE DATA (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	WL	ml/min							
1000	1.81	150		12.3	7.42	1129	1.64	263	
1005	1.84	↓		12.0	7.40	1127	1.60	260	
1010	1.87			12.1	7.39	1127	1.57	261	
1015	1.90			12.0	7.39	1125	1.55	260	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-3A

Date/Time 4-27-17 / 1015

Water Level @ Sampling, Feet: 1.90

Method of Sampling: Peristaltic

Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (V) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1015	12.0	7.39	1125	1.55	260	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 77

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 4/27/17 By: [signature] Company: TAL

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd Sample Point ID: MW-14N

Field Personnel: PL Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 4-27-17 / 1105 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below:

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) /

PURGE INFORMATION:

Date / Time Initiated: 4-27-17 / 1108 Date / Time Completed: 4-27-17 / 1135

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 6.90 Elevation. G/W MSL:

Well Total Depth, Feet: 26.50 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: Purged To Dryness Y / (N)

Purge Observations: Low flow Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	WL	mL/min							
1120	6.50	200		11.7	7.05	1431	1.97	237	
1125	↓	↓		11.5	7.05	1425	1.90	241	
1130				11.7	7.06	1428	1.85	241	
1135	↓	↓		11.2	7.06	1427	1.83	242	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-14N

Date/Time 4-27-17 / 1135 Water Level @ Sampling, Feet: 6.50

Method of Sampling: Peristaltic Pump Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1135	11.2	7.06	1427	1.83	242	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 80°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 4/27/17 By: [signature] Company: TM

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd Sample Point ID: MW-5R

Field Personnel: PL Sample Matrix: GW

MONITORING WELL INSPECTION

Date/Time 4-27-17 / 1238 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below:

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): /

PURGE INFORMATION

Date / Time Initiated: 4-27-17 / 1241 Date / Time Completed: 4-27-17 / 1315

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 5.25 Elevation. G/W MSL:

Well Total Depth, Feet: 19.74 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: Purged To Dryness Y / (N)

Purge Observations: Low Flow Start Clear Finish Clear

PURGE DATA (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	WL	ML/min							
1300	5.31	90		10.4	7.90	867	1.03	212	
1305	5.28	↓		10.8	7.92	865	0.97	215	
1310	5.26			10.9	7.92	863	0.95	217	
1315	5.22	↓		10.7	7.92	861	0.93	218	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-5R

Date/Time 4-27-17 1315

Water Level @ Sampling, Feet: 5.22

Method of Sampling: Peristaltic Pump

Dedicated: (Y) N

Multi-phased/ layered: ( ) Yes (X) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1315	10.7	7.92	861	0.93	218	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std ~~1,413~~ µmhos/cm	Check.Std ~~1,413~~ µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std ~~20~~ NTU (± 10%)
A	7.00	4.00		6.97	1000	1003		
D							10	20
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 80

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 4/27/17 By: R Lee Company: TAL

FIELD OBSERVATIONS

Facility: CCMA Warmer RD

Sample Point ID: LEACHATE

Field Personnel: PC

Sample Matrix: LEACHATE

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 4-27-17 / 1445

Water Level @ Sampling, Feet: NA

Method of Sampling: BAILER

Dedicated: Y (N)

Multi-phased/ layered: ( ) Yes (X) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1447	10.3	7.56	1255	1.03	164	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 81°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable USEPA, State and Site-Specific protocals.

Date: 4/27/17 By: [signature] Company: TAC

FIELD OBSERVATIONS

Facility: CCMA – Wilton Rd Sample Point ID: SW-1

Field Personnel: PL Sample Matrix: Sa

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 4-27-17 / 1410 Water Level @ Sampling, Feet: NA

Method of Sampling: MANUAL GRAB Dedicated: (Y) N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1412	17.2	7.69	713	3.01	187	7.94

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 80

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable USEPA, State and Site-Specific protocals.

Date: 4/27/17 By: R Lee Company: TAL

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd Sample Point ID: BR-1

Field Personnel: PL, TW, TB Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 4-28-17 / 1200 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: _____ Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount ( ) Damaged _____

If prot.casing; depth to riser below: _____

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) /

PURGE INFORMATION:

Date / Time Initiated: 4-28-17 / 1216 Date / Time Completed: 4-28-17 / 1235

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 10.31 Elevation. G/W MSL: _____

Well Total Depth, Feet: 39.92 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: _____ Dedicated: (Y) N

Total Volume Purged, Gal: _____ Purged To Dryness Y / (N)

Purge Observations: Low flow Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	WL	mL/min							
1225	10.34	200		11.7	7.84	493	2.16	159	
1230	↓			11.9	7.79	482	1.97	159	
1235	↓			11.8	7.77	482	1.95	159	

FIELD OBSERVATIONS

SAMPLING INFORMATION

POINT ID BR-1

Date/Time 4-28-17 / 1235 Water Level @ Sampling, Feet: 10.34

Method of Sampling: Peristaltic Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1235	11.8	7.77	402	1.95	159	
1"						

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std ~~1,413~~ 1000 µmhos/cm	Check.Std ~~1,413~~ 1000 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std ~~20~~ NTU (± 10%)
A	7.00	4.00		7.01	1000	1003		
B							10	20
Solution ID#	3824C74	3823757		3910143	3981371	3981233	3224226	3863191

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 57°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 4/28/17 By: [signature] Company: TAL

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd Sample Point ID: MW-12

Field Personnel: PL Sample Matrix: GW

MONITORING WELL INSPECTION:

Date/Time 4-28-17 / 1303 Cond of seal: (✓) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: Cond of prot. Casing/riser: ( ) Unlocked (✓) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below:

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): /

PURGE INFORMATION:

Date / Time Initiated: 4-28-17 / 1307 Date / Time Completed: 4-28-17 / 1325

Surf. Meas. Pt: ( ) Prot. Casing (✓) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 8.19 Elevation. G/W MSL:

Well Total Depth, Feet: 19.65 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: Purged To Dryness Y / (N)

Purge Observations: Low Flow Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	WL / ml/min							
1315	8.24 / 130		11.6	7.59	1044	2.41	171	
1320	8.27 / ↓		11.7	7.57	1050	2.37	169	
1325	8.31 / ↓		11.7	7.57	1051	2.35	168	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID Ma-12

Date/Time 4-28-17 / 1325

Water Level @ Sampling, Feet: 8.31 ~~13.25~~

Method of Sampling: Peristaltic Pump Dedicated: Y / N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1325	11.7	7.57	1051	2.30	KO	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 57

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 4/28/17 By: [signature] Company: TK

Login Sample Receipt Checklist

Client: CC Metals and Alloys LLC

Job Number: 480-117066-1

Login Number: 117066

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kolb, Chris M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Yes: Received same day of collection; chilling process has begun
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TESTAMERICA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: CC Metals and Alloys LLC

Job Number: 480-117066-1

Login Number: 117152

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kolb, Chris M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TESTAMERICA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-135797-1
Client Project/Site: Witmer Road G/W

For:
LAN Associates
88 Riberia Street
Suite 400
St. Augustine, Florida 32084

Attn: Mr. Chris L. Callegari

Joseph V. Giacomazza

Authorized for release by:
5/30/2018 4:17:48 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

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

Job ID: 480-135797-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-135797-1

Receipt
The samples were received on 5/12/2018 12:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 15.2º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-521544 recovered outside control limits for the following analytes: 2-Hexanone, 4-Methyl-2-pentanone (MIBK), 2-Butanone (MEK) and Bromoform. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 460-521544 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

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

HPLC/IC
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-3R (480-135797-2), MW-12 (480-135797-3), MW-14N (480-135797-4), MW-5R (480-135797-5) and Leachate (480-135797-6). Elevated reporting limits (RLs) are provided.

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

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

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

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

Detection Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: BR-1 — Lab Sample ID: 480-135797-1

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	13				millivolts	1		Field Sampling	Total/NA
pH, Field	7.81				SU	1		Field Sampling	Total/NA
Specific Conductance	565				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	10.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.67				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.11		0.0020		mg/L	1		6010C	Total/NA
Boron	0.14		0.020		mg/L	1		6010C	Total/NA
Manganese	0.31		0.0030		mg/L	1		6010C	Total/NA
Potassium	8.7		0.50		mg/L	1		6010C	Total/NA
Sodium	41.7		1.0		mg/L	1		6010C	Total/NA
Chloride	11.7		0.50		mg/L	1		300.0	Total/NA
Sulfate	13.8		2.0		mg/L	1		300.0	Total/NA
Total Organic Carbon	2.8		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	325		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3R — Lab Sample ID: 480-135797-2

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	92				millivolts	1		Field Sampling	Total/NA
pH, Field	7.70				SU	1		Field Sampling	Total/NA
Specific Conductance	1322				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	11.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.5				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.032		0.0020		mg/L	1		6010C	Total/NA
Boron	0.14		0.020		mg/L	1		6010C	Total/NA
Chromium	0.0055		0.0040		mg/L	1		6010C	Total/NA
Potassium	0.58		0.50		mg/L	1		6010C	Total/NA
Sodium	37.3		1.0		mg/L	1		6010C	Total/NA
Chloride	108		2.5		mg/L	5		300.0	Total/NA
Sulfate	190		10.0		mg/L	5		300.0	Total/NA
Total Organic Carbon	1.9		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	838		20.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 480-135797-3

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	92				millivolts	1		Field Sampling	Total/NA
pH, Field	7.71				SU	1		Field Sampling	Total/NA
Specific Conductance	1218				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	10.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.8				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.1		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	2.8		1.0		ug/L	1		8260C	Total/NA
Barium	0.046		0.0020		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-12 (Continued) — Lab Sample ID: 480-135797-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.18		0.020		mg/L	1		6010C	Total/NA
Manganese	0.071		0.0030		mg/L	1		6010C	Total/NA
Potassium	4.6		0.50		mg/L	1		6010C	Total/NA
Sodium	94.0		1.0		mg/L	1		6010C	Total/NA
Chloride	169		2.5		mg/L	5		300.0	Total/NA
Sulfate	160		10.0		mg/L	5		300.0	Total/NA
Total Organic Carbon	2.4		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	818		20.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14N — Lab Sample ID: 480-135797-4

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	36				millivolts	1		Field Sampling	Total/NA
pH, Field	7.26				SU	1		Field Sampling	Total/NA
Specific Conductance	1589				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	11.8				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	2.3				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	25		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	2.3		1.0		ug/L	1		8260C	Total/NA
Barium	0.14		0.0020		mg/L	1		6010C	Total/NA
Boron	0.12		0.020		mg/L	1		6010C	Total/NA
Manganese	0.13		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.0		0.50		mg/L	1		6010C	Total/NA
Sodium	103		1.0		mg/L	1		6010C	Total/NA
Chloride	175		2.5		mg/L	5		300.0	Total/NA
Sulfate	237		10.0		mg/L	5		300.0	Total/NA
Total Organic Carbon	2.4		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	956		40.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5R — Lab Sample ID: 480-135797-5

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	80				millivolts	1		Field Sampling	Total/NA
pH, Field	8.22				SU	1		Field Sampling	Total/NA
Specific Conductance	920				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	10.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.5				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.055		0.0020		mg/L	1		6010C	Total/NA
Boron	0.19		0.020		mg/L	1		6010C	Total/NA
Manganese	0.018		0.0030		mg/L	1		6010C	Total/NA
Potassium	20.3		0.50		mg/L	1		6010C	Total/NA
Sodium	77.1		1.0		mg/L	1		6010C	Total/NA
Bromide	1.0		1.0		mg/L	5		300.0	Total/NA
Chloride	84.7		2.5		mg/L	5		300.0	Total/NA
Sulfate	182		10.0		mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-5R (Continued) — Lab Sample ID: 480-135797-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	19.3		10.0		mg/L	1		410.4	Total/NA
Total Organic Carbon	4.9		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	554		20.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Leachate — Lab Sample ID: 480-135797-6

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	75				millivolts	1		Field Sampling	Total/NA
pH, Field	8.47				SU	1		Field Sampling	Total/NA
Specific Conductance	1083				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field (C)	13.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.8				NTU	1		Field Sampling	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.052		0.0020		mg/L	1		6010C	Total/NA
Boron	0.31		0.020		mg/L	1		6010C	Total/NA
Chromium	0.011		0.0040		mg/L	1		6010C	Total/NA
Manganese	0.041		0.0030		mg/L	1		6010C	Total/NA
Potassium	83.1		0.50		mg/L	1		6010C	Total/NA
Sodium	68.3		1.0		mg/L	1		6010C	Total/NA
Bromide	2.0		1.0		mg/L	5		300.0	Total/NA
Chloride	119		2.5		mg/L	5		300.0	Total/NA
Sulfate	129		10.0		mg/L	5		300.0	Total/NA
Chemical Oxygen Demand	20.0		10.0		mg/L	1		410.4	Total/NA
Total Organic Carbon	6.1		1.0		mg/L	1		SM 5310C	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	648		20.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-135797-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: BR-1
Date Collected: 05/11/18 13:32
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1-Dichloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,1-Dichloroethene	ND		1.0		ug/L			05/22/18 23:24	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/22/18 23:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/22/18 23:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/22/18 23:24	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:24	1
1,2-Dichloroethane	ND		1.0		ug/L			05/22/18 23:24	1
1,2-Dichloropropane	ND		1.0		ug/L			05/22/18 23:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:24	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:24	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/22/18 23:24	1
2-Hexanone	ND	*	5.0		ug/L			05/22/18 23:24	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/22/18 23:24	1
Acetone	ND		5.0		ug/L			05/22/18 23:24	1
Acetonitrile	ND		10		ug/L			05/22/18 23:24	1
Benzene	ND		1.0		ug/L			05/22/18 23:24	1
Bromoform	ND	*	1.0		ug/L			05/22/18 23:24	1
Bromomethane	ND		1.0		ug/L			05/22/18 23:24	1
Carbon disulfide	ND		1.0		ug/L			05/22/18 23:24	1
Carbon tetrachloride	ND		1.0		ug/L			05/22/18 23:24	1
Chlorobenzene	ND		1.0		ug/L			05/22/18 23:24	1
Bromochloromethane	ND		1.0		ug/L			05/22/18 23:24	1
Dibromochloromethane	ND		1.0		ug/L			05/22/18 23:24	1
Chloroethane	ND		1.0		ug/L			05/22/18 23:24	1
Chloroform	ND		1.0		ug/L			05/22/18 23:24	1
Chloromethane	ND		1.0		ug/L			05/22/18 23:24	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 23:24	1
Cyclohexane	ND		1.0		ug/L			05/22/18 23:24	1
Dibromomethane	ND		1.0		ug/L			05/22/18 23:24	1
Bromodichloromethane	ND		1.0		ug/L			05/22/18 23:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/22/18 23:24	1
Ethylbenzene	ND		1.0		ug/L			05/22/18 23:24	1
1,2-Dibromoethane	ND		1.0		ug/L			05/22/18 23:24	1
Iodomethane	ND		1.0		ug/L			05/22/18 23:24	1
Isopropylbenzene	ND		1.0		ug/L			05/22/18 23:24	1
Methyl acetate	ND		5.0		ug/L			05/22/18 23:24	1
Methylcyclohexane	ND		1.0		ug/L			05/22/18 23:24	1
Methylene Chloride	ND		1.0		ug/L			05/22/18 23:24	1
m,p-Xylene	ND		1.0		ug/L			05/22/18 23:24	1
o-Xylene	ND		1.0		ug/L			05/22/18 23:24	1
Tetrachloroethene	ND		1.0		ug/L			05/22/18 23:24	1
Toluene	ND		1.0		ug/L			05/22/18 23:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 23:24	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 23:24	1

Client Sample ID: BR-1

Date Collected: 05/11/18 13:32
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/22/18 23:24	1
Trichloroethene	ND		1.0		ug/L			05/22/18 23:24	1
Trichlorofluoromethane	ND		1.0		ug/L			05/22/18 23:24	1
Vinyl acetate	ND		2.0		ug/L			05/22/18 23:24	1
Vinyl chloride	ND		1.0		ug/L			05/22/18 23:24	1
Xylenes, Total	ND		2.0		ug/L			05/22/18 23:24	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 23:24	1
Styrene	ND		1.0		ug/L			05/22/18 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*74 - 132*		*05/22/18 23:24*	*1*
4-Bromofluorobenzene	*99*		*77 - 124*		*05/22/18 23:24*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/22/18 23:24*	*1*
Dibromofluoromethane (Surr)	*104*		*72 - 131*		*05/22/18 23:24*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:15	1
Barium	**0.11**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:15	1
Boron	**0.14**		0.020		mg/L		05/16/18 09:38	05/22/18 03:15	1
Chromium	ND		0.0040		mg/L		05/16/18 09:38	05/22/18 03:15	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:15	1
Manganese	**0.31**		0.0030		mg/L		05/16/18 09:38	05/22/18 03:15	1
Potassium	**8.7**		0.50		mg/L		05/16/18 09:38	05/22/18 03:15	1
Sodium	**41.7**		1.0		mg/L		05/16/18 09:38	05/22/18 03:15	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/14/18 14:11	1
Chloride	**11.7**		0.50		mg/L			05/14/18 14:11	1
Sulfate	**13.8**		2.0		mg/L			05/14/18 14:11	1
Chemical Oxygen Demand	ND		100		mg/L			05/19/18 18:57	10
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**2.8**		1.0		mg/L			05/23/18 12:51	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**325**		10.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**13**				millivolts			05/11/18 13:32	1
pH, Field	**7.81**				SU			05/11/18 13:32	1
Specific Conductance	**565**				umhos/cm			05/11/18 13:32	1
Temperature, Field (C)	**10.4**				Degrees C			05/11/18 13:32	1
Turbidity, Field	**1.67**				NTU			05/11/18 13:32	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-3R
Date Collected: 05/11/18 10:48
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1-Dichloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,1-Dichloroethene	ND		1.0		ug/L			05/22/18 23:48	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/22/18 23:48	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/22/18 23:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/22/18 23:48	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:48	1
1,2-Dichloroethane	ND		1.0		ug/L			05/22/18 23:48	1
1,2-Dichloropropane	ND		1.0		ug/L			05/22/18 23:48	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:48	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/22/18 23:48	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/22/18 23:48	1
2-Hexanone	ND	*	5.0		ug/L			05/22/18 23:48	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/22/18 23:48	1
Acetone	ND		5.0		ug/L			05/22/18 23:48	1
Acetonitrile	ND		10		ug/L			05/22/18 23:48	1
Benzene	ND		1.0		ug/L			05/22/18 23:48	1
Bromoform	ND	*	1.0		ug/L			05/22/18 23:48	1
Bromomethane	ND		1.0		ug/L			05/22/18 23:48	1
Carbon disulfide	ND		1.0		ug/L			05/22/18 23:48	1
Carbon tetrachloride	ND		1.0		ug/L			05/22/18 23:48	1
Chlorobenzene	ND		1.0		ug/L			05/22/18 23:48	1
Bromochloromethane	ND		1.0		ug/L			05/22/18 23:48	1
Dibromochloromethane	ND		1.0		ug/L			05/22/18 23:48	1
Chloroethane	ND		1.0		ug/L			05/22/18 23:48	1
Chloroform	ND		1.0		ug/L			05/22/18 23:48	1
Chloromethane	ND		1.0		ug/L			05/22/18 23:48	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 23:48	1
Cyclohexane	ND		1.0		ug/L			05/22/18 23:48	1
Dibromomethane	ND		1.0		ug/L			05/22/18 23:48	1
Bromodichloromethane	ND		1.0		ug/L			05/22/18 23:48	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/22/18 23:48	1
Ethylbenzene	ND		1.0		ug/L			05/22/18 23:48	1
1,2-Dibromoethane	ND		1.0		ug/L			05/22/18 23:48	1
Iodomethane	ND		1.0		ug/L			05/22/18 23:48	1
Isopropylbenzene	ND		1.0		ug/L			05/22/18 23:48	1
Methyl acetate	ND		5.0		ug/L			05/22/18 23:48	1
Methylcyclohexane	ND		1.0		ug/L			05/22/18 23:48	1
Methylene Chloride	ND		1.0		ug/L			05/22/18 23:48	1
m,p-Xylene	ND		1.0		ug/L			05/22/18 23:48	1
o-Xylene	ND		1.0		ug/L			05/22/18 23:48	1
Tetrachloroethene	ND		1.0		ug/L			05/22/18 23:48	1
Toluene	ND		1.0		ug/L			05/22/18 23:48	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 23:48	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 23:48	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-3R
Date Collected: 05/11/18 10:48
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/22/18 23:48	1
Trichloroethene	ND		1.0		ug/L			05/22/18 23:48	1
Trichlorofluoromethane	ND		1.0		ug/L			05/22/18 23:48	1
Vinyl acetate	ND		2.0		ug/L			05/22/18 23:48	1
Vinyl chloride	ND		1.0		ug/L			05/22/18 23:48	1
Xylenes, Total	ND		2.0		ug/L			05/22/18 23:48	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 23:48	1
Styrene	ND		1.0		ug/L			05/22/18 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*05/22/18 23:48*	*1*
4-Bromofluorobenzene	*98*		*77 - 124*		*05/22/18 23:48*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/22/18 23:48*	*1*
Dibromofluoromethane (Surr)	*101*		*72 - 131*		*05/22/18 23:48*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:18	1
Barium	**0.032**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:18	1
Boron	**0.14**		0.020		mg/L		05/16/18 09:38	05/22/18 03:18	1
Chromium	**0.0055**		0.0040		mg/L		05/16/18 09:38	05/22/18 03:18	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:18	1
Manganese	ND		0.0030		mg/L		05/16/18 09:38	05/22/18 03:18	1
Potassium	**0.58**		0.50		mg/L		05/16/18 09:38	05/22/18 03:18	1
Sodium	**37.3**		1.0		mg/L		05/16/18 09:38	05/22/18 03:18	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/14/18 14:25	5
Chloride	**108**		2.5		mg/L			05/14/18 14:25	5
Sulfate	**190**		10.0		mg/L			05/14/18 14:25	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/19/18 18:57	1
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**1.9**		1.0		mg/L			05/23/18 13:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**838**		20.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**92**				millivolts			05/11/18 10:48	1
pH, Field	**7.70**				SU			05/11/18 10:48	1
Specific Conductance	**1322**				umhos/cm			05/11/18 10:48	1
Temperature, Field (C)	**11.1**				Degrees C			05/11/18 10:48	1
Turbidity, Field	**1.5**				NTU			05/11/18 10:48	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-12
Date Collected: 05/11/18 09:37
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1-Dichloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,1-Dichloroethene	ND		1.0		ug/L			05/23/18 00:11	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/23/18 00:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/23/18 00:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/23/18 00:11	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:11	1
1,2-Dichloroethane	ND		1.0		ug/L			05/23/18 00:11	1
1,2-Dichloropropane	ND		1.0		ug/L			05/23/18 00:11	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:11	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:11	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/23/18 00:11	1
2-Hexanone	ND	*	5.0		ug/L			05/23/18 00:11	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/23/18 00:11	1
Acetone	ND		5.0		ug/L			05/23/18 00:11	1
Acetonitrile	ND		10		ug/L			05/23/18 00:11	1
Benzene	ND		1.0		ug/L			05/23/18 00:11	1
Bromoform	ND	*	1.0		ug/L			05/23/18 00:11	1
Bromomethane	ND		1.0		ug/L			05/23/18 00:11	1
Carbon disulfide	ND		1.0		ug/L			05/23/18 00:11	1
Carbon tetrachloride	ND		1.0		ug/L			05/23/18 00:11	1
Chlorobenzene	ND		1.0		ug/L			05/23/18 00:11	1
Bromochloromethane	ND		1.0		ug/L			05/23/18 00:11	1
Dibromochloromethane	ND		1.0		ug/L			05/23/18 00:11	1
Chloroethane	ND		1.0		ug/L			05/23/18 00:11	1
Chloroform	ND		1.0		ug/L			05/23/18 00:11	1
Chloromethane	ND		1.0		ug/L			05/23/18 00:11	1
cis-1,2-Dichloroethene	**3.1**		1.0		ug/L			05/23/18 00:11	1
Cyclohexane	ND		1.0		ug/L			05/23/18 00:11	1
Dibromomethane	ND		1.0		ug/L			05/23/18 00:11	1
Bromodichloromethane	ND		1.0		ug/L			05/23/18 00:11	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/23/18 00:11	1
Ethylbenzene	ND		1.0		ug/L			05/23/18 00:11	1
1,2-Dibromoethane	ND		1.0		ug/L			05/23/18 00:11	1
Iodomethane	ND		1.0		ug/L			05/23/18 00:11	1
Isopropylbenzene	ND		1.0		ug/L			05/23/18 00:11	1
Methyl acetate	ND		5.0		ug/L			05/23/18 00:11	1
Methylcyclohexane	ND		1.0		ug/L			05/23/18 00:11	1
Methylene Chloride	ND		1.0		ug/L			05/23/18 00:11	1
m,p-Xylene	ND		1.0		ug/L			05/23/18 00:11	1
o-Xylene	ND		1.0		ug/L			05/23/18 00:11	1
Tetrachloroethene	ND		1.0		ug/L			05/23/18 00:11	1
Toluene	ND		1.0		ug/L			05/23/18 00:11	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 00:11	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:11	1

Client Sample ID: MW-12
Date Collected: 05/11/18 09:37
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/23/18 00:11	1
Trichloroethene	ND		1.0		ug/L			05/23/18 00:11	1
Trichlorofluoromethane	ND		1.0		ug/L			05/23/18 00:11	1
Vinyl acetate	ND		2.0		ug/L			05/23/18 00:11	1
Vinyl chloride	**2.8**		1.0		ug/L			05/23/18 00:11	1
Xylenes, Total	ND		2.0		ug/L			05/23/18 00:11	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:11	1
Styrene	ND		1.0		ug/L			05/23/18 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*05/23/18 00:11*	*1*
4-Bromofluorobenzene	*98*		*77 - 124*		*05/23/18 00:11*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/23/18 00:11*	*1*
Dibromofluoromethane (Surr)	*102*		*72 - 131*		*05/23/18 00:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:22	1
Barium	**0.046**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:22	1
Boron	**0.18**		0.020		mg/L		05/16/18 09:38	05/22/18 03:22	1
Chromium	ND		0.0040		mg/L		05/16/18 09:38	05/22/18 03:22	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:22	1
Manganese	**0.071**		0.0030		mg/L		05/16/18 09:38	05/22/18 03:22	1
Potassium	**4.6**		0.50		mg/L		05/16/18 09:38	05/22/18 03:22	1
Sodium	**94.0**		1.0		mg/L		05/16/18 09:38	05/22/18 03:22	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/14/18 14:40	5
Chloride	**169**		2.5		mg/L			05/14/18 14:40	5
Sulfate	**160**		10.0		mg/L			05/14/18 14:40	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/19/18 18:57	1
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**2.4**		1.0		mg/L			05/23/18 14:23	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**818**		20.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**92**				millivolts			05/11/18 09:37	1
pH, Field	**7.71**				SU			05/11/18 09:37	1
Specific Conductance	**1218**				umhos/cm			05/11/18 09:37	1
Temperature, Field (C)	**10.7**				Degrees C			05/11/18 09:37	1
Turbidity, Field	**1.8**				NTU			05/11/18 09:37	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-14N
Date Collected: 05/11/18 12:40
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1-Dichloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,1-Dichloroethene	ND		1.0		ug/L			05/23/18 00:35	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/23/18 00:35	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/23/18 00:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/23/18 00:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:35	1
1,2-Dichloroethane	ND		1.0		ug/L			05/23/18 00:35	1
1,2-Dichloropropane	ND		1.0		ug/L			05/23/18 00:35	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:35	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/23/18 00:35	1
2-Hexanone	ND	*	5.0		ug/L			05/23/18 00:35	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/23/18 00:35	1
Acetone	ND		5.0		ug/L			05/23/18 00:35	1
Acetonitrile	ND		10		ug/L			05/23/18 00:35	1
Benzene	ND		1.0		ug/L			05/23/18 00:35	1
Bromoform	ND	*	1.0		ug/L			05/23/18 00:35	1
Bromomethane	ND		1.0		ug/L			05/23/18 00:35	1
Carbon disulfide	ND		1.0		ug/L			05/23/18 00:35	1
Carbon tetrachloride	ND		1.0		ug/L			05/23/18 00:35	1
Chlorobenzene	ND		1.0		ug/L			05/23/18 00:35	1
Bromochloromethane	ND		1.0		ug/L			05/23/18 00:35	1
Dibromochloromethane	ND		1.0		ug/L			05/23/18 00:35	1
Chloroethane	ND		1.0		ug/L			05/23/18 00:35	1
Chloroform	ND		1.0		ug/L			05/23/18 00:35	1
Chloromethane	ND		1.0		ug/L			05/23/18 00:35	1
cis-1,2-Dichloroethene	**25**		1.0		ug/L			05/23/18 00:35	1
Cyclohexane	ND		1.0		ug/L			05/23/18 00:35	1
Dibromomethane	ND		1.0		ug/L			05/23/18 00:35	1
Bromodichloromethane	ND		1.0		ug/L			05/23/18 00:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/23/18 00:35	1
Ethylbenzene	ND		1.0		ug/L			05/23/18 00:35	1
1,2-Dibromoethane	ND		1.0		ug/L			05/23/18 00:35	1
Iodomethane	ND		1.0		ug/L			05/23/18 00:35	1
Isopropylbenzene	ND		1.0		ug/L			05/23/18 00:35	1
Methyl acetate	ND		5.0		ug/L			05/23/18 00:35	1
Methylcyclohexane	ND		1.0		ug/L			05/23/18 00:35	1
Methylene Chloride	ND		1.0		ug/L			05/23/18 00:35	1
m,p-Xylene	ND		1.0		ug/L			05/23/18 00:35	1
o-Xylene	ND		1.0		ug/L			05/23/18 00:35	1
Tetrachloroethene	ND		1.0		ug/L			05/23/18 00:35	1
Toluene	ND		1.0		ug/L			05/23/18 00:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 00:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:35	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-14N
Date Collected: 05/11/18 12:40
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/23/18 00:35	1
Trichloroethene	ND		1.0		ug/L			05/23/18 00:35	1
Trichlorofluoromethane	ND		1.0		ug/L			05/23/18 00:35	1
Vinyl acetate	ND		2.0		ug/L			05/23/18 00:35	1
Vinyl chloride	**2.3**		1.0		ug/L			05/23/18 00:35	1
Xylenes, Total	ND		2.0		ug/L			05/23/18 00:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:35	1
Styrene	ND		1.0		ug/L			05/23/18 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*05/23/18 00:35*	*1*
4-Bromofluorobenzene	*101*		*77 - 124*		*05/23/18 00:35*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/23/18 00:35*	*1*
Dibromofluoromethane (Surr)	*102*		*72 - 131*		*05/23/18 00:35*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:26	1
Barium	**0.14**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:26	1
Boron	**0.12**		0.020		mg/L		05/16/18 09:38	05/22/18 03:26	1
Chromium	ND		0.0040		mg/L		05/16/18 09:38	05/22/18 03:26	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:26	1
Manganese	**0.13**		0.0030		mg/L		05/16/18 09:38	05/22/18 03:26	1
Potassium	**3.0**		0.50		mg/L		05/16/18 09:38	05/22/18 03:26	1
Sodium	**103**		1.0		mg/L		05/16/18 09:38	05/22/18 03:26	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/14/18 14:55	5
Chloride	**175**		2.5		mg/L			05/14/18 14:55	5
Sulfate	**237**		10.0		mg/L			05/14/18 14:55	5
Chemical Oxygen Demand	ND		10.0		mg/L			05/19/18 18:57	1
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**2.4**		1.0		mg/L			05/23/18 15:09	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**956**		40.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**36**				millivolts			05/11/18 12:40	1
pH, Field	**7.26**				SU			05/11/18 12:40	1
Specific Conductance	**1589**				umhos/cm			05/11/18 12:40	1
Temperature, Field (C)	**11.8**				Degrees C			05/11/18 12:40	1
Turbidity, Field	**2.3**				NTU			05/11/18 12:40	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-5R
Date Collected: 05/11/18 11:42
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1-Dichloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,1-Dichloroethene	ND		1.0		ug/L			05/23/18 00:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/23/18 00:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/23/18 00:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/23/18 00:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:59	1
1,2-Dichloroethane	ND		1.0		ug/L			05/23/18 00:59	1
1,2-Dichloropropane	ND		1.0		ug/L			05/23/18 00:59	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/23/18 00:59	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/23/18 00:59	1
2-Hexanone	ND	*	5.0		ug/L			05/23/18 00:59	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/23/18 00:59	1
Acetone	ND		5.0		ug/L			05/23/18 00:59	1
Acetonitrile	ND		10		ug/L			05/23/18 00:59	1
Benzene	ND		1.0		ug/L			05/23/18 00:59	1
Bromoform	ND	*	1.0		ug/L			05/23/18 00:59	1
Bromomethane	ND		1.0		ug/L			05/23/18 00:59	1
Carbon disulfide	ND		1.0		ug/L			05/23/18 00:59	1
Carbon tetrachloride	ND		1.0		ug/L			05/23/18 00:59	1
Chlorobenzene	ND		1.0		ug/L			05/23/18 00:59	1
Bromochloromethane	ND		1.0		ug/L			05/23/18 00:59	1
Dibromochloromethane	ND		1.0		ug/L			05/23/18 00:59	1
Chloroethane	ND		1.0		ug/L			05/23/18 00:59	1
Chloroform	ND		1.0		ug/L			05/23/18 00:59	1
Chloromethane	ND		1.0		ug/L			05/23/18 00:59	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 00:59	1
Cyclohexane	ND		1.0		ug/L			05/23/18 00:59	1
Dibromomethane	ND		1.0		ug/L			05/23/18 00:59	1
Bromodichloromethane	ND		1.0		ug/L			05/23/18 00:59	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/23/18 00:59	1
Ethylbenzene	ND		1.0		ug/L			05/23/18 00:59	1
1,2-Dibromoethane	ND		1.0		ug/L			05/23/18 00:59	1
Iodomethane	ND		1.0		ug/L			05/23/18 00:59	1
Isopropylbenzene	ND		1.0		ug/L			05/23/18 00:59	1
Methyl acetate	ND		5.0		ug/L			05/23/18 00:59	1
Methylcyclohexane	ND		1.0		ug/L			05/23/18 00:59	1
Methylene Chloride	ND		1.0		ug/L			05/23/18 00:59	1
m,p-Xylene	ND		1.0		ug/L			05/23/18 00:59	1
o-Xylene	ND		1.0		ug/L			05/23/18 00:59	1
Tetrachloroethene	ND		1.0		ug/L			05/23/18 00:59	1
Toluene	ND		1.0		ug/L			05/23/18 00:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 00:59	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:59	1

Client Sample ID: MW-5R
Date Collected: 05/11/18 11:42
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/23/18 00:59	1
Trichloroethene	ND		1.0		ug/L			05/23/18 00:59	1
Trichlorofluoromethane	ND		1.0		ug/L			05/23/18 00:59	1
Vinyl acetate	ND		2.0		ug/L			05/23/18 00:59	1
Vinyl chloride	ND		1.0		ug/L			05/23/18 00:59	1
Xylenes, Total	ND		2.0		ug/L			05/23/18 00:59	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 00:59	1
Styrene	ND		1.0		ug/L			05/23/18 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*05/23/18 00:59*	*1*
4-Bromofluorobenzene	*101*		*77 - 124*		*05/23/18 00:59*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/23/18 00:59*	*1*
Dibromofluoromethane (Surr)	*103*		*72 - 131*		*05/23/18 00:59*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:30	1
Barium	**0.055**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:30	1
Boron	**0.19**		0.020		mg/L		05/16/18 09:38	05/22/18 03:30	1
Chromium	ND		0.0040		mg/L		05/16/18 09:38	05/22/18 03:30	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:30	1
Manganese	**0.018**		0.0030		mg/L		05/16/18 09:38	05/22/18 03:30	1
Potassium	**20.3**		0.50		mg/L		05/16/18 09:38	05/22/18 03:30	1
Sodium	**77.1**		1.0		mg/L		05/16/18 09:38	05/22/18 03:30	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**1.0**		1.0		mg/L			05/14/18 16:08	5
Chloride	**84.7**		2.5		mg/L			05/14/18 16:08	5
Sulfate	**182**		10.0		mg/L			05/14/18 16:08	5
Chemical Oxygen Demand	**19.3**		10.0		mg/L			05/19/18 18:57	1
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**4.9**		1.0		mg/L			05/23/18 15:24	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**554**		20.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**80**				millivolts			05/11/18 11:42	1
pH, Field	**8.22**				SU			05/11/18 11:42	1
Specific Conductance	**920**				umhos/cm			05/11/18 11:42	1
Temperature, Field (C)	**10.1**				Degrees C			05/11/18 11:42	1
Turbidity, Field	**1.5**				NTU			05/11/18 11:42	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: Leachate
Date Collected: 05/11/18 11:12
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1-Dichloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,1-Dichloroethene	ND		1.0		ug/L			05/23/18 01:22	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/23/18 01:22	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/23/18 01:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/23/18 01:22	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/23/18 01:22	1
1,2-Dichloroethane	ND		1.0		ug/L			05/23/18 01:22	1
1,2-Dichloropropane	ND		1.0		ug/L			05/23/18 01:22	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/23/18 01:22	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/23/18 01:22	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/23/18 01:22	1
2-Hexanone	ND	*	5.0		ug/L			05/23/18 01:22	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/23/18 01:22	1
Acetone	ND		5.0		ug/L			05/23/18 01:22	1
Acetonitrile	ND		10		ug/L			05/23/18 01:22	1
Benzene	ND		1.0		ug/L			05/23/18 01:22	1
Bromoform	ND	*	1.0		ug/L			05/23/18 01:22	1
Bromomethane	ND		1.0		ug/L			05/23/18 01:22	1
Carbon disulfide	ND		1.0		ug/L			05/23/18 01:22	1
Carbon tetrachloride	ND		1.0		ug/L			05/23/18 01:22	1
Chlorobenzene	ND		1.0		ug/L			05/23/18 01:22	1
Bromochloromethane	ND		1.0		ug/L			05/23/18 01:22	1
Dibromochloromethane	ND		1.0		ug/L			05/23/18 01:22	1
Chloroethane	ND		1.0		ug/L			05/23/18 01:22	1
Chloroform	ND		1.0		ug/L			05/23/18 01:22	1
Chloromethane	ND		1.0		ug/L			05/23/18 01:22	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 01:22	1
Cyclohexane	ND		1.0		ug/L			05/23/18 01:22	1
Dibromomethane	ND		1.0		ug/L			05/23/18 01:22	1
Bromodichloromethane	ND		1.0		ug/L			05/23/18 01:22	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/23/18 01:22	1
Ethylbenzene	ND		1.0		ug/L			05/23/18 01:22	1
1,2-Dibromoethane	ND		1.0		ug/L			05/23/18 01:22	1
Iodomethane	ND		1.0		ug/L			05/23/18 01:22	1
Isopropylbenzene	ND		1.0		ug/L			05/23/18 01:22	1
Methyl acetate	ND		5.0		ug/L			05/23/18 01:22	1
Methylcyclohexane	ND		1.0		ug/L			05/23/18 01:22	1
Methylene Chloride	ND		1.0		ug/L			05/23/18 01:22	1
m,p-Xylene	ND		1.0		ug/L			05/23/18 01:22	1
o-Xylene	ND		1.0		ug/L			05/23/18 01:22	1
Tetrachloroethene	ND		1.0		ug/L			05/23/18 01:22	1
Toluene	ND		1.0		ug/L			05/23/18 01:22	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/23/18 01:22	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 01:22	1

Client Sample ID: Leachate

Date Collected: 05/11/18 11:12
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/23/18 01:22	1
Trichloroethene	ND		1.0		ug/L			05/23/18 01:22	1
Trichlorofluoromethane	ND		1.0		ug/L			05/23/18 01:22	1
Vinyl acetate	ND		2.0		ug/L			05/23/18 01:22	1
Vinyl chloride	ND		1.0		ug/L			05/23/18 01:22	1
Xylenes, Total	ND		2.0		ug/L			05/23/18 01:22	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/23/18 01:22	1
Styrene	ND		1.0		ug/L			05/23/18 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*05/23/18 01:22*	*1*
4-Bromofluorobenzene	*101*		*77 - 124*		*05/23/18 01:22*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/23/18 01:22*	*1*
Dibromofluoromethane (Surr)	*103*		*72 - 131*		*05/23/18 01:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		05/16/18 09:38	05/22/18 03:34	1
Barium	**0.052**		0.0020		mg/L		05/16/18 09:38	05/22/18 03:34	1
Boron	**0.31**		0.020		mg/L		05/16/18 09:38	05/22/18 03:34	1
Chromium	**0.011**		0.0040		mg/L		05/16/18 09:38	05/22/18 03:34	1
Lead	ND		0.010		mg/L		05/16/18 09:38	05/22/18 03:34	1
Manganese	**0.041**		0.0030		mg/L		05/16/18 09:38	05/22/18 03:34	1
Potassium	**83.1**		0.50		mg/L		05/16/18 09:38	05/22/18 03:34	1
Sodium	**68.3**		1.0		mg/L		05/16/18 09:38	05/22/18 03:34	1
Selenium	ND		0.025		mg/L		05/16/18 09:38	05/22/18 03:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.0**		1.0		mg/L			05/14/18 16:22	5
Chloride	**119**		2.5		mg/L			05/14/18 16:22	5
Sulfate	**129**		10.0		mg/L			05/14/18 16:22	5
Chemical Oxygen Demand	**20.0**		10.0		mg/L			05/19/18 18:57	1
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1
Total Organic Carbon	**6.1**		1.0		mg/L			05/23/18 15:40	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**648**		20.0		mg/L			05/17/18 17:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**75**				millivolts			05/11/18 11:12	1
pH, Field	**8.47**				SU			05/11/18 11:12	1
Specific Conductance	**1083**				umhos/cm			05/11/18 11:12	1
Temperature, Field (C)	**13.4**				Degrees C			05/11/18 11:12	1
Turbidity, Field	**1.8**				NTU			05/11/18 11:12	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: Trip Blank
Date Collected: 05/11/18 09:00
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1-Dichloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,1-Dichloroethene	ND		1.0		ug/L			05/22/18 22:14	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/22/18 22:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/22/18 22:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/22/18 22:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/22/18 22:14	1
1,2-Dichloroethane	ND		1.0		ug/L			05/22/18 22:14	1
1,2-Dichloropropane	ND		1.0		ug/L			05/22/18 22:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/22/18 22:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/22/18 22:14	1
2-Butanone (MEK)	ND	*	5.0		ug/L			05/22/18 22:14	1
2-Hexanone	ND	*	5.0		ug/L			05/22/18 22:14	1
4-Methyl-2-pentanone (MIBK)	ND	*	5.0		ug/L			05/22/18 22:14	1
Acetone	ND		5.0		ug/L			05/22/18 22:14	1
Acetonitrile	ND		10		ug/L			05/22/18 22:14	1
Benzene	ND		1.0		ug/L			05/22/18 22:14	1
Bromoform	ND	*	1.0		ug/L			05/22/18 22:14	1
Bromomethane	ND		1.0		ug/L			05/22/18 22:14	1
Carbon disulfide	ND		1.0		ug/L			05/22/18 22:14	1
Carbon tetrachloride	ND		1.0		ug/L			05/22/18 22:14	1
Chlorobenzene	ND		1.0		ug/L			05/22/18 22:14	1
Bromochloromethane	ND		1.0		ug/L			05/22/18 22:14	1
Dibromochloromethane	ND		1.0		ug/L			05/22/18 22:14	1
Chloroethane	ND		1.0		ug/L			05/22/18 22:14	1
Chloroform	ND		1.0		ug/L			05/22/18 22:14	1
Chloromethane	ND		1.0		ug/L			05/22/18 22:14	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 22:14	1
Cyclohexane	ND		1.0		ug/L			05/22/18 22:14	1
Dibromomethane	ND		1.0		ug/L			05/22/18 22:14	1
Bromodichloromethane	ND		1.0		ug/L			05/22/18 22:14	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/22/18 22:14	1
Ethylbenzene	ND		1.0		ug/L			05/22/18 22:14	1
1,2-Dibromoethane	ND		1.0		ug/L			05/22/18 22:14	1
Iodomethane	ND		1.0		ug/L			05/22/18 22:14	1
Isopropylbenzene	ND		1.0		ug/L			05/22/18 22:14	1
Methyl acetate	ND		5.0		ug/L			05/22/18 22:14	1
Methylcyclohexane	ND		1.0		ug/L			05/22/18 22:14	1
Methylene Chloride	ND		1.0		ug/L			05/22/18 22:14	1
m,p-Xylene	ND		1.0		ug/L			05/22/18 22:14	1
o-Xylene	ND		1.0		ug/L			05/22/18 22:14	1
Tetrachloroethene	ND		1.0		ug/L			05/22/18 22:14	1
Toluene	ND		1.0		ug/L			05/22/18 22:14	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 22:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 22:14	1

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: Trip Blank
Date Collected: 05/11/18 09:00
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/22/18 22:14	1
Trichloroethene	ND		1.0		ug/L			05/22/18 22:14	1
Trichlorofluoromethane	ND		1.0		ug/L			05/22/18 22:14	1
Vinyl acetate	ND		2.0		ug/L			05/22/18 22:14	1
Vinyl chloride	ND		1.0		ug/L			05/22/18 22:14	1
Xylenes, Total	ND		2.0		ug/L			05/22/18 22:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 22:14	1
Styrene	ND		1.0		ug/L			05/22/18 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*05/22/18 22:14*	*1*
4-Bromofluorobenzene	*104*		*77 - 124*		*05/22/18 22:14*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/22/18 22:14*	*1*
Dibromofluoromethane (Surr)	*106*		*72 - 131*		*05/22/18 22:14*	*1*

Surrogate Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(74-132)	(77-124)	(80-120)	(72-131)
480-135797-1	BR-1	98	99	99	104
480-135797-2	MW-3R	96	98	97	101
480-135797-3	MW-12	99	98	100	102
480-135797-4	MW-14N	99	101	99	102
480-135797-5	MW-5R	96	101	97	103
480-135797-6	Leachate	99	101	99	103
480-135797-7	Trip Blank	99	104	98	106
LCS 460-521544/4	Lab Control Sample	94	101	98	100
LCSD 460-521544/5	Lab Control Sample Dup	94	100	98	101
MB 460-521544/8	Method Blank	99	100	97	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-521544/8
Matrix: Water
Analysis Batch: 521544

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1-Dichloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,1-Dichloroethene	ND		1.0		ug/L			05/22/18 21:50	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/22/18 21:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/22/18 21:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/22/18 21:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/22/18 21:50	1
1,2-Dichloroethane	ND		1.0		ug/L			05/22/18 21:50	1
1,2-Dichloropropane	ND		1.0		ug/L			05/22/18 21:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/22/18 21:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/22/18 21:50	1
2-Butanone (MEK)	ND		5.0		ug/L			05/22/18 21:50	1
2-Hexanone	ND		5.0		ug/L			05/22/18 21:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/22/18 21:50	1
Acetone	ND		5.0		ug/L			05/22/18 21:50	1
Acetonitrile	ND		10		ug/L			05/22/18 21:50	1
Benzene	ND		1.0		ug/L			05/22/18 21:50	1
Bromoform	ND		1.0		ug/L			05/22/18 21:50	1
Bromomethane	ND		1.0		ug/L			05/22/18 21:50	1
Carbon disulfide	ND		1.0		ug/L			05/22/18 21:50	1
Carbon tetrachloride	ND		1.0		ug/L			05/22/18 21:50	1
Chlorobenzene	ND		1.0		ug/L			05/22/18 21:50	1
Bromochloromethane	ND		1.0		ug/L			05/22/18 21:50	1
Dibromochloromethane	ND		1.0		ug/L			05/22/18 21:50	1
Chloroethane	ND		1.0		ug/L			05/22/18 21:50	1
Chloroform	ND		1.0		ug/L			05/22/18 21:50	1
Chloromethane	ND		1.0		ug/L			05/22/18 21:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 21:50	1
Cyclohexane	ND		1.0		ug/L			05/22/18 21:50	1
Dibromomethane	ND		1.0		ug/L			05/22/18 21:50	1
Bromodichloromethane	ND		1.0		ug/L			05/22/18 21:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/22/18 21:50	1
Ethylbenzene	ND		1.0		ug/L			05/22/18 21:50	1
1,2-Dibromoethane	ND		1.0		ug/L			05/22/18 21:50	1
Iodomethane	ND		1.0		ug/L			05/22/18 21:50	1
Isopropylbenzene	ND		1.0		ug/L			05/22/18 21:50	1
Methyl acetate	ND		5.0		ug/L			05/22/18 21:50	1
Methylcyclohexane	ND		1.0		ug/L			05/22/18 21:50	1
Methylene Chloride	ND		1.0		ug/L			05/22/18 21:50	1
m,p-Xylene	ND		1.0		ug/L			05/22/18 21:50	1
o-Xylene	ND		1.0		ug/L			05/22/18 21:50	1
Tetrachloroethene	ND		1.0		ug/L			05/22/18 21:50	1
Toluene	ND		1.0		ug/L			05/22/18 21:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/22/18 21:50	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-521544/8
Matrix: Water
Analysis Batch: 521544

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 21:50	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/22/18 21:50	1
Trichloroethene	ND		1.0		ug/L			05/22/18 21:50	1
Trichlorofluoromethane	ND		1.0		ug/L			05/22/18 21:50	1
Vinyl acetate	ND		2.0		ug/L			05/22/18 21:50	1
Vinyl chloride	ND		1.0		ug/L			05/22/18 21:50	1
Xylenes, Total	ND		2.0		ug/L			05/22/18 21:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/22/18 21:50	1
Styrene	ND		1.0		ug/L			05/22/18 21:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*05/22/18 21:50*	*1*
4-Bromofluorobenzene	*100*		*77 - 124*		*05/22/18 21:50*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/22/18 21:50*	*1*
Dibromofluoromethane (Surr)	*105*		*72 - 131*		*05/22/18 21:50*	*1*

Lab Sample ID: LCS 460-521544/4
Matrix: Water
Analysis Batch: 521544

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	22.0		ug/L		110	77 - 120
1,1,1-Trichloroethane	20.0	22.7		ug/L		113	75 - 125
1,1,2,2-Tetrachloroethane	20.0	21.4		ug/L		107	74 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	24.1		ug/L		120	59 - 150
1,1,2-Trichloroethane	20.0	21.7		ug/L		109	78 - 120
1,1-Dichloroethane	20.0	22.0		ug/L		110	77 - 123
1,1-Dichloroethene	20.0	22.2		ug/L		111	74 - 123
1,2,3-Trichloropropane	20.0	20.4		ug/L		102	76 - 120
1,2,4-Trichlorobenzene	20.0	21.3		ug/L		106	80 - 124
1,2-Dibromo-3-Chloropropane	20.0	21.4		ug/L		107	55 - 134
1,2-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120
1,2-Dichloroethane	20.0	20.0		ug/L		100	76 - 121
1,2-Dichloropropane	20.0	22.3		ug/L		111	77 - 123
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 120
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 120
2-Butanone (MEK)	100	130	*	ug/L		130	64 - 120
2-Hexanone	100	138	*	ug/L		138	71 - 125
4-Methyl-2-pentanone (MIBK)	100	138	*	ug/L		138	78 - 124
Acetone	100	121		ug/L		121	39 - 150
Acetonitrile	200	203		ug/L		102	37 - 150
Benzene	20.0	21.5		ug/L		108	77 - 121
Bromoform	20.0	24.3	*	ug/L		122	53 - 120
Bromomethane	20.0	18.3		ug/L		91	10 - 150
Carbon disulfide	20.0	21.7		ug/L		108	69 - 133
Carbon tetrachloride	20.0	24.0		ug/L		120	70 - 132
Chlorobenzene	20.0	21.7		ug/L		108	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-521544/4
Matrix: Water
Analysis Batch: 521544

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromochloromethane	20.0	22.4		ug/L		112	77 - 127
Dibromochloromethane	20.0	22.2		ug/L		111	73 - 120
Chloroethane	20.0	20.0		ug/L		100	52 - 150
Chloroform	20.0	21.9		ug/L		110	80 - 120
Chloromethane	20.0	16.5		ug/L		83	56 - 131
cis-1,2-Dichloroethene	20.0	23.1		ug/L		116	80 - 120
Cyclohexane	20.0	23.2		ug/L		116	56 - 150
Dibromomethane	20.0	21.8		ug/L		109	79 - 120
Bromodichloromethane	20.0	21.4		ug/L		107	76 - 120
Dichlorodifluoromethane	20.0	17.5		ug/L		88	50 - 131
Ethylbenzene	20.0	21.6		ug/L		108	80 - 120
1,2-Dibromoethane	20.0	21.3		ug/L		106	80 - 120
Iodomethane	20.0	23.1		ug/L		115	10 - 147
Isopropylbenzene	20.0	22.4		ug/L		112	80 - 123
Methyl acetate	40.0	42.2		ug/L		105	66 - 144
Methylcyclohexane	20.0	24.1		ug/L		121	61 - 145
Methylene Chloride	20.0	20.0		ug/L		100	77 - 123
m,p-Xylene	20.0	22.1		ug/L		110	80 - 120
o-Xylene	20.0	21.4		ug/L		107	80 - 120
Tetrachloroethene	20.0	22.2		ug/L		111	78 - 122
Toluene	20.0	21.6		ug/L		108	80 - 120
trans-1,2-Dichloroethene	20.0	22.6		ug/L		113	79 - 120
trans-1,3-Dichloropropene	20.0	19.4		ug/L		97	76 - 120
trans-1,4-Dichloro-2-butene	20.0	19.7		ug/L		98	61 - 122
Trichloroethene	20.0	21.0		ug/L		105	77 - 120
Trichlorofluoromethane	20.0	22.0		ug/L		110	71 - 143
Vinyl acetate	40.0	41.7		ug/L		104	10 - 150
Vinyl chloride	20.0	17.4		ug/L		87	62 - 138
cis-1,3-Dichloropropene	20.0	20.3		ug/L		102	77 - 120
Styrene	20.0	21.7		ug/L		109	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*74 - 132*
4-Bromofluorobenzene	*101*		*77 - 124*
Toluene-d8 (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*72 - 131*

Lab Sample ID: LCSD 460-521544/5
Matrix: Water
Analysis Batch: 521544

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	21.2		ug/L		106	77 - 120	4	30
1,1,1-Trichloroethane	20.0	22.5		ug/L		113	75 - 125	1	30
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	74 - 120	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	24.2		ug/L		121	59 - 150	1	30
1,1,2-Trichloroethane	20.0	21.6		ug/L		108	78 - 120	0	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-521544/5
Matrix: Water
Analysis Batch: 521544

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	20.0	22.2		ug/L		111	77 - 123	1	30
1,1-Dichloroethene	20.0	22.1		ug/L		110	74 - 123	1	30
1,2,3-Trichloropropane	20.0	20.8		ug/L		104	76 - 120	2	30
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	80 - 124	0	30
1,2-Dibromo-3-Chloropropane	20.0	19.0		ug/L		95	55 - 134	12	30
1,2-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120	0	30
1,2-Dichloroethane	20.0	19.3		ug/L		96	76 - 121	4	30
1,2-Dichloropropane	20.0	21.4		ug/L		107	77 - 123	4	30
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 120	0	30
1,4-Dichlorobenzene	20.0	21.5		ug/L		107	80 - 120	1	30
2-Butanone (MEK)	100	128	*	ug/L		128	64 - 120	1	30
2-Hexanone	100	143	*	ug/L		143	71 - 125	3	30
4-Methyl-2-pentanone (MIBK)	100	138	*	ug/L		138	78 - 124	0	30
Acetone	100	133		ug/L		133	39 - 150	10	30
Acetonitrile	200	182		ug/L		91	37 - 150	11	30
Benzene	20.0	20.5		ug/L		103	77 - 121	5	30
Bromoform	20.0	22.6		ug/L		113	53 - 120	7	30
Bromomethane	20.0	19.0		ug/L		95	10 - 150	4	30
Carbon disulfide	20.0	21.3		ug/L		106	69 - 133	2	30
Carbon tetrachloride	20.0	23.9		ug/L		119	70 - 132	0	30
Chlorobenzene	20.0	21.5		ug/L		108	80 - 120	1	30
Bromochloromethane	20.0	21.5		ug/L		107	77 - 127	4	30
Dibromochloromethane	20.0	21.9		ug/L		109	73 - 120	2	30
Chloroethane	20.0	19.7		ug/L		99	52 - 150	1	30
Chloroform	20.0	21.7		ug/L		108	80 - 120	1	30
Chloromethane	20.0	16.7		ug/L		84	56 - 131	1	30
cis-1,2-Dichloroethene	20.0	22.3		ug/L		111	80 - 120	4	30
Cyclohexane	20.0	23.7		ug/L		118	56 - 150	2	30
Dibromomethane	20.0	21.6		ug/L		108	79 - 120	1	30
Bromodichloromethane	20.0	21.3		ug/L		107	76 - 120	0	30
Dichlorodifluoromethane	20.0	17.7		ug/L		88	50 - 131	1	30
Ethylbenzene	20.0	21.6		ug/L		108	80 - 120	0	30
1,2-Dibromoethane	20.0	20.2		ug/L		101	80 - 120	5	30
Iodomethane	20.0	22.5		ug/L		112	10 - 147	3	30
Isopropylbenzene	20.0	21.9		ug/L		109	80 - 123	2	30
Methyl acetate	40.0	42.4		ug/L		106	66 - 144	0	30
Methylcyclohexane	20.0	22.8		ug/L		114	61 - 145	5	30
Methylene Chloride	20.0	20.7		ug/L		103	77 - 123	3	30
m,p-Xylene	20.0	22.3		ug/L		111	80 - 120	1	30
o-Xylene	20.0	21.3		ug/L		107	80 - 120	0	30
Tetrachloroethene	20.0	21.1		ug/L		105	78 - 122	5	30
Toluene	20.0	21.1		ug/L		105	80 - 120	2	30
trans-1,2-Dichloroethene	20.0	22.5		ug/L		112	79 - 120	1	30
trans-1,3-Dichloropropene	20.0	18.9		ug/L		94	76 - 120	3	30
trans-1,4-Dichloro-2-butene	20.0	18.9		ug/L		95	61 - 122	4	30
Trichloroethene	20.0	21.1		ug/L		105	77 - 120	1	30
Trichlorofluoromethane	20.0	21.8		ug/L		109	71 - 143	1	30
Vinyl acetate	40.0	38.5		ug/L		96	10 - 150	8	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-521544/5
Matrix: Water
Analysis Batch: 521544

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride			20.0	18.0		ug/L		90	62 - 138	4	30
cis-1,3-Dichloropropene			20.0	19.3		ug/L		96	77 - 120	5	30
Styrene			20.0	20.8		ug/L		104	80 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*74 - 132*
4-Bromofluorobenzene	*100*		*77 - 124*
Toluene-d8 (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*72 - 131*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-414475/1-A
Matrix: Water
Analysis Batch: 415952

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 414475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50		mg/L		05/16/18 09:38	05/23/18 01:48	1

Lab Sample ID: LCS 480-414475/2-A
Matrix: Water
Analysis Batch: 415952

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 414475

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium			10.0	9.68		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-415395/1-A
Matrix: Water
Analysis Batch: 415591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/21/18 11:35	05/21/18 14:07	1

Lab Sample ID: LCS 480-415395/2-A
Matrix: Water
Analysis Batch: 415591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415395

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.00667	0.00645		mg/L		97	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-414163/4
Matrix: Water
Analysis Batch: 414163

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/14/18 13:27	1
Chloride	ND		0.50		mg/L			05/14/18 13:27	1
Sulfate	ND		2.0		mg/L			05/14/18 13:27	1

Lab Sample ID: LCS 480-414163/3
Matrix: Water
Analysis Batch: 414163

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.98		mg/L		100	90 - 110
Chloride	50.0	50.40		mg/L		101	90 - 110
Sulfate	50.0	51.51		mg/L		103	90 - 110

Lab Sample ID: 480-135797-4 MS
Matrix: Water
Analysis Batch: 414163

Client Sample ID: MW-14N
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		25.0	25.72		mg/L		103	80 - 120
Chloride	175		250	431.9		mg/L		103	81 - 120
Sulfate	237		250	483.9		mg/L		99	80 - 120

Lab Sample ID: 480-135797-4 MSD
Matrix: Water
Analysis Batch: 414163

Client Sample ID: MW-14N
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		25.0	26.08		mg/L		104	80 - 120	1	20
Chloride	175		250	423.1		mg/L		99	81 - 120	2	20
Sulfate	237		250	483.7		mg/L		99	80 - 120	0	20

Method: 410.4 - COD

Lab Sample ID: MB 460-520751/3
Matrix: Water
Analysis Batch: 520751

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/19/18 18:57	1

Lab Sample ID: LCSSRM 460-520751/4
Matrix: Water
Analysis Batch: 520751

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

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	86.5	81.42		mg/L		94.1	80.3 - 116.2

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 460-520078/1
Matrix: Water
Analysis Batch: 520078

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/17/18 17:17	1

Lab Sample ID: LCSSRM 460-520078/2
Matrix: Water
Analysis Batch: 520078

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			746	713.0		mg/L		95.6	89.9 - 110.1		

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 480-414058/3
Matrix: Water
Analysis Batch: 414058

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			05/12/18 08:39	1

Lab Sample ID: LCS 480-414058/4
Matrix: Water
Analysis Batch: 414058

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent			0.0500	0.0496		mg/L		99	85 - 115		

Lab Sample ID: 480-135797-2 MS
Matrix: Water
Analysis Batch: 414058

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium, hexavalent	ND		0.0500	0.0532		mg/L		106	85 - 115		

Lab Sample ID: 480-135797-1 DU
Matrix: Water
Analysis Batch: 414058

Client Sample ID: BR-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L				NC	15

Method: SM 5310C - TOC

Lab Sample ID: MB 480-416077/51
Matrix: Water
Analysis Batch: 416077

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/23/18 07:50	1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MB 480-416077/75
Matrix: Water
Analysis Batch: 416077

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/23/18 13:52	1

Lab Sample ID: LCS 480-416077/52
Matrix: Water
Analysis Batch: 416077

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			60.0	59.53		mg/L		99	90 - 110		

Lab Sample ID: LCS 480-416077/76
Matrix: Water
Analysis Batch: 416077

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			60.0	60.08		mg/L		100	90 - 110		

Lab Sample ID: 480-135797-3 MS
Matrix: Water
Analysis Batch: 416077

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	2.4		50.0	51.20		mg/L		98	54 - 131		

Lab Sample ID: 480-135797-3 MSD
Matrix: Water
Analysis Batch: 416077

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	2.4		50.0	49.88		mg/L		95	54 - 131	3	20

QC Association Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

GC/MS VOA

Analysis Batch: 521544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	8260C	
480-135797-2	MW-3R	Total/NA	Water	8260C	
480-135797-3	MW-12	Total/NA	Water	8260C	
480-135797-4	MW-14N	Total/NA	Water	8260C	
480-135797-5	MW-5R	Total/NA	Water	8260C	
480-135797-6	Leachate	Total/NA	Water	8260C	
480-135797-7	Trip Blank	Total/NA	Water	8260C	
MB 460-521544/8	Method Blank	Total/NA	Water	8260C	
LCS 460-521544/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-521544/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 414475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	3005A	
480-135797-2	MW-3R	Total/NA	Water	3005A	
480-135797-3	MW-12	Total/NA	Water	3005A	
480-135797-4	MW-14N	Total/NA	Water	3005A	
480-135797-5	MW-5R	Total/NA	Water	3005A	
480-135797-6	Leachate	Total/NA	Water	3005A	
MB 480-414475/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-414475/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 415395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	7470A	
480-135797-2	MW-3R	Total/NA	Water	7470A	
480-135797-3	MW-12	Total/NA	Water	7470A	
480-135797-4	MW-14N	Total/NA	Water	7470A	
480-135797-5	MW-5R	Total/NA	Water	7470A	
480-135797-6	Leachate	Total/NA	Water	7470A	
MB 480-415395/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-415395/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 415591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	7470A	415395
480-135797-2	MW-3R	Total/NA	Water	7470A	415395
480-135797-3	MW-12	Total/NA	Water	7470A	415395
480-135797-4	MW-14N	Total/NA	Water	7470A	415395
480-135797-5	MW-5R	Total/NA	Water	7470A	415395
480-135797-6	Leachate	Total/NA	Water	7470A	415395
MB 480-415395/1-A	Method Blank	Total/NA	Water	7470A	415395
LCS 480-415395/2-A	Lab Control Sample	Total/NA	Water	7470A	415395

Analysis Batch: 415952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-414475/1-A	Method Blank	Total/NA	Water	6010C	414475
LCS 480-414475/2-A	Lab Control Sample	Total/NA	Water	6010C	414475

Metals (Continued)

Analysis Batch: 417052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	6010C	414475
480-135797-2	MW-3R	Total/NA	Water	6010C	414475
480-135797-3	MW-12	Total/NA	Water	6010C	414475
480-135797-4	MW-14N	Total/NA	Water	6010C	414475
480-135797-5	MW-5R	Total/NA	Water	6010C	414475
480-135797-6	Leachate	Total/NA	Water	6010C	414475

General Chemistry

Analysis Batch: 414058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	SM 3500 CR B	
480-135797-2	MW-3R	Total/NA	Water	SM 3500 CR B	
480-135797-3	MW-12	Total/NA	Water	SM 3500 CR B	
480-135797-4	MW-14N	Total/NA	Water	SM 3500 CR B	
480-135797-5	MW-5R	Total/NA	Water	SM 3500 CR B	
480-135797-6	Leachate	Total/NA	Water	SM 3500 CR B	
MB 480-414058/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-414058/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-135797-2 MS	MW-3R	Total/NA	Water	SM 3500 CR B	
480-135797-1 DU	BR-1	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 414163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	300.0	
480-135797-2	MW-3R	Total/NA	Water	300.0	
480-135797-3	MW-12	Total/NA	Water	300.0	
480-135797-4	MW-14N	Total/NA	Water	300.0	
480-135797-5	MW-5R	Total/NA	Water	300.0	
480-135797-6	Leachate	Total/NA	Water	300.0	
MB 480-414163/4	Method Blank	Total/NA	Water	300.0	
LCS 480-414163/3	Lab Control Sample	Total/NA	Water	300.0	
480-135797-4 MS	MW-14N	Total/NA	Water	300.0	
480-135797-4 MSD	MW-14N	Total/NA	Water	300.0	

Analysis Batch: 416077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	SM 5310C	
480-135797-2	MW-3R	Total/NA	Water	SM 5310C	
480-135797-3	MW-12	Total/NA	Water	SM 5310C	
480-135797-4	MW-14N	Total/NA	Water	SM 5310C	
480-135797-5	MW-5R	Total/NA	Water	SM 5310C	
480-135797-6	Leachate	Total/NA	Water	SM 5310C	
MB 480-416077/51	Method Blank	Total/NA	Water	SM 5310C	
MB 480-416077/75	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-416077/52	Lab Control Sample	Total/NA	Water	SM 5310C	
LCS 480-416077/76	Lab Control Sample	Total/NA	Water	SM 5310C	
480-135797-3 MS	MW-12	Total/NA	Water	SM 5310C	
480-135797-3 MSD	MW-12	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 520078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	SM 2540C	
480-135797-2	MW-3R	Total/NA	Water	SM 2540C	
480-135797-3	MW-12	Total/NA	Water	SM 2540C	
480-135797-4	MW-14N	Total/NA	Water	SM 2540C	
480-135797-5	MW-5R	Total/NA	Water	SM 2540C	
480-135797-6	Leachate	Total/NA	Water	SM 2540C	
MB 460-520078/1	Method Blank	Total/NA	Water	SM 2540C	
LCSSRM 460-520078/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 520751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	410.4	
480-135797-2	MW-3R	Total/NA	Water	410.4	
480-135797-3	MW-12	Total/NA	Water	410.4	
480-135797-4	MW-14N	Total/NA	Water	410.4	
480-135797-5	MW-5R	Total/NA	Water	410.4	
480-135797-6	Leachate	Total/NA	Water	410.4	
MB 460-520751/3	Method Blank	Total/NA	Water	410.4	
LCSSRM 460-520751/4	Lab Control Sample	Total/NA	Water	410.4	

Field Service / Mobile Lab

Analysis Batch: 415194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135797-1	BR-1	Total/NA	Water	Field Sampling	
480-135797-2	MW-3R	Total/NA	Water	Field Sampling	
480-135797-3	MW-12	Total/NA	Water	Field Sampling	
480-135797-4	MW-14N	Total/NA	Water	Field Sampling	
480-135797-5	MW-5R	Total/NA	Water	Field Sampling	
480-135797-6	Leachate	Total/NA	Water	Field Sampling	

Client Sample ID: BR-1

Lab Sample ID: 480-135797-1

Date Collected: 05/11/18 13:32

Matrix: Water

Date Received: 05/12/18 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/22/18 23:24	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:15	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:33	BMB	TAL BUF
Total/NA	Analysis	300.0		1	414163	05/14/18 14:11	RJS	TAL BUF
Total/NA	Analysis	410.4		10	520751	05/19/18 18:57	HTV	TAL EDI
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 12:51	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 13:32	FLD	TAL BUF

Client Sample ID: MW-3R

Lab Sample ID: 480-135797-2

Date Collected: 05/11/18 10:48

Matrix: Water

Date Received: 05/12/18 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/22/18 23:48	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:18	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:35	BMB	TAL BUF
Total/NA	Analysis	300.0		5	414163	05/14/18 14:25	RJS	TAL BUF
Total/NA	Analysis	410.4		1	520751	05/19/18 18:57	HTV	TAL EDI
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 13:06	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 10:48	FLD	TAL BUF

Client Sample ID: MW-12

Lab Sample ID: 480-135797-3

Date Collected: 05/11/18 09:37

Matrix: Water

Date Received: 05/12/18 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/23/18 00:11	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:22	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:36	BMB	TAL BUF
Total/NA	Analysis	300.0		5	414163	05/14/18 14:40	RJS	TAL BUF
Total/NA	Analysis	410.4		1	520751	05/19/18 18:57	HTV	TAL EDI

Lab Chronicle

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: MW-12

Date Collected: 05/11/18 09:37
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 14:23	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 09:37	FLD	TAL BUF

Client Sample ID: MW-14N

Date Collected: 05/11/18 12:40
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/23/18 00:35	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:26	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:38	BMB	TAL BUF
Total/NA	Analysis	300.0		5	414163	05/14/18 14:55	RJS	TAL BUF
Total/NA	Analysis	410.4		1	520751	05/19/18 18:57	HTV	TAL EDI
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 15:09	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 12:40	FLD	TAL BUF

Client Sample ID: MW-5R

Date Collected: 05/11/18 11:42
Date Received: 05/12/18 00:30

Lab Sample ID: 480-135797-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/23/18 00:59	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:30	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:40	BMB	TAL BUF
Total/NA	Analysis	300.0		5	414163	05/14/18 16:08	RJS	TAL BUF
Total/NA	Analysis	410.4		1	520751	05/19/18 18:57	HTV	TAL EDI
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 15:24	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 11:42	FLD	TAL BUF

Lab Chronicle

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Client Sample ID: Leachate

Lab Sample ID: 480-135797-6

Date Collected: 05/11/18 11:12
Matrix: Water
Date Received: 05/12/18 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/23/18 01:22	XXC	TAL EDI
Total/NA	Prep	3005A			414475	05/16/18 09:38	JAK	TAL BUF
Total/NA	Analysis	6010C		1	417052	05/22/18 03:34	LMH	TAL BUF
Total/NA	Prep	7470A			415395	05/21/18 11:35	BMB	TAL BUF
Total/NA	Analysis	7470A		1	415591	05/21/18 14:41	BMB	TAL BUF
Total/NA	Analysis	300.0		5	414163	05/14/18 16:22	RJS	TAL BUF
Total/NA	Analysis	410.4		1	520751	05/19/18 18:57	HTV	TAL EDI
Total/NA	Analysis	SM 2540C		1	520078	05/17/18 17:17	LRW	TAL EDI
Total/NA	Analysis	SM 3500 CR B		1	414058	05/12/18 08:39	AED	TAL BUF
Total/NA	Analysis	SM 5310C		1	416077	05/23/18 15:40	SMH	TAL BUF
Total/NA	Analysis	Field Sampling		1	415194	05/11/18 11:12	FLD	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-135797-7

Date Collected: 05/11/18 09:00
Matrix: Water
Date Received: 05/12/18 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	521544	05/22/18 22:14	XXC	TAL EDI

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18 *

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field EH/ORP
Field Sampling		Water	pH, Field
Field Sampling		Water	Specific Conductance
Field Sampling		Water	Temperature, Field (C)
Field Sampling		Water	Turbidity, Field

Laboratory: TestAmerica Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19

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

Method Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
410.4	COD	MCAWW	TAL EDI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL EDI
SM 3500 CR B	Chromium, Hexavalent	SM	TAL BUF
SM 5310C	TOC	SM	TAL BUF
Field Sampling	Field Sampling	EPA	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: LAN Associates
Project/Site: Witmer Road G/W

TestAmerica Job ID: 480-135797-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-135797-1	BR-1	Water	05/11/18 13:32	05/12/18 00:30
480-135797-2	MW-3R	Water	05/11/18 10:48	05/12/18 00:30
480-135797-3	MW-12	Water	05/11/18 09:37	05/12/18 00:30
480-135797-4	MW-14N	Water	05/11/18 12:40	05/12/18 00:30
480-135797-5	MW-5R	Water	05/11/18 11:42	05/12/18 00:30
480-135797-6	Leachate	Water	05/11/18 11:12	05/12/18 00:30
480-135797-7	Trip Blank	Water	05/11/18 09:00	05/12/18 00:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

480-135797 COC

Client Information	Sampler: EB/TB	Lab PM: Stone, Judy L	Carrier	COC No: 480-112128-16534.1
Client Contact: Gary Joiner	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:
Address: PO BOX 217	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Calvert City	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: KY, 42029				
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required			
Email: gjoiner@ccmetals.com	WO #:			Other:
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	SM5310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)						Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	A	N	N	N							
BR-1	5-11-18	1332	G	Water			1	1	1	2	3	1	-	1						10	
MW-3R		1048		Water			1	1	1	2	3	1	-	1						10	
MW-12		0937		Water			1	1	1	2	3	1	-	1						10	
MW-14N		1240		Water			1	1	1	2	3	1	-	1						10	
MW-5R		1142		Water			1	1	1	2	3	1	-	1						10	
Leachate		1112		Water			1	1	1	2	3	1	-	1						10	
SW-1	5-11-18	—	G	Water									-							→	DRY - NOT SAMPLED
Trip Blank	5-11-18	0900	G								2									2	

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5-11-18 1433	TAL	[signature]	5-12-18 0030	TAL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: NO ICE 15.2 #1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2018

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-42243.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-135797-1
Address: 777 New Durham Road, ,	Due Date Requested: 5/23/2018			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C	8260C/5030C (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
BR-1 (480-135797-1)	5/11/18	13:32 Eastern		Water			X	X	3	
MW-3R (480-135797-2)	5/11/18	10:48 Eastern		Water			X	X	3	
MW-12 (480-135797-3)	5/11/18	09:37 Eastern		Water			X	X	3	
MW-14N (480-135797-4)	5/11/18	12:40 Eastern		Water			X	X	3	
MW-5R (480-135797-5)	5/11/18	11:42 Eastern		Water			X	X	3	
Leachate (480-135797-6)	5/11/18	11:12 Eastern		Water			X	X	3	
Trip Blank (480-135797-7)	5/11/18	09:00 Eastern		Water				X	2	

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

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5/14/18 1510	[illegible]	[signature] via FedEx	5/15/18 0910	TAEdi
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: NC CS	Cooler Temperature(s) °C and Other Remarks: 4.2°C IR11

Ver: 09/20/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2018

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-42246.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-135797-1
Address: 777 New Durham Road,	Due Date Requested: 5/23/2018			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C	8260C/5030C (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
BR-1 (480-135797-1)	5/11/18	13:32 Eastern		Water			X	X	1	
MW-3R (480-135797-2)	5/11/18	10:48 Eastern		Water			X	X	1	
MW-12 (480-135797-3)	5/11/18	09:37 Eastern		Water			X	X	1	
MW-14N (480-135797-4)	5/11/18	12:40 Eastern		Water			X	X	1	
MW-5R (480-135797-5)	5/11/18	11:42 Eastern		Water			X	X	1	
Leachate (480-135797-6)	5/11/18	11:12 Eastern		Water			X	X	1	

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

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5/14/18 1630	[illegible]	[signature] via FedEx	5/15/18 0910	TAEdi
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 10 CS	Cooler Temperature(s) °C and Other Remarks: 4.2°C IR11

Ver: 09/20/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-42306.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-135797-1
Address: 777 New Durham Road, ,	Due Date Requested: 5/23/2018			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	410.4	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
BR-1 (480-135797-1)	5/11/18	13:32 Eastern		Water			X	1	
MW-3R (480-135797-2)	5/11/18	10:48 Eastern		Water			X	1	
MW-12 (480-135797-3)	5/11/18	09:37 Eastern		Water			X	1	
MW-14N (480-135797-4)	5/11/18	12:40 Eastern		Water			X	1	
MW-5R (480-135797-5)	5/11/18	11:42 Eastern		Water			X	1	
Leachate (480-135797-6)	5/11/18	11:12 Eastern		Water			X	1	

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

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

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 5/17/18 1500	Company	Received by: via FedEx	Date/Time: 5/18/18 0910	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: NG CS	Cooler Temperature(s) °C and Other Remarks: 1.0°C IR11

Ver: 09/20/2016

5/30/2018

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FIELD OBSERVATIONS

Facility: CCMA Wetmer Rd Sample Point ID: RR-1

Field Personnel: EB/TB Sample Matrix: GW

MONITORING WELL INFORMATION

Date/Time 5-10-18 / 1257 Cond of seal: (A) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (A) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION

Date / Time initiated: 5-10-18/ 1257 Date / Time Completed: 5-10-18/

Surf. Meas. Pt: ( ) Prot. Casing (A) Riser Riser Diameter, inches: 2.0

Initial Water Level, Feet: 10.43 Elevation. G/W MSL:

Well Total Depth, Feet: 39.92 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: Purged To Dryness Y / (N)

Purge Observations: Low flow Start clear Finish clear

PURGE DATA (CONTINUED)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
1322	WL 10.83	ml/min 200		10.7	7.83	565	1.68	19	
1327	10.83	↓		10.9	7.80	563	1.69	12	
1332	10.83	↓		10.4	7.81	565	1.67	13	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID BR-1

Date/Time 5-16-18 1332 **Water Level @ Sampling, Feet:** 10.83

Method of Sampling: Peristaltic **Dedicated:** (Y) / N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1332	10.4	7.81	565	1.67	13	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50°F Cloudy

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 5/11/18 **By:** [signature] **Company:** TAL

FIELD OBSERVATIONS

Facility: CCMA Wetmer Rd

Sample Point ID: MW-3R

Field Personnel: EB/TB

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5-16-18 / 1023

Cond of seal: (✓) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked (✓) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / —

% LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 5-16-18/ 1023

Date / Time Completed: 5-16-18/1048

Surf. Meas. Pt: ( ) Prot. Casing (✓)Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 2.06

Elevation. G/W MSL.:

Well Total Depth, Feet: 12.05

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal:

Dedicated: (Y) / N

Total Volume Purged, Gal:

Purged To Dryness Y / (N)

Purge Observations: Low flow

Start clear Finish Clear

PURGE DATA/PARAMETERS

Time	Purge Rate (gpm/htz) wl	Purge Rate (gpm/htz) ml/min	Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
1033	2.65	150		9.6	7.76	1319	1.8	109	
1038	2.73	↓		10.2	7.70	1314	1.1	129	
1043	2.78	↓		11.1	7.51	1303	1.2	103	
1048	2.82	↓		11.1	7.70	1322	1.5	92	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-3R

Date/Time 5-11-18 1048 **Water Level @ Sampling, Feet:** 2.82

Method of Sampling: Peristaltic **Dedicated:** (Y)/N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1048	11.1	7.70	1322	1.5	92	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50°F Cloudy

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 5/11/18 **By:** [signature] **Company:** TAL

FIELD OBSERVATIONS

Facility: CCMA Wetmer Rd Sample Point ID: MW-5R

Field Personnel: EB/TB Sample Matrix: GW

MONITORING

Date/Time 5-16-18 / 1108 Cond of seal: (Y) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (Y) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION

Date / Time Initiated: 5-16-18/ 1108 Date / Time Completed: 5-16-18/ 1142

Surf. Meas. Pt: ( ) Prot. Casing (Y) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 5.51 Elevation. G/W MSL:

Well Total Depth, Feet: 19.74 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: Purged To Dryness Y / (N)

Purge Observations: Low Flow Start clear Finish clear

PURGE DATA

Time	Purge Rate (ppm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other DTW
	wl	ml/min							
1127	6.90	90		11.4	8.15	914	2.1	123	6.90
1132	8.91	↓		10.2	8.48	913	2.0	76	
1137	9.12	↓		10.2	8.27	914	1.8	61	
1142	10.51	↓		10.1	8.22	920	1.5	80	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-5R

Date/Time 5-16-18 1142 **Water Level @ Sampling, Feet:** 10.19

Method of Sampling: Peristaltic **Dedicated:** (Y) / N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1142	10.1	8.22	920	1.5	80	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50°F cloudy

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 5/11/18 **By:** [signature] **Company:** TAL

Page 2 of 2

FIELD OBSERVATIONS

Facility: CCMA WETHER RD **Sample Point ID:** MW-12

Field Personnel: EB/TB **Sample Matrix:** GW

MONITORING

Date/Time 5-11-18 / 0918 **Cond of seal:** (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: ____ **Cond of prot. Casing/riser:** ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: ____

Gas Meter (Calibration/ Reading): **% Gas:** / **% LEL:** /

Vol. Organic Meter (Calibration/Reading): **Volatiles (ppm)** /

PURGE INFORMATION

Date / Time Initiated: 5-11-18 / 0918 **Date / Time Completed:** 5-11-18 / 0937

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser **Riser Diameter, inches:** 4.0

Initial Water Level, Feet: 8.22 **Elevation. G/W MSL:** ____

Well Total Depth, Feet: 19.65 **Method of Well Purge:** Peristaltic Pump

One (1) Riser Volume, Gal: ____ **Dedicated:** (Y) / N

Total Volume Purged, Gal: ____ **Purged To Dryness** Y / (N)

Purge Observations: Low Flow **Start** clear **Finish** clear

PURGE DATA / PARAMETERS

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
	wt.	Mf/min							
0927	8.29	130		10.8	7.63	1208	2.3	101	
0932	8.33	↓		10.7	7.65	1216	2.1	95	
0937	8.34	↓		10.7	7.71	1218	1.8	92	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-12

Date/Time 5-11-18 / 0937 **Water Level @ Sampling, Feet:** 8.34

Method of Sampling: ~~Bail~~ Peristaltic **Dedicated:** (Y)N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
0937	10.7	7.71	1218	1.8	92	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50°F Cloudy

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

Sampled @ 0937

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 5/11/18 **By:** [signature] **Company:** TAL

FIELD OBSERVATIONS

Facility: CCMA Wetmer Rd **Sample Point ID:** MW-14N

Field Personnel: EB/TB **Sample Matrix:** GW

MONITORING WELL INSPECTION:

Date/Time 5-14-18 1212 **Cond of seal:** (Y) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: — **Cond of prot. Casing/riser:** ( ) Unlocked (Y) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): **% Gas:** — / — **% LEL:** — / —

Vol. Organic Meter (Calibration/Reading): **Volatiles (ppm)** — / —

PURGE INFORMATION:

Date / Time initiated: 5-14-18/ 1212 **Date / Time Completed:** 5-14-18/ 12

Surf. Meas. Pt: ( ) Prot. Casing (Y) Riser **Riser Diameter, Inches:** 2.0

Initial Water Level, Feet: 6.89 **Elevation. G/W MSL:**

Well Total Depth, Feet: 26.50 **Method of Well Purge:** Peristaltic Pump

One (1) Riser Volume, Gal: **Dedicated:** (Y) / N

Total Volume Purged, Gal: **Purged To Dryness** Y / (N)

Purge Observations: Low flow **Start** clear **Finish** clear

PURGED WATER PARAMETERS:

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other ORP	Other
1230	wl 6.89	ml/min 200		10.9	7.34	1590	2.3	39	
1235	6.89	↓		11.2	7.31	1588	2.1	41	
1240	6.89	↓		11.8	7.26	1589	2.3	36	

FIELD OBSERVATIONS

SAMPLING INFORMATION:

POINT ID MW-14N

Date/Time 5-16-18 1240 **Water Level @ Sampling, Feet:** 6.89

Method of Sampling: Peristaltic **Dedicated:** (Y)/N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1240	11.8	7.26	1589	2.3	36	

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50°F Cloudy

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocols.

Date: 5/11/18 **By:** [signature] **Company:** TAL

FIELD OBSERVATIONS

Facility: CCMA Witmer Rd

Sample Point ID: Leachate

Field Personnel: EB/TB

Sample Matrix: Leachate

(X) Grab ( ) Composite

SAMPLING INFORMATION

Date/Time ~~11-~~ 5-11-18 / 1112

Water Level @ Sampling, Feet: N/A

Method of Sampling: Bailer

Dedicated: Y (N)

Multi-phased/ layered: ( ) Yes (X) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1112	13.4	8.47	1083	1.8	75	

INSTRUMENT CALIBRATION

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std. 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION

Weather conditions @ time of sampling: Cloudy, 45°F

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable USEPA, State and Site-Specific protocols.

Date: 5/11/18 **By:** [signature] **Company:** TAL

NYFS Leach Form 12/20/11

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FIELD OBSERVATIONS

Facility: CCMA Witmer Rd

Sample Point ID: SW-1

Field Personnel: EB/TB

Sample Matrix: SW

INFORMATION: (X) Grab ( ) Composite

Date/Time ~~HO~~ 5-11-18 / 1005

Water Level @ Sampling, Feet: N/A

Method of Sampling: Dipper

Dedicated: Y (N)

Multi-phased/ layered: ( ) Yes (X) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (SU)	Conductivity (µmhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )

INSTRUMENT CALIBRATION/CHECK DATA:

Meter ID#	Cal Std 7.0 SU	Cal Std 4.0 SU	Cal Std 10.0 SU	Check Std 7.0 SU (± 10%)	Cal.Std 1,413 µmhos/cm	Check.Std 1,413 µmhos/cm (± 10%)	Cal.Std 10 NTU	Check Std. 10 NTU (± 10%)
Solution ID#								

GENERAL INFORMATION:

Weather conditions @ time of sampling: 45°F cloudy

Sample Characteristics:

COMMENTS AND OBSERVATIONS:

Pond DRY - NOT SAMPLED

I certify that sampling procedures were in accordance with all applicable USEPA, State and Site-Specific protocols.

Date: 5/11/18 **By:** [signature] **Company:** TAL

NYFS Leach Form 12/20/11

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TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: EB/TB	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-112128-16534.1
Client Contact: Gary Joiner	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:
Address: PO BOX 217	Due Date Requested:			
City: Calvert City	TAT Requested (days):			
State, Zip: KY, 42029				
Phone: 904-343-3087(Tel) 904-824-0728(Fax)	PO #: Purchase Order not required			
Email: gjoiner@ccmetals.com	WO #:			
Project Name: Witmer Road G/W Event Desc: Witmer Road G/W	Project #: 48003429			
Site: New York	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	9M5310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	A	N	N	N		
BR-1	5-11-18	1332	G	Water			1	1	1	2	3	1	-	1	10	
MW-3R		1048		Water			1	1	1	2	3	1	-	1	10	
MW-12		0937		Water			1	1	1	2	3	1	-	1	10	
MW-14N		1240		Water			1	1	1	2	3	1	-	1	10	
MW-5R		1142		Water			1	1	1	2	3	1	-	1	10	
Leachate		1112		Water			1	1	1	2	3	1	-	1	10	
SW-1	5-11-18	—	G	Water												DRY-NOT SAMPLED
Trip Blank	5-11-18	0900	G								2				2	

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5-11-18/1400	Company: TAL	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: LAN Associates

Job Number: 480-135797-1

Login Number: 135797
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TAL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: LAN Associates

Job Number: 480-135797-1

Login Number: 135797
List Number: 2
Creator: Armbruster, Chris

List Source: TestAmerica Edison
List Creation: 05/15/18 12:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: LAN Associates

Job Number: 480-135797-1

Login Number: 135797
List Number: 3
Creator: Armbruster, Chris

List Source: TestAmerica Edison
List Creation: 05/18/18 12:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-153242-1
Client Project/Site: Witmer Road G/W
Revision: 1

For:
LAN Associates Inc
88 Riberia Street
Suite 400
St. Augustine, Florida 32084

Attn: Mr. Chris L. Callegari

Judy Stone

Authorized for release by:
6/4/2019 1:45:35 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

Table of Contents

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

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

Job ID: 480-153242-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-153242-1

Revision (1)
The report has been revised to include the MSD result for COD on sample BR-1 (480-153251-1). There are no changes to the sample results.

Receipt
The samples were received on 5/8/2019 10:00 PM, 5/9/2019 12:00 PM and 5/17/2019 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.1° C, 2.9° C and 7.6° C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 240-381987 recovered above the upper control limit for difluorodichloromethane, trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-3R (480-153242-1), MW-14N (480-153242-2), MW-5R (480-153242-3), SW-1 (480-153242-4), Trip Blank (480-153242-5), BR-1 (480-153251-1), MW-12 (480-153251-2), Leachate (480-153251-3), Trip Blank (480-153251-4) and (CCVIS 240-381987/4).

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

HPLC/IC
Method(s) 300.0: The CCB for analytical batch 680-572331 contained Sulfate above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

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

General Chemistry
Method(s) SM 3500 CR B: The following samples were analyzed outside of analytical holding time due to being logged in after holding time expired: MW-14N (480-153242-2), MW-5R (480-153242-3) and SW-1 (480-153242-4).

Method(s) SM 3500 CR B: The following sample(s) was received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-3R (480-153242-1).

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

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

Detection Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-3R — Lab Sample ID: 480-153242-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	86		1.0		mg/L	2		300.0-1993 R2.1	Total/NA
Sulfate	180		2.0		mg/L	2		300.0-1993 R2.1	Total/NA
Boron	0.12		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.027		0.010		mg/L	1		6010C	Total Recoverable
Sodium	42.1		1.0		mg/L	1		6010C	Total Recoverable
Total Organic Carbon	2.4		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	761		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14N — Lab Sample ID: 480-153242-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	20		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	1.3		1.0		ug/L	1		8260C	Total/NA
Chloride	150		2.5		mg/L	5		300.0-1993 R2.1	Total/NA
Sulfate	250		5.0		mg/L	5		300.0-1993 R2.1	Total/NA
Boron	0.10		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.14		0.010		mg/L	1		6010C	Total Recoverable
Potassium	3.5		1.0		mg/L	1		6010C	Total Recoverable
Manganese	0.13		0.010		mg/L	1		6010C	Total Recoverable
Sodium	113		10.0		mg/L	10		6010C	Total Recoverable
Total Organic Carbon	3.1		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	948		20.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5R — Lab Sample ID: 480-153242-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	82		1.0		mg/L	2		300.0-1993 R2.1	Total/NA
Sulfate	180		2.0		mg/L	2		300.0-1993 R2.1	Total/NA
Boron	0.17		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.054		0.010		mg/L	1		6010C	Total Recoverable
Potassium	21.5		1.0		mg/L	1		6010C	Total Recoverable
Manganese	0.030		0.010		mg/L	1		6010C	Total Recoverable
Sodium	81.4		1.0		mg/L	1		6010C	Total Recoverable
Chemical Oxygen Demand	14.9		10.0		mg/L	1		410.4-1993 R2.0	Total/NA
Total Organic Carbon	5.7		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	544		11.9		mg/L	1		SM 2540C	Total/NA

Client Sample ID: SW-1 — Lab Sample ID: 480-153242-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		0.50		mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	26		1.0		mg/L	1		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: SW-1 (Continued) — Lab Sample ID: 480-153242-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.15		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.064		0.010		mg/L	1		6010C	Total Recoverable
Chromium	0.036		0.010		mg/L	1		6010C	Total Recoverable
Potassium	9.6		1.0		mg/L	1		6010C	Total Recoverable
Manganese	0.87		0.010		mg/L	1		6010C	Total Recoverable
Sodium	23.6		1.0		mg/L	1		6010C	Total Recoverable
Chemical Oxygen Demand	54.9		10.0		mg/L	1		410.4-1993 R2.0	Total/NA
Total Organic Carbon	15.8		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	384		18.2		mg/L	1		SM 2540C	Total/NA
Cr (VI)	0.035	H	0.010		mg/L	1		SM 3500 CR B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-153242-5

No Detections.

Client Sample ID: BR-1 — Lab Sample ID: 480-153251-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	69		0.50		mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	75		1.0		mg/L	1		300.0-1993 R2.1	Total/NA
Boron	0.12		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.16		0.010		mg/L	1		6010C	Total Recoverable
Potassium	10.9		1.0		mg/L	1		6010C	Total Recoverable
Manganese	0.61		0.010		mg/L	1		6010C	Total Recoverable
Sodium	52.1		1.0		mg/L	1		6010C	Total Recoverable
Chemical Oxygen Demand	11.4		10.0		mg/L	1		410.4-1993 R2.0	Total/NA
Total Organic Carbon	3.6		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	372		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 480-153251-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.3		1.0		ug/L	1		8260C	Total/NA
Chloride	160		1.0		mg/L	2		300.0-1993 R2.1	Total/NA
Sulfate	150		2.0		mg/L	2		300.0-1993 R2.1	Total/NA
Boron	0.15		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.040		0.010		mg/L	1		6010C	Total Recoverable
Potassium	5.1		1.0		mg/L	1		6010C	Total Recoverable
Manganese	0.046		0.010		mg/L	1		6010C	Total Recoverable
Sodium	88.9		10.0		mg/L	10		6010C	Total Recoverable
Total Organic Carbon	2.8		1.0		mg/L	1		5310 B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-12 (Continued) — Lab Sample ID: 480-153251-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	886		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Leachate — Lab Sample ID: 480-153251-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromide	2.7		1.0		mg/L	2		300.0-1993 R2.1	Total/NA
Chloride	180		1.0		mg/L	2		300.0-1993 R2.1	Total/NA
Sulfate	210		2.0		mg/L	2		300.0-1993 R2.1	Total/NA
Boron	0.40		0.10		mg/L	1		6010C	Total Recoverable
Barium	0.090		0.010		mg/L	1		6010C	Total Recoverable
Chromium	0.029		0.010		mg/L	1		6010C	Total Recoverable
Potassium	143		10.0		mg/L	10		6010C	Total Recoverable
Manganese	0.18		0.010		mg/L	1		6010C	Total Recoverable
Sodium	112		10.0		mg/L	10		6010C	Total Recoverable
Chemical Oxygen Demand	24.3		10.0		mg/L	1		410.4-1993 R2.0	Total/NA
Total Organic Carbon	9.6		1.0		mg/L	1		5310 B-2011	Total/NA
Total Dissolved Solids	1030		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-153251-4

No Detections.

Client Sample ID: MW-3R — Lab Sample ID: 480-153677-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.065		0.010		mg/L	1		SM 3500 CR B	Total/NA

Client Sample ID: MW-14N — Lab Sample ID: 480-153677-2

No Detections.

Client Sample ID: MW-5R — Lab Sample ID: 480-153677-3

No Detections.

Client Sample ID: SW-1 — Lab Sample ID: 480-153677-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-3R
Date Collected: 05/08/19 16:15
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 13:27	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 13:27	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 13:27	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 13:27	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:27	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 13:27	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 13:27	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:27	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:27	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 13:27	1
2-Hexanone	ND		10		ug/L			05/19/19 13:27	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 13:27	1
Acetone	ND		10		ug/L			05/19/19 13:27	1
Acetonitrile	ND		20		ug/L			05/19/19 13:27	1
Benzene	ND		1.0		ug/L			05/19/19 13:27	1
Bromoform	ND		1.0		ug/L			05/19/19 13:27	1
Bromomethane	ND		1.0		ug/L			05/19/19 13:27	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 13:27	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 13:27	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 13:27	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 13:27	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 13:27	1
Chloroethane	ND		1.0		ug/L			05/19/19 13:27	1
Chloroform	ND		1.0		ug/L			05/19/19 13:27	1
Chloromethane	ND		1.0		ug/L			05/19/19 13:27	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 13:27	1
Cyclohexane	ND		1.0		ug/L			05/19/19 13:27	1
Dibromomethane	ND		1.0		ug/L			05/19/19 13:27	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 13:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 13:27	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 13:27	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 13:27	1
Iodomethane	ND		1.0		ug/L			05/19/19 13:27	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 13:27	1
Methyl acetate	ND		10		ug/L			05/19/19 13:27	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 13:27	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 13:27	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 13:27	1
o-Xylene	ND		1.0		ug/L			05/19/19 13:27	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 13:27	1
Toluene	ND		1.0		ug/L			05/19/19 13:27	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 13:27	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 13:27	1

Client Sample ID: MW-3R

Lab Sample ID: 480-153242-1

Date Collected: 05/08/19 16:15

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 13:27	1
Trichloroethene	ND		1.0		ug/L			05/19/19 13:27	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 13:27	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 13:27	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 13:27	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 13:27	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 13:27	1
Styrene	ND		1.0		ug/L			05/19/19 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 121*		*05/19/19 13:27*	*1*
4-Bromofluorobenzene (Surr)	*76*		*59 - 120*		*05/19/19 13:27*	*1*
Toluene-d8 (Surr)	*81*		*70 - 123*		*05/19/19 13:27*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 128*		*05/19/19 13:27*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/30/19 19:15	2
Chloride	**86**		1.0		mg/L			05/30/19 19:15	2
Sulfate	**180**		2.0		mg/L			05/30/19 19:15	2

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:38	1
Boron	**0.12**		0.10		mg/L		05/28/19 16:56	05/30/19 04:38	1
Barium	**0.027**		0.010		mg/L		05/28/19 16:56	05/30/19 04:38	1
Chromium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:38	1
Potassium	ND		1.0		mg/L		05/28/19 16:56	05/30/19 04:38	1
Manganese	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:38	1
Sodium	**42.1**		1.0		mg/L		05/28/19 16:56	05/30/19 04:38	1
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:38	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/22/19 09:44	1
Total Organic Carbon	**2.4**		1.0		mg/L			05/16/19 14:33	1
Total Dissolved Solids	**761**		10.0		mg/L			05/15/19 11:12	1
Cr (VI)	ND	H	0.010		mg/L			05/10/19 08:10	1

Client Sample ID: MW-14N

Lab Sample ID: 480-153242-2

Date Collected: 05/08/19 14:45

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 13:49	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-14N
Date Collected: 05/08/19 14:45
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 13:49	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 13:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 13:49	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 13:49	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:49	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 13:49	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 13:49	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:49	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 13:49	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 13:49	1
2-Hexanone	ND		10		ug/L			05/19/19 13:49	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 13:49	1
Acetone	ND		10		ug/L			05/19/19 13:49	1
Acetonitrile	ND		20		ug/L			05/19/19 13:49	1
Benzene	ND		1.0		ug/L			05/19/19 13:49	1
Bromoform	ND		1.0		ug/L			05/19/19 13:49	1
Bromomethane	ND		1.0		ug/L			05/19/19 13:49	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 13:49	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 13:49	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 13:49	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 13:49	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 13:49	1
Chloroethane	ND		1.0		ug/L			05/19/19 13:49	1
Chloroform	ND		1.0		ug/L			05/19/19 13:49	1
Chloromethane	ND		1.0		ug/L			05/19/19 13:49	1
cis-1,2-Dichloroethene	**20**		1.0		ug/L			05/19/19 13:49	1
Cyclohexane	ND		1.0		ug/L			05/19/19 13:49	1
Dibromomethane	ND		1.0		ug/L			05/19/19 13:49	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 13:49	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 13:49	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 13:49	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 13:49	1
Iodomethane	ND		1.0		ug/L			05/19/19 13:49	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 13:49	1
Methyl acetate	ND		10		ug/L			05/19/19 13:49	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 13:49	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 13:49	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 13:49	1
o-Xylene	ND		1.0		ug/L			05/19/19 13:49	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 13:49	1
Toluene	ND		1.0		ug/L			05/19/19 13:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 13:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 13:49	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 13:49	1

Client Sample ID: MW-14N

Lab Sample ID: 480-153242-2

Date Collected: 05/08/19 14:45

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.0		ug/L			05/19/19 13:49	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 13:49	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 13:49	1
Vinyl chloride	**1.3**		1.0		ug/L			05/19/19 13:49	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 13:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 13:49	1
Styrene	ND		1.0		ug/L			05/19/19 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*70 - 121*		*05/19/19 13:49*	*1*
4-Bromofluorobenzene (Surr)	*78*		*59 - 120*		*05/19/19 13:49*	*1*
Toluene-d8 (Surr)	*81*		*70 - 123*		*05/19/19 13:49*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 128*		*05/19/19 13:49*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		2.5		mg/L			05/30/19 19:53	5
Chloride	**150**		2.5		mg/L			05/30/19 19:53	5
Sulfate	**250**		5.0		mg/L			05/30/19 19:53	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:43	1
Boron	**0.10**		0.10		mg/L		05/28/19 16:56	05/30/19 04:43	1
Barium	**0.14**		0.010		mg/L		05/28/19 16:56	05/30/19 04:43	1
Chromium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:43	1
Potassium	**3.5**		1.0		mg/L		05/28/19 16:56	05/30/19 04:43	1
Manganese	**0.13**		0.010		mg/L		05/28/19 16:56	05/30/19 04:43	1
Sodium	**113**		10.0		mg/L		05/28/19 16:56	05/30/19 10:18	10
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:43	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/22/19 09:44	1
Total Organic Carbon	**3.1**		1.0		mg/L			05/24/19 15:12	1
Total Dissolved Solids	**948**		20.0		mg/L			05/15/19 11:12	1
Cr (VI)	ND	H	0.010		mg/L			05/10/19 08:10	1

Client Sample ID: MW-5R

Lab Sample ID: 480-153242-3

Date Collected: 05/08/19 13:25

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 14:12	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-5R
Date Collected: 05/08/19 13:25
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 14:12	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 14:12	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 14:12	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 14:12	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:12	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 14:12	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 14:12	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:12	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:12	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 14:12	1
2-Hexanone	ND		10		ug/L			05/19/19 14:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 14:12	1
Acetone	ND		10		ug/L			05/19/19 14:12	1
Acetonitrile	ND		20		ug/L			05/19/19 14:12	1
Benzene	ND		1.0		ug/L			05/19/19 14:12	1
Bromoform	ND		1.0		ug/L			05/19/19 14:12	1
Bromomethane	ND		1.0		ug/L			05/19/19 14:12	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 14:12	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 14:12	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 14:12	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 14:12	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 14:12	1
Chloroethane	ND		1.0		ug/L			05/19/19 14:12	1
Chloroform	ND		1.0		ug/L			05/19/19 14:12	1
Chloromethane	ND		1.0		ug/L			05/19/19 14:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:12	1
Cyclohexane	ND		1.0		ug/L			05/19/19 14:12	1
Dibromomethane	ND		1.0		ug/L			05/19/19 14:12	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 14:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 14:12	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 14:12	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 14:12	1
Iodomethane	ND		1.0		ug/L			05/19/19 14:12	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 14:12	1
Methyl acetate	ND		10		ug/L			05/19/19 14:12	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 14:12	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 14:12	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 14:12	1
o-Xylene	ND		1.0		ug/L			05/19/19 14:12	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 14:12	1
Toluene	ND		1.0		ug/L			05/19/19 14:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:12	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:12	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 14:12	1
Trichloroethene	ND		1.0		ug/L			05/19/19 14:12	1

Client Sample ID: MW-5R

Lab Sample ID: 480-153242-3

Date Collected: 05/08/19 13:25

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 14:12	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 14:12	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 14:12	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 14:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:12	1
Styrene	ND		1.0		ug/L			05/19/19 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 121*		*05/19/19 14:12*	*1*
4-Bromofluorobenzene (Surr)	*78*		*59 - 120*		*05/19/19 14:12*	*1*
Toluene-d8 (Surr)	*82*		*70 - 123*		*05/19/19 14:12*	*1*
Dibromofluoromethane (Surr)	*86*		*75 - 128*		*05/19/19 14:12*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/30/19 20:05	2
Chloride	**82**		1.0		mg/L			05/30/19 20:05	2
Sulfate	**180**		2.0		mg/L			05/30/19 20:05	2

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/29/19 13:45	05/31/19 11:02	1
Boron	**0.17**		0.10		mg/L		05/29/19 13:45	05/31/19 11:02	1
Barium	**0.054**		0.010		mg/L		05/29/19 13:45	05/31/19 11:02	1
Chromium	ND		0.010		mg/L		05/29/19 13:45	05/31/19 11:02	1
Potassium	**21.5**		1.0		mg/L		05/29/19 13:45	05/31/19 11:02	1
Manganese	**0.030**		0.010		mg/L		05/29/19 13:45	05/31/19 11:02	1
Sodium	**81.4**		1.0		mg/L		05/29/19 13:45	05/31/19 11:02	1
Lead	ND		0.010		mg/L		05/29/19 13:45	05/31/19 11:02	1
Selenium	ND		0.020		mg/L		05/29/19 13:45	05/31/19 11:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**14.9**		10.0		mg/L			05/22/19 09:44	1
Total Organic Carbon	**5.7**		1.0		mg/L			05/24/19 16:05	1
Total Dissolved Solids	**544**		11.9		mg/L			05/15/19 11:12	1
Cr (VI)	ND	H	0.010		mg/L			05/10/19 08:10	1

Client Sample ID: SW-1

Lab Sample ID: 480-153242-4

Date Collected: 05/08/19 13:40

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:35	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: SW-1
Date Collected: 05/08/19 13:40
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 14:35	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 14:35	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 14:35	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 14:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:35	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 14:35	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 14:35	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:35	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 14:35	1
2-Hexanone	ND		10		ug/L			05/19/19 14:35	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 14:35	1
Acetone	ND		10		ug/L			05/19/19 14:35	1
Acetonitrile	ND		20		ug/L			05/19/19 14:35	1
Benzene	ND		1.0		ug/L			05/19/19 14:35	1
Bromoform	ND		1.0		ug/L			05/19/19 14:35	1
Bromomethane	ND		1.0		ug/L			05/19/19 14:35	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 14:35	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 14:35	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 14:35	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 14:35	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 14:35	1
Chloroethane	ND		1.0		ug/L			05/19/19 14:35	1
Chloroform	ND		1.0		ug/L			05/19/19 14:35	1
Chloromethane	ND		1.0		ug/L			05/19/19 14:35	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:35	1
Cyclohexane	ND		1.0		ug/L			05/19/19 14:35	1
Dibromomethane	ND		1.0		ug/L			05/19/19 14:35	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 14:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 14:35	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 14:35	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 14:35	1
Iodomethane	ND		1.0		ug/L			05/19/19 14:35	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 14:35	1
Methyl acetate	ND		10		ug/L			05/19/19 14:35	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 14:35	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 14:35	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 14:35	1
o-Xylene	ND		1.0		ug/L			05/19/19 14:35	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 14:35	1
Toluene	ND		1.0		ug/L			05/19/19 14:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:35	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 14:35	1
Trichloroethene	ND		1.0		ug/L			05/19/19 14:35	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 14:35	1

Client Sample ID: SW-1

Lab Sample ID: 480-153242-4

Date Collected: 05/08/19 13:40

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		2.0		ug/L			05/19/19 14:35	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 14:35	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 14:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:35	1
Styrene	ND		1.0		ug/L			05/19/19 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*70 - 121*		*05/19/19 14:35*	*1*
4-Bromofluorobenzene (Surr)	*79*		*59 - 120*		*05/19/19 14:35*	*1*
Toluene-d8 (Surr)	*85*		*70 - 123*		*05/19/19 14:35*	*1*
Dibromofluoromethane (Surr)	*87*		*75 - 128*		*05/19/19 14:35*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50		mg/L			05/30/19 20:18	1
Chloride	**16**		0.50		mg/L			05/30/19 20:18	1
Sulfate	**26**		1.0		mg/L			05/30/19 20:18	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:48	1
Boron	**0.15**		0.10		mg/L		05/28/19 16:56	05/30/19 04:48	1
Barium	**0.064**		0.010		mg/L		05/28/19 16:56	05/30/19 04:48	1
Chromium	**0.036**		0.010		mg/L		05/28/19 16:56	05/30/19 04:48	1
Potassium	**9.6**		1.0		mg/L		05/28/19 16:56	05/30/19 04:48	1
Manganese	**0.87**		0.010		mg/L		05/28/19 16:56	05/30/19 04:48	1
Sodium	**23.6**		1.0		mg/L		05/28/19 16:56	05/30/19 04:48	1
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:48	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**54.9**		10.0		mg/L			05/22/19 09:44	1
Total Organic Carbon	**15.8**		1.0		mg/L			05/24/19 16:21	1
Total Dissolved Solids	**384**		18.2		mg/L			05/15/19 11:12	1
Cr (VI)	**0.035**	**H**	0.010		mg/L			05/10/19 08:10	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-153242-5

Date Collected: 05/08/19 12:00

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 14:57	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: Trip Blank
Date Collected: 05/08/19 12:00
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 14:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 14:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 14:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 14:57	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:57	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 14:57	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 14:57	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:57	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 14:57	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 14:57	1
2-Hexanone	ND		10		ug/L			05/19/19 14:57	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 14:57	1
Acetone	ND		10		ug/L			05/19/19 14:57	1
Acetonitrile	ND		20		ug/L			05/19/19 14:57	1
Benzene	ND		1.0		ug/L			05/19/19 14:57	1
Bromoform	ND		1.0		ug/L			05/19/19 14:57	1
Bromomethane	ND		1.0		ug/L			05/19/19 14:57	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 14:57	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 14:57	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 14:57	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 14:57	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 14:57	1
Chloroethane	ND		1.0		ug/L			05/19/19 14:57	1
Chloroform	ND		1.0		ug/L			05/19/19 14:57	1
Chloromethane	ND		1.0		ug/L			05/19/19 14:57	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:57	1
Cyclohexane	ND		1.0		ug/L			05/19/19 14:57	1
Dibromomethane	ND		1.0		ug/L			05/19/19 14:57	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 14:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 14:57	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 14:57	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 14:57	1
Iodomethane	ND		1.0		ug/L			05/19/19 14:57	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 14:57	1
Methyl acetate	ND		10		ug/L			05/19/19 14:57	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 14:57	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 14:57	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 14:57	1
o-Xylene	ND		1.0		ug/L			05/19/19 14:57	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 14:57	1
Toluene	ND		1.0		ug/L			05/19/19 14:57	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 14:57	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:57	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 14:57	1
Trichloroethene	ND		1.0		ug/L			05/19/19 14:57	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 14:57	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 14:57	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-153242-5

Date Collected: 05/08/19 12:00

Matrix: Water

Date Received: 05/08/19 22:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0		ug/L			05/19/19 14:57	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 14:57	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 14:57	1
Styrene	ND		1.0		ug/L			05/19/19 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*70 - 121*		*05/19/19 14:57*	*1*
4-Bromofluorobenzene (Surr)	*78*		*59 - 120*		*05/19/19 14:57*	*1*
Toluene-d8 (Surr)	*86*		*70 - 123*		*05/19/19 14:57*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 128*		*05/19/19 14:57*	*1*

Client Sample ID: BR-1

Lab Sample ID: 480-153251-1

Date Collected: 05/09/19 09:10

Matrix: Water

Date Received: 05/09/19 12:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 15:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 15:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 15:20	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 15:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:20	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 15:20	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 15:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:20	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 15:20	1
2-Hexanone	ND		10		ug/L			05/19/19 15:20	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 15:20	1
Acetone	ND		10		ug/L			05/19/19 15:20	1
Acetonitrile	ND		20		ug/L			05/19/19 15:20	1
Benzene	ND		1.0		ug/L			05/19/19 15:20	1
Bromoform	ND		1.0		ug/L			05/19/19 15:20	1
Bromomethane	ND		1.0		ug/L			05/19/19 15:20	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 15:20	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 15:20	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 15:20	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 15:20	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 15:20	1
Chloroethane	ND		1.0		ug/L			05/19/19 15:20	1
Chloroform	ND		1.0		ug/L			05/19/19 15:20	1
Chloromethane	ND		1.0		ug/L			05/19/19 15:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 15:20	1
Cyclohexane	ND		1.0		ug/L			05/19/19 15:20	1

Client Sample ID: BR-1
Date Collected: 05/09/19 09:10
Date Received: 05/09/19 12:00

Lab Sample ID: 480-153251-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0		ug/L			05/19/19 15:20	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 15:20	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 15:20	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 15:20	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 15:20	1
Iodomethane	ND		1.0		ug/L			05/19/19 15:20	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 15:20	1
Methyl acetate	ND		10		ug/L			05/19/19 15:20	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 15:20	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 15:20	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 15:20	1
o-Xylene	ND		1.0		ug/L			05/19/19 15:20	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 15:20	1
Toluene	ND		1.0		ug/L			05/19/19 15:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 15:20	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 15:20	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 15:20	1
Trichloroethene	ND		1.0		ug/L			05/19/19 15:20	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 15:20	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 15:20	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 15:20	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 15:20	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 15:20	1
Styrene	ND		1.0		ug/L			05/19/19 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 121*		*05/19/19 15:20*	*1*
4-Bromofluorobenzene (Surr)	*79*		*59 - 120*		*05/19/19 15:20*	*1*
Toluene-d8 (Surr)	*84*		*70 - 123*		*05/19/19 15:20*	*1*
Dibromofluoromethane (Surr)	*87*		*75 - 128*		*05/19/19 15:20*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50		mg/L			05/30/19 20:31	1
Chloride	**69**		0.50		mg/L			05/30/19 20:31	1
Sulfate	**75**		1.0		mg/L			05/30/19 20:31	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:53	1
Boron	**0.12**		0.10		mg/L		05/28/19 16:56	05/30/19 04:53	1
Barium	**0.16**		0.010		mg/L		05/28/19 16:56	05/30/19 04:53	1
Chromium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:53	1
Potassium	**10.9**		1.0		mg/L		05/28/19 16:56	05/30/19 04:53	1
Manganese	**0.61**		0.010		mg/L		05/28/19 16:56	05/30/19 04:53	1
Sodium	**52.1**		1.0		mg/L		05/28/19 16:56	05/30/19 04:53	1
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:53	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:53	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: BR-1

Lab Sample ID: 480-153251-1

Date Collected: 05/09/19 09:10
Matrix: Water
Date Received: 05/09/19 12:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**11.4**		10.0		mg/L			05/16/19 11:03	1
Total Organic Carbon	**3.6**		1.0		mg/L			05/24/19 16:41	1
Total Dissolved Solids	**372**		10.0		mg/L			05/15/19 13:11	1
Cr (VI)	ND		0.010		mg/L			05/10/19 08:10	1

Client Sample ID: MW-12

Lab Sample ID: 480-153251-2

Date Collected: 05/09/19 10:05
Matrix: Water
Date Received: 05/09/19 12:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 15:42	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 15:42	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 15:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 15:42	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:42	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 15:42	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 15:42	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:42	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 15:42	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 15:42	1
2-Hexanone	ND		10		ug/L			05/19/19 15:42	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 15:42	1
Acetone	ND		10		ug/L			05/19/19 15:42	1
Acetonitrile	ND		20		ug/L			05/19/19 15:42	1
Benzene	ND		1.0		ug/L			05/19/19 15:42	1
Bromoform	ND		1.0		ug/L			05/19/19 15:42	1
Bromomethane	ND		1.0		ug/L			05/19/19 15:42	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 15:42	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 15:42	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 15:42	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 15:42	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 15:42	1
Chloroethane	ND		1.0		ug/L			05/19/19 15:42	1
Chloroform	ND		1.0		ug/L			05/19/19 15:42	1
Chloromethane	ND		1.0		ug/L			05/19/19 15:42	1
cis-1,2-Dichloroethene	**1.3**		1.0		ug/L			05/19/19 15:42	1
Cyclohexane	ND		1.0		ug/L			05/19/19 15:42	1
Dibromomethane	ND		1.0		ug/L			05/19/19 15:42	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 15:42	1

Client Sample ID: MW-12
Date Collected: 05/09/19 10:05
Date Received: 05/09/19 12:00

Lab Sample ID: 480-153251-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 15:42	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 15:42	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 15:42	1
Iodomethane	ND		1.0		ug/L			05/19/19 15:42	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 15:42	1
Methyl acetate	ND		10		ug/L			05/19/19 15:42	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 15:42	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 15:42	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 15:42	1
o-Xylene	ND		1.0		ug/L			05/19/19 15:42	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 15:42	1
Toluene	ND		1.0		ug/L			05/19/19 15:42	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 15:42	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 15:42	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 15:42	1
Trichloroethene	ND		1.0		ug/L			05/19/19 15:42	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 15:42	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 15:42	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 15:42	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 15:42	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 15:42	1
Styrene	ND		1.0		ug/L			05/19/19 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*70 - 121*		*05/19/19 15:42*	*1*
4-Bromofluorobenzene (Surr)	*78*		*59 - 120*		*05/19/19 15:42*	*1*
Toluene-d8 (Surr)	*83*		*70 - 123*		*05/19/19 15:42*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 128*		*05/19/19 15:42*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			05/30/19 20:43	2
Chloride	**160**		1.0		mg/L			05/30/19 20:43	2
Sulfate	**150**		2.0		mg/L			05/30/19 20:43	2

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:57	1
Boron	**0.15**		0.10		mg/L		05/28/19 16:56	05/30/19 04:57	1
Barium	**0.040**		0.010		mg/L		05/28/19 16:56	05/30/19 04:57	1
Chromium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:57	1
Potassium	**5.1**		1.0		mg/L		05/28/19 16:56	05/30/19 04:57	1
Manganese	**0.046**		0.010		mg/L		05/28/19 16:56	05/30/19 04:57	1
Sodium	**88.9**		10.0		mg/L		05/28/19 16:56	05/30/19 10:23	10
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:57	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 15:18	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-12

Lab Sample ID: 480-153251-2

Date Collected: 05/09/19 10:05

Matrix: Water

Date Received: 05/09/19 12:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/16/19 11:03	1
Total Organic Carbon	**2.8**		1.0		mg/L			05/24/19 16:59	1
Total Dissolved Solids	**886**		10.0		mg/L			05/15/19 13:11	1
Cr (VI)	ND		0.010		mg/L			05/10/19 08:10	1

Client Sample ID: Leachate

Lab Sample ID: 480-153251-3

Date Collected: 05/09/19 10:20

Matrix: Water

Date Received: 05/09/19 12:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 16:04	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 16:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 16:04	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 16:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:04	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 16:04	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 16:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:04	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 16:04	1
2-Hexanone	ND		10		ug/L			05/19/19 16:04	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 16:04	1
Acetone	ND		10		ug/L			05/19/19 16:04	1
Acetonitrile	ND		20		ug/L			05/19/19 16:04	1
Benzene	ND		1.0		ug/L			05/19/19 16:04	1
Bromoform	ND		1.0		ug/L			05/19/19 16:04	1
Bromomethane	ND		1.0		ug/L			05/19/19 16:04	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 16:04	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 16:04	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 16:04	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 16:04	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 16:04	1
Chloroethane	ND		1.0		ug/L			05/19/19 16:04	1
Chloroform	ND		1.0		ug/L			05/19/19 16:04	1
Chloromethane	ND		1.0		ug/L			05/19/19 16:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 16:04	1
Cyclohexane	ND		1.0		ug/L			05/19/19 16:04	1
Dibromomethane	ND		1.0		ug/L			05/19/19 16:04	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 16:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 16:04	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 16:04	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 16:04	1
Iodomethane	ND		1.0		ug/L			05/19/19 16:04	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: Leachate
Date Collected: 05/09/19 10:20
Date Received: 05/09/19 12:00

Lab Sample ID: 480-153251-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			05/19/19 16:04	1
Methyl acetate	ND		10		ug/L			05/19/19 16:04	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 16:04	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 16:04	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 16:04	1
o-Xylene	ND		1.0		ug/L			05/19/19 16:04	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 16:04	1
Toluene	ND		1.0		ug/L			05/19/19 16:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 16:04	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 16:04	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 16:04	1
Trichloroethene	ND		1.0		ug/L			05/19/19 16:04	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 16:04	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 16:04	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 16:04	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 16:04	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 16:04	1
Styrene	ND		1.0		ug/L			05/19/19 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*70 - 121*		*05/19/19 16:04*	*1*
4-Bromofluorobenzene (Surr)	*78*		*59 - 120*		*05/19/19 16:04*	*1*
Toluene-d8 (Surr)	*82*		*70 - 123*		*05/19/19 16:04*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 128*		*05/19/19 16:04*	*1*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.7**		1.0		mg/L			05/30/19 20:56	2
Chloride	**180**		1.0		mg/L			05/30/19 20:56	2
Sulfate	**210**		2.0		mg/L			05/30/19 20:56	2

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:34	1
Boron	**0.40**		0.10		mg/L		05/28/19 16:56	05/30/19 04:34	1
Barium	**0.090**		0.010		mg/L		05/28/19 16:56	05/30/19 04:34	1
Chromium	**0.029**		0.010		mg/L		05/28/19 16:56	05/30/19 04:34	1
Potassium	**143**		10.0		mg/L		05/28/19 16:56	05/30/19 10:13	10
Manganese	**0.18**		0.010		mg/L		05/28/19 16:56	05/30/19 04:34	1
Sodium	**112**		10.0		mg/L		05/28/19 16:56	05/30/19 10:13	10
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 04:34	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 04:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**24.3**		10.0		mg/L			05/16/19 11:03	1
Total Organic Carbon	**9.6**		1.0		mg/L			05/24/19 17:15	1

Client Sample ID: Leachate

Lab Sample ID: 480-153251-3

Date Collected: 05/09/19 10:20

Matrix: Water

Date Received: 05/09/19 12:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1030**		10.0		mg/L			05/15/19 13:11	1
Cr (VI)	ND		0.010		mg/L			05/10/19 08:10	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-153251-4

Date Collected: 05/09/19 08:30

Matrix: Water

Date Received: 05/09/19 12:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 16:27	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 16:27	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 16:27	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 16:27	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:27	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 16:27	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 16:27	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:27	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 16:27	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 16:27	1
2-Hexanone	ND		10		ug/L			05/19/19 16:27	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 16:27	1
Acetone	ND		10		ug/L			05/19/19 16:27	1
Acetonitrile	ND		20		ug/L			05/19/19 16:27	1
Benzene	ND		1.0		ug/L			05/19/19 16:27	1
Bromoform	ND		1.0		ug/L			05/19/19 16:27	1
Bromomethane	ND		1.0		ug/L			05/19/19 16:27	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 16:27	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 16:27	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 16:27	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 16:27	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 16:27	1
Chloroethane	ND		1.0		ug/L			05/19/19 16:27	1
Chloroform	ND		1.0		ug/L			05/19/19 16:27	1
Chloromethane	ND		1.0		ug/L			05/19/19 16:27	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 16:27	1
Cyclohexane	ND		1.0		ug/L			05/19/19 16:27	1
Dibromomethane	ND		1.0		ug/L			05/19/19 16:27	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 16:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 16:27	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 16:27	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 16:27	1
Iodomethane	ND		1.0		ug/L			05/19/19 16:27	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 16:27	1
Methyl acetate	ND		10		ug/L			05/19/19 16:27	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-153251-4

Date Collected: 05/09/19 08:30
Matrix: Water
Date Received: 05/09/19 12:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0		ug/L			05/19/19 16:27	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 16:27	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 16:27	1
o-Xylene	ND		1.0		ug/L			05/19/19 16:27	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 16:27	1
Toluene	ND		1.0		ug/L			05/19/19 16:27	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 16:27	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 16:27	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 16:27	1
Trichloroethene	ND		1.0		ug/L			05/19/19 16:27	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 16:27	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 16:27	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 16:27	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 16:27	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 16:27	1
Styrene	ND		1.0		ug/L			05/19/19 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*70 - 121*		*05/19/19 16:27*	*1*
4-Bromofluorobenzene (Surr)	*77*		*59 - 120*		*05/19/19 16:27*	*1*
Toluene-d8 (Surr)	*81*		*70 - 123*		*05/19/19 16:27*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 128*		*05/19/19 16:27*	*1*

Client Sample ID: MW-3R

Lab Sample ID: 480-153677-1

Date Collected: 05/17/19 14:30
Matrix: Water
Date Received: 05/17/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.065**		0.010		mg/L			05/18/19 07:46	1

Client Sample ID: MW-14N

Lab Sample ID: 480-153677-2

Date Collected: 05/17/19 13:40
Matrix: Water
Date Received: 05/17/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			05/18/19 07:46	1

Client Sample ID: MW-5R

Lab Sample ID: 480-153677-3

Date Collected: 05/17/19 13:00
Matrix: Water
Date Received: 05/17/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			05/18/19 07:46	1

Client Sample Results

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: SW-1
Date Collected: 05/17/19 12:30
Date Received: 05/17/19 15:45

Lab Sample ID: 480-153677-4
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			05/18/19 07:46	1

Surrogate Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(70-121)	(59-120)	(70-123)	(75-128)
480-153242-1	MW-3R	82	76	81	88
480-153242-2	MW-14N	84	78	81	88
480-153242-3	MW-5R	82	78	82	86
480-153242-4	SW-1	80	79	85	87
480-153242-5	Trip Blank	84	78	86	90
480-153251-1	BR-1	82	79	84	87
480-153251-2	MW-12	83	78	83	88
480-153251-3	Leachate	84	78	82	88
480-153251-4	Trip Blank	84	77	81	88
LCS 240-381987/6	Lab Control Sample	78	81	86	88
MB 240-381987/9	Method Blank	85	79	84	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-381987/9
Matrix: Water
Analysis Batch: 381987

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1-Dichloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,1-Dichloroethene	ND		1.0		ug/L			05/19/19 12:19	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/19/19 12:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/19/19 12:19	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			05/19/19 12:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/19/19 12:19	1
1,2-Dichloroethane	ND		1.0		ug/L			05/19/19 12:19	1
1,2-Dichloropropane	ND		1.0		ug/L			05/19/19 12:19	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/19/19 12:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/19/19 12:19	1
2-Butanone (MEK)	ND		10		ug/L			05/19/19 12:19	1
2-Hexanone	ND		10		ug/L			05/19/19 12:19	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/19/19 12:19	1
Acetone	ND		10		ug/L			05/19/19 12:19	1
Acetonitrile	ND		20		ug/L			05/19/19 12:19	1
Benzene	ND		1.0		ug/L			05/19/19 12:19	1
Bromoform	ND		1.0		ug/L			05/19/19 12:19	1
Bromomethane	ND		1.0		ug/L			05/19/19 12:19	1
Carbon disulfide	ND		1.0		ug/L			05/19/19 12:19	1
Carbon tetrachloride	ND		1.0		ug/L			05/19/19 12:19	1
Chlorobenzene	ND		1.0		ug/L			05/19/19 12:19	1
Bromochloromethane	ND		1.0		ug/L			05/19/19 12:19	1
Dibromochloromethane	ND		1.0		ug/L			05/19/19 12:19	1
Chloroethane	ND		1.0		ug/L			05/19/19 12:19	1
Chloroform	ND		1.0		ug/L			05/19/19 12:19	1
Chloromethane	ND		1.0		ug/L			05/19/19 12:19	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 12:19	1
Cyclohexane	ND		1.0		ug/L			05/19/19 12:19	1
Dibromomethane	ND		1.0		ug/L			05/19/19 12:19	1
Bromodichloromethane	ND		1.0		ug/L			05/19/19 12:19	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/19/19 12:19	1
Ethylbenzene	ND		1.0		ug/L			05/19/19 12:19	1
1,2-Dibromoethane	ND		1.0		ug/L			05/19/19 12:19	1
Iodomethane	ND		1.0		ug/L			05/19/19 12:19	1
Isopropylbenzene	ND		1.0		ug/L			05/19/19 12:19	1
Methyl acetate	ND		10		ug/L			05/19/19 12:19	1
Methylcyclohexane	ND		1.0		ug/L			05/19/19 12:19	1
Methylene Chloride	ND		5.0		ug/L			05/19/19 12:19	1
m,p-Xylene	ND		2.0		ug/L			05/19/19 12:19	1
o-Xylene	ND		1.0		ug/L			05/19/19 12:19	1
Tetrachloroethene	ND		1.0		ug/L			05/19/19 12:19	1
Toluene	ND		1.0		ug/L			05/19/19 12:19	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/19/19 12:19	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-381987/9
Matrix: Water
Analysis Batch: 381987

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 12:19	1
trans-1,4-Dichloro-2-butene	ND		2.5		ug/L			05/19/19 12:19	1
Trichloroethene	ND		1.0		ug/L			05/19/19 12:19	1
Trichlorofluoromethane	ND		1.0		ug/L			05/19/19 12:19	1
Vinyl acetate	ND		2.0		ug/L			05/19/19 12:19	1
Vinyl chloride	ND		1.0		ug/L			05/19/19 12:19	1
Xylenes, Total	ND		2.0		ug/L			05/19/19 12:19	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/19/19 12:19	1
Styrene	ND		1.0		ug/L			05/19/19 12:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*70 - 121*		*05/19/19 12:19*	*1*
4-Bromofluorobenzene (Surr)	*79*		*59 - 120*		*05/19/19 12:19*	*1*
Toluene-d8 (Surr)	*84*		*70 - 123*		*05/19/19 12:19*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 128*		*05/19/19 12:19*	*1*

Lab Sample ID: LCS 240-381987/6
Matrix: Water
Analysis Batch: 381987

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	18.9		ug/L		94	80 - 124
1,1,1-Trichloroethane	20.0	21.0		ug/L		105	69 - 134
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	65 - 139
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.0		ug/L		110	50 - 156
1,1,2-Trichloroethane	20.0	19.3		ug/L		96	78 - 133
1,1-Dichloroethane	20.0	19.8		ug/L		99	75 - 133
1,1-Dichloroethene	20.0	20.9		ug/L		104	65 - 139
1,2,3-Trichloropropane	20.0	19.0		ug/L		95	66 - 139
1,2,4-Trichlorobenzene	20.0	16.2		ug/L		81	42 - 133
1,2-Dibromo-3-Chloropropane	20.0	18.9		ug/L		94	46 - 132
1,2-Dichlorobenzene	20.0	17.4		ug/L		87	78 - 120
1,2-Dichloroethane	20.0	18.4		ug/L		92	71 - 135
1,2-Dichloropropane	20.0	20.1		ug/L		101	78 - 133
1,3-Dichlorobenzene	20.0	17.0		ug/L		85	78 - 120
1,4-Dichlorobenzene	20.0	17.2		ug/L		86	78 - 120
2-Butanone (MEK)	40.0	29.7		ug/L		74	39 - 163
2-Hexanone	40.0	35.4		ug/L		88	43 - 148
4-Methyl-2-pentanone (MIBK)	40.0	36.6		ug/L		91	49 - 143
Acetone	40.0	29.4		ug/L		73	21 - 162
Benzene	20.0	19.6		ug/L		98	80 - 123
Bromoform	20.0	17.7		ug/L		89	49 - 141
Bromomethane	20.0	22.6		ug/L		113	41 - 175
Carbon disulfide	20.0	18.9		ug/L		95	60 - 138
Carbon tetrachloride	20.0	20.2		ug/L		101	63 - 140
Chlorobenzene	20.0	18.4		ug/L		92	80 - 121
Bromochloromethane	20.0	17.9		ug/L		90	74 - 130
Dibromochloromethane	20.0	19.1		ug/L		96	70 - 132

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-381987/6
Matrix: Water
Analysis Batch: 381987

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.0	22.7		ug/L		114	33 - 173
Chloroform	20.0	19.4		ug/L		97	79 - 127
Chloromethane	20.0	22.4		ug/L		112	54 - 143
cis-1,2-Dichloroethene	20.0	18.8		ug/L		94	76 - 128
Cyclohexane	20.0	21.4		ug/L		107	58 - 145
Dibromomethane	20.0	17.6		ug/L		88	74 - 124
Bromodichloromethane	20.0	19.0		ug/L		95	77 - 125
Dichlorodifluoromethane	20.0	27.2		ug/L		136	29 - 148
Ethylbenzene	20.0	18.2		ug/L		91	80 - 120
1,2-Dibromoethane	20.0	19.0		ug/L		95	77 - 123
Iodomethane	20.0	20.6		ug/L		103	59 - 147
Isopropylbenzene	20.0	17.7		ug/L		88	74 - 120
Methyl acetate	40.0	28.2		ug/L		71	52 - 145
Methylcyclohexane	20.0	20.2		ug/L		101	60 - 125
Methylene Chloride	20.0	18.3		ug/L		92	70 - 134
m,p-Xylene	20.0	18.3		ug/L		91	80 - 120
o-Xylene	20.0	18.4		ug/L		92	80 - 120
Tetrachloroethene	20.0	18.8		ug/L		94	74 - 130
Toluene	20.0	19.3		ug/L		97	78 - 129
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	78 - 133
trans-1,3-Dichloropropene	20.0	19.1		ug/L		95	55 - 128
trans-1,4-Dichloro-2-butene	20.0	18.6		ug/L		93	16 - 181
Trichloroethene	20.0	19.1		ug/L		95	76 - 125
Trichlorofluoromethane	20.0	26.1		ug/L		130	51 - 164
Vinyl acetate	20.0	20.1		ug/L		101	45 - 151
Vinyl chloride	20.0	23.9		ug/L		120	58 - 143
cis-1,3-Dichloropropene	20.0	20.0		ug/L		100	64 - 132
Styrene	20.0	17.5		ug/L		88	79 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*78*		*70 - 121*
4-Bromofluorobenzene (Surr)	*81*		*59 - 120*
Toluene-d8 (Surr)	*86*		*70 - 123*
Dibromofluoromethane (Surr)	*88*		*75 - 128*

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-572331/12
Matrix: Water
Analysis Batch: 572331

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50		mg/L			05/30/19 15:11	1
Chloride	ND		0.50		mg/L			05/30/19 15:11	1
Sulfate	ND		1.0		mg/L			05/30/19 15:11	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-572331/9
Matrix: Water
Analysis Batch: 572331

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			10.0	9.58		mg/L		96	90 - 110		
Chloride			10.0	10.0		mg/L		100	90 - 110		
Sulfate			10.0	10.7		mg/L		107	90 - 110		

Lab Sample ID: LCSD 680-572331/10
Matrix: Water
Analysis Batch: 572331

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			10.0	9.56		mg/L		96	90 - 110	0	15
Chloride			10.0	10.0		mg/L		100	90 - 110	0	15
Sulfate			10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 480-153242-1 MS
Matrix: Water
Analysis Batch: 572331

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	ND		20.0	19.9		mg/L		100	80 - 120		
Chloride	86		20.0	107	4	mg/L		105	80 - 120		
Sulfate	180		20.0	204	4	mg/L		104	80 - 120		

Lab Sample ID: 480-153242-1 MSD
Matrix: Water
Analysis Batch: 572331

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		20.0	20.0		mg/L		100	80 - 120	0	15
Chloride	86		20.0	107	4	mg/L		105	80 - 120	0	15
Sulfate	180		20.0	203	4	mg/L		103	80 - 120	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-572091/1-A
Matrix: Water
Analysis Batch: 572334

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 572091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/28/19 16:56	05/30/19 03:23	1
Boron	ND		0.10		mg/L		05/28/19 16:56	05/30/19 03:23	1
Barium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 03:23	1
Chromium	ND		0.010		mg/L		05/28/19 16:56	05/30/19 03:23	1
Potassium	ND		1.0		mg/L		05/28/19 16:56	05/30/19 03:23	1
Manganese	ND		0.010		mg/L		05/28/19 16:56	05/30/19 03:23	1
Sodium	ND		1.0		mg/L		05/28/19 16:56	05/30/19 03:23	1
Lead	ND		0.010		mg/L		05/28/19 16:56	05/30/19 03:23	1
Selenium	ND		0.020		mg/L		05/28/19 16:56	05/30/19 03:23	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-572091/2-A
Matrix: Water
Analysis Batch: 572334

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 572091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0946		mg/L		95	80 - 120
Boron	0.200	0.188		mg/L		94	80 - 120
Barium	0.100	0.0987		mg/L		99	80 - 120
Chromium	0.100	0.0993		mg/L		99	80 - 120
Potassium	8.00	7.96		mg/L		99	80 - 120
Manganese	0.400	0.400		mg/L		100	80 - 120
Sodium	5.00	4.63		mg/L		93	80 - 120
Lead	0.500	0.490		mg/L		98	80 - 120
Selenium	0.100	0.0899		mg/L		90	80 - 120

Lab Sample ID: MB 680-572225/1-A
Matrix: Water
Analysis Batch: 572540

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 572225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.020		mg/L		05/29/19 13:45	05/31/19 10:25	1
Boron	ND		0.10		mg/L		05/29/19 13:45	05/31/19 10:25	1
Barium	ND		0.010		mg/L		05/29/19 13:45	05/31/19 10:25	1
Chromium	ND		0.010		mg/L		05/29/19 13:45	05/31/19 10:25	1
Potassium	ND		1.0		mg/L		05/29/19 13:45	05/31/19 10:25	1
Manganese	ND		0.010		mg/L		05/29/19 13:45	05/31/19 10:25	1
Sodium	ND		1.0		mg/L		05/29/19 13:45	05/31/19 10:25	1
Lead	ND		0.010		mg/L		05/29/19 13:45	05/31/19 10:25	1
Selenium	ND		0.020		mg/L		05/29/19 13:45	05/31/19 10:25	1

Lab Sample ID: LCS 680-572225/2-A
Matrix: Water
Analysis Batch: 572540

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 572225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0919		mg/L		92	80 - 120
Boron	0.200	0.192		mg/L		96	80 - 120
Barium	0.100	0.102		mg/L		102	80 - 120
Chromium	0.100	0.103		mg/L		103	80 - 120
Potassium	8.00	7.97		mg/L		100	80 - 120
Manganese	0.400	0.413		mg/L		103	80 - 120
Sodium	5.00	4.83		mg/L		97	80 - 120
Lead	0.500	0.507		mg/L		101	80 - 120
Selenium	0.100	0.0939		mg/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-570686/13-A
Matrix: Water
Analysis Batch: 570904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 570686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/16/19 15:44	05/17/19 18:53	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 680-570686/14-A
Matrix: Water
Analysis Batch: 570904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 570686

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			2.50	2.48		ug/L		99	80 - 120		

Method: 410.4-1993 R2.0 - COD

Lab Sample ID: MB 680-570620/3
Matrix: Water
Analysis Batch: 570620

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/16/19 11:03	1

Lab Sample ID: LCS 680-570620/4
Matrix: Water
Analysis Batch: 570620

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	46.85		mg/L		94	90 - 110		

Lab Sample ID: 480-153251-1 MS
Matrix: Water
Analysis Batch: 570620

Client Sample ID: BR-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	11.4		50.0	60.40		mg/L		98	90 - 110		

Lab Sample ID: 480-153251-1 MSD
Matrix: Water
Analysis Batch: 570620

Client Sample ID: BR-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	11.4		50.0	56.53		mg/L		90	90 - 110	7	30

Lab Sample ID: MB 680-571349/3
Matrix: Water
Analysis Batch: 571349

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/22/19 09:44	1

Lab Sample ID: LCS 680-571349/4
Matrix: Water
Analysis Batch: 571349

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	45.24		mg/L		90	90 - 110		

Method: 410.4-1993 R2.0 - COD (Continued)

Lab Sample ID: 480-153242-1 MS
Matrix: Water
Analysis Batch: 571349

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		50.0	51.69		mg/L		103	90 - 110		

Lab Sample ID: 480-153242-1 MSD
Matrix: Water
Analysis Batch: 571349

Client Sample ID: MW-3R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	51.37		mg/L		103	90 - 110	1	30

Method: 5310 B-2011 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-571022/3
Matrix: Water
Analysis Batch: 571022

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/16/19 11:36	1

Lab Sample ID: LCS 680-571022/4
Matrix: Water
Analysis Batch: 571022

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	19.46		mg/L		97	80 - 120

Lab Sample ID: LCSD 680-571022/5
Matrix: Water
Analysis Batch: 571022

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.67		mg/L		98	80 - 120	1	25

Lab Sample ID: MB 680-571955/3
Matrix: Water
Analysis Batch: 571955

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/24/19 14:07	1

Lab Sample ID: LCS 680-571955/4
Matrix: Water
Analysis Batch: 571955

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	19.60		mg/L		98	80 - 120

Method: 5310 B-2011 - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 680-571955/5
Matrix: Water
Analysis Batch: 571955

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			20.0	19.56		mg/L		98	80 - 120	0	25

Lab Sample ID: 480-153242-2 MS
Matrix: Water
Analysis Batch: 571955

Client Sample ID: MW-14N
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	3.1		20.0	23.06		mg/L		100	80 - 120

Lab Sample ID: 480-153242-2 MSD
Matrix: Water
Analysis Batch: 571955

Client Sample ID: MW-14N
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	3.1		20.0	22.73		mg/L		98	80 - 120	1	25

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-472968/1
Matrix: Water
Analysis Batch: 472968

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/15/19 11:12	1

Lab Sample ID: LCS 480-472968/2
Matrix: Water
Analysis Batch: 472968

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids			500	484.0		mg/L		97	85 - 115

Lab Sample ID: MB 480-472992/1
Matrix: Water
Analysis Batch: 472992

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/15/19 13:11	1

Lab Sample ID: LCS 480-472992/2
Matrix: Water
Analysis Batch: 472992

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids			500	490.0		mg/L		98	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 480-153251-3 DU
Matrix: Water
Analysis Batch: 472992

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1030		1028		mg/L		0.1	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 480-472224/3
Matrix: Water
Analysis Batch: 472224

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			05/10/19 08:10	1

Lab Sample ID: LCS 480-472224/4
Matrix: Water
Analysis Batch: 472224

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0500	0.0484		mg/L		97	85 - 115

Lab Sample ID: 480-153242-3 MS
Matrix: Water
Analysis Batch: 472224

Client Sample ID: MW-5R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND	H	0.0500	0.0546		mg/L		109	85 - 115

Lab Sample ID: 480-153251-3 MS
Matrix: Water
Analysis Batch: 472224

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND		0.0500	0.0496		mg/L		87	85 - 115

Lab Sample ID: 480-153251-1 DU
Matrix: Water
Analysis Batch: 472224

Client Sample ID: BR-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	ND		ND		mg/L		NC	15

Lab Sample ID: MB 480-473547/3
Matrix: Water
Analysis Batch: 473547

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			05/18/19 07:46	1

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-473547/4
Matrix: Water
Analysis Batch: 473547

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0500	0.0534		mg/L		107	85 - 115

GC/MS VOA

Analysis Batch: 381987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	8260C	
480-153242-2	MW-14N	Total/NA	Water	8260C	
480-153242-3	MW-5R	Total/NA	Water	8260C	
480-153242-4	SW-1	Total/NA	Water	8260C	
480-153242-5	Trip Blank	Total/NA	Water	8260C	
480-153251-1	BR-1	Total/NA	Water	8260C	
480-153251-2	MW-12	Total/NA	Water	8260C	
480-153251-3	Leachate	Total/NA	Water	8260C	
480-153251-4	Trip Blank	Total/NA	Water	8260C	
MB 240-381987/9	Method Blank	Total/NA	Water	8260C	
LCS 240-381987/6	Lab Control Sample	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 572331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	300.0-1993 R2.1	
480-153242-2	MW-14N	Total/NA	Water	300.0-1993 R2.1	
480-153242-3	MW-5R	Total/NA	Water	300.0-1993 R2.1	
480-153242-4	SW-1	Total/NA	Water	300.0-1993 R2.1	
480-153251-1	BR-1	Total/NA	Water	300.0-1993 R2.1	
480-153251-2	MW-12	Total/NA	Water	300.0-1993 R2.1	
480-153251-3	Leachate	Total/NA	Water	300.0-1993 R2.1	
MB 680-572331/12	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-572331/9	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-572331/10	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	
480-153242-1 MS	MW-3R	Total/NA	Water	300.0-1993 R2.1	
480-153242-1 MSD	MW-3R	Total/NA	Water	300.0-1993 R2.1	

Metals

Prep Batch: 570686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	7470A	
480-153242-2	MW-14N	Total/NA	Water	7470A	
480-153242-3	MW-5R	Total/NA	Water	7470A	
480-153242-4	SW-1	Total/NA	Water	7470A	
480-153251-1	BR-1	Total/NA	Water	7470A	
480-153251-2	MW-12	Total/NA	Water	7470A	
480-153251-3	Leachate	Total/NA	Water	7470A	
MB 680-570686/13-A	Method Blank	Total/NA	Water	7470A	
LCS 680-570686/14-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 570904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	7470A	570686
480-153242-2	MW-14N	Total/NA	Water	7470A	570686
480-153242-3	MW-5R	Total/NA	Water	7470A	570686
480-153242-4	SW-1	Total/NA	Water	7470A	570686
480-153251-1	BR-1	Total/NA	Water	7470A	570686
480-153251-2	MW-12	Total/NA	Water	7470A	570686
480-153251-3	Leachate	Total/NA	Water	7470A	570686

Metals (Continued)

Analysis Batch: 570904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-570686/13-A	Method Blank	Total/NA	Water	7470A	570686
LCS 680-570686/14-A	Lab Control Sample	Total/NA	Water	7470A	570686

Prep Batch: 572091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total Recoverable	Water	3005A	
480-153242-2	MW-14N	Total Recoverable	Water	3005A	
480-153242-4	SW-1	Total Recoverable	Water	3005A	
480-153251-1	BR-1	Total Recoverable	Water	3005A	
480-153251-2	MW-12	Total Recoverable	Water	3005A	
480-153251-3	Leachate	Total Recoverable	Water	3005A	
MB 680-572091/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-572091/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 572225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-3	MW-5R	Total Recoverable	Water	3005A	
MB 680-572225/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-572225/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 572334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total Recoverable	Water	6010C	572091
480-153242-2	MW-14N	Total Recoverable	Water	6010C	572091
480-153242-2	MW-14N	Total Recoverable	Water	6010C	572091
480-153242-4	SW-1	Total Recoverable	Water	6010C	572091
480-153251-1	BR-1	Total Recoverable	Water	6010C	572091
480-153251-2	MW-12	Total Recoverable	Water	6010C	572091
480-153251-2	MW-12	Total Recoverable	Water	6010C	572091
480-153251-3	Leachate	Total Recoverable	Water	6010C	572091
480-153251-3	Leachate	Total Recoverable	Water	6010C	572091
MB 680-572091/1-A	Method Blank	Total Recoverable	Water	6010C	572091
LCS 680-572091/2-A	Lab Control Sample	Total Recoverable	Water	6010C	572091

Analysis Batch: 572540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-3	MW-5R	Total Recoverable	Water	6010C	572225
MB 680-572225/1-A	Method Blank	Total Recoverable	Water	6010C	572225
LCS 680-572225/2-A	Lab Control Sample	Total Recoverable	Water	6010C	572225

General Chemistry

Analysis Batch: 472224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	SM 3500 CR B	
480-153242-2	MW-14N	Total/NA	Water	SM 3500 CR B	
480-153242-3	MW-5R	Total/NA	Water	SM 3500 CR B	
480-153242-4	SW-1	Total/NA	Water	SM 3500 CR B	
480-153251-1	BR-1	Total/NA	Water	SM 3500 CR B	
480-153251-2	MW-12	Total/NA	Water	SM 3500 CR B	
480-153251-3	Leachate	Total/NA	Water	SM 3500 CR B	

General Chemistry (Continued)

Analysis Batch: 472224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-472224/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-472224/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-153242-3 MS	MW-5R	Total/NA	Water	SM 3500 CR B	
480-153251-3 MS	Leachate	Total/NA	Water	SM 3500 CR B	
480-153251-1 DU	BR-1	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 472968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	SM 2540C	
480-153242-2	MW-14N	Total/NA	Water	SM 2540C	
480-153242-3	MW-5R	Total/NA	Water	SM 2540C	
480-153242-4	SW-1	Total/NA	Water	SM 2540C	
MB 480-472968/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-472968/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 472992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153251-1	BR-1	Total/NA	Water	SM 2540C	
480-153251-2	MW-12	Total/NA	Water	SM 2540C	
480-153251-3	Leachate	Total/NA	Water	SM 2540C	
MB 480-472992/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-472992/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-153251-3 DU	Leachate	Total/NA	Water	SM 2540C	

Analysis Batch: 473547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153677-1	MW-3R	Total/NA	Water	SM 3500 CR B	
480-153677-2	MW-14N	Total/NA	Water	SM 3500 CR B	
480-153677-3	MW-5R	Total/NA	Water	SM 3500 CR B	
480-153677-4	SW-1	Total/NA	Water	SM 3500 CR B	
MB 480-473547/3	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-473547/4	Lab Control Sample	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 570620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153251-1	BR-1	Total/NA	Water	410.4-1993 R2.0	
480-153251-2	MW-12	Total/NA	Water	410.4-1993 R2.0	
480-153251-3	Leachate	Total/NA	Water	410.4-1993 R2.0	
MB 680-570620/3	Method Blank	Total/NA	Water	410.4-1993 R2.0	
LCS 680-570620/4	Lab Control Sample	Total/NA	Water	410.4-1993 R2.0	
480-153251-1 MS	BR-1	Total/NA	Water	410.4-1993 R2.0	
480-153251-1 MSD	BR-1	Total/NA	Water	410.4-1993 R2.0	

Analysis Batch: 571022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	5310 B-2011	
MB 680-571022/3	Method Blank	Total/NA	Water	5310 B-2011	
LCS 680-571022/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCSD 680-571022/5	Lab Control Sample Dup	Total/NA	Water	5310 B-2011	

QC Association Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

General Chemistry

Analysis Batch: 571349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-1	MW-3R	Total/NA	Water	410.4-1993 R2.0	
480-153242-2	MW-14N	Total/NA	Water	410.4-1993 R2.0	
480-153242-3	MW-5R	Total/NA	Water	410.4-1993 R2.0	
480-153242-4	SW-1	Total/NA	Water	410.4-1993 R2.0	
MB 680-571349/3	Method Blank	Total/NA	Water	410.4-1993 R2.0	
LCS 680-571349/4	Lab Control Sample	Total/NA	Water	410.4-1993 R2.0	
480-153242-1 MS	MW-3R	Total/NA	Water	410.4-1993 R2.0	
480-153242-1 MSD	MW-3R	Total/NA	Water	410.4-1993 R2.0	

Analysis Batch: 571955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153242-2	MW-14N	Total/NA	Water	5310 B-2011	
480-153242-3	MW-5R	Total/NA	Water	5310 B-2011	
480-153242-4	SW-1	Total/NA	Water	5310 B-2011	
480-153251-1	BR-1	Total/NA	Water	5310 B-2011	
480-153251-2	MW-12	Total/NA	Water	5310 B-2011	
480-153251-3	Leachate	Total/NA	Water	5310 B-2011	
MB 680-571955/3	Method Blank	Total/NA	Water	5310 B-2011	
LCS 680-571955/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCSD 680-571955/5	Lab Control Sample Dup	Total/NA	Water	5310 B-2011	
480-153242-2 MS	MW-14N	Total/NA	Water	5310 B-2011	
480-153242-2 MSD	MW-14N	Total/NA	Water	5310 B-2011	

Client Sample ID: MW-3R

Lab Sample ID: 480-153242-1

Date Collected: 05/08/19 16:15

Matrix: Water

Date Received: 05/08/19 22:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 13:27	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		2	572331	05/30/19 19:15	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:38	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 14:47	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	571349	05/22/19 09:44	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571022	05/16/19 14:33	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472968	05/15/19 11:12	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: MW-14N

Lab Sample ID: 480-153242-2

Date Collected: 05/08/19 14:45

Matrix: Water

Date Received: 05/08/19 22:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 13:49	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	572331	05/30/19 19:53	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:43	BCB	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		10	572334	05/30/19 10:18	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 14:52	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	571349	05/22/19 09:44	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 15:12	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472968	05/15/19 11:12	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: MW-5R

Lab Sample ID: 480-153242-3

Date Collected: 05/08/19 13:25

Matrix: Water

Date Received: 05/08/19 22:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 14:12	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		2	572331	05/30/19 20:05	UI	TAL SAV
Total Recoverable	Prep	3005A			572225	05/29/19 13:45	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572540	05/31/19 11:02	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 14:56	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	571349	05/22/19 09:44	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 16:05	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472968	05/15/19 11:12	CSS	TAL BUF

Lab Chronicle

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-5R
Date Collected: 05/08/19 13:25
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: SW-1
Date Collected: 05/08/19 13:40
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 14:35	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	572331	05/30/19 20:18	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:48	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 15:00	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	571349	05/22/19 09:44	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 16:21	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472968	05/15/19 11:12	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: Trip Blank
Date Collected: 05/08/19 12:00
Date Received: 05/08/19 22:00

Lab Sample ID: 480-153242-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 14:57	TJL1	TAL CAN

Client Sample ID: BR-1
Date Collected: 05/09/19 09:10
Date Received: 05/09/19 12:00

Lab Sample ID: 480-153251-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 15:20	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	572331	05/30/19 20:31	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:53	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 15:14	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	570620	05/16/19 11:03	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 16:41	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472992	05/15/19 13:11	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Lab Chronicle

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-12

Lab Sample ID: 480-153251-2

Date Collected: 05/09/19 10:05
Matrix: Water
Date Received: 05/09/19 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 15:42	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		2	572331	05/30/19 20:43	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:57	BCB	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		10	572334	05/30/19 10:23	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 15:18	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	570620	05/16/19 11:03	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 16:59	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472992	05/15/19 13:11	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: Leachate

Lab Sample ID: 480-153251-3

Date Collected: 05/09/19 10:20
Matrix: Water
Date Received: 05/09/19 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 16:04	TJL1	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		2	572331	05/30/19 20:56	UI	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1	572334	05/30/19 04:34	BCB	TAL SAV
Total Recoverable	Prep	3005A			572091	05/28/19 16:56	AJR	TAL SAV
Total Recoverable	Analysis	6010C		10	572334	05/30/19 10:13	BCB	TAL SAV
Total/NA	Prep	7470A			570686	05/16/19 15:44	BCB	TAL SAV
Total/NA	Analysis	7470A		1	570904	05/17/19 15:22	BCB	TAL SAV
Total/NA	Analysis	410.4-1993 R2.0		1	570620	05/16/19 11:03	JER	TAL SAV
Total/NA	Analysis	5310 B-2011		1	571955	05/24/19 17:15	KDM	TAL SAV
Total/NA	Analysis	SM 2540C		1	472992	05/15/19 13:11	CSS	TAL BUF
Total/NA	Analysis	SM 3500 CR B		1	472224	05/10/19 08:10	CLT	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-153251-4

Date Collected: 05/09/19 08:30
Matrix: Water
Date Received: 05/09/19 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381987	05/19/19 16:27	TJL1	TAL CAN

Client Sample ID: MW-3R

Lab Sample ID: 480-153677-1

Date Collected: 05/17/19 14:30
Matrix: Water
Date Received: 05/17/19 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	473547	05/18/19 07:46	SMH	TAL BUF

Lab Chronicle

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Client Sample ID: MW-14N

Lab Sample ID: 480-153677-2

Date Collected: 05/17/19 13:40

Matrix: Water

Date Received: 05/17/19 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	473547	05/18/19 07:46	SMH	TAL BUF

Client Sample ID: MW-5R

Lab Sample ID: 480-153677-3

Date Collected: 05/17/19 13:00

Matrix: Water

Date Received: 05/17/19 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	473547	05/18/19 07:46	SMH	TAL BUF

Client Sample ID: SW-1

Lab Sample ID: 480-153677-4

Date Collected: 05/17/19 12:30

Matrix: Water

Date Received: 05/17/19 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	473547	05/18/19 07:46	SMH	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19 *
Illinois	NELAP	5	200004	07-31-19 *
Iowa	State Program	7	421	06-01-21
Kansas	NELAP	7	E-10336	04-30-20
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19 *
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19 *
New York	NELAP	2	10975	03-31-20
Ohio VAP	State Program	5	CL0024	09-06-19 *
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19 *
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

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

Accreditation/Certification Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Laboratory: Eurofins TestAmerica, Savannah

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

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-19 *
Alaska	State Program	10		06-30-19 *
Alaska (UST)	State Program	10	UST-104	09-22-19
ANAB	DoD		L2463	09-22-19
ANAB	ISO/IEC 17025		L2463.01	09-22-19
Arizona	State Program	9	AZ0808	12-14-19
Arkansas DEQ	State Program	6	88-0692	02-01-20
California	State Program	9	2939	06-30-19 *
Colorado	State Program	8	N/A	12-31-19
Connecticut	State Program	1	PH-0161	03-31-21
Florida	NELAP	4	E87052	06-30-19 *
GA Dept. of Agriculture	State Program	4	N/A	06-12-19
Georgia	State Program	4	N/A	06-30-19 *
Georgia	State Program	4	803	06-30-19 *
Guam	State Program	9	15-005r	04-17-20
Hawaii	State Program	9	N/A	06-30-19
Illinois	NELAP	5	200022	11-30-19
Indiana	State Program	5	N/A	06-30-19 *
Iowa	State Program	7	353	06-30-19 *
Kentucky (DW)	State Program	4	90084	12-31-19
Kentucky (UST)	State Program	4	18	06-30-19
Kentucky (WW)	State Program	4	90084	12-31-19
Louisiana	NELAP	6	30690	06-30-19 *
Louisiana (DW)	NELAP	6	LA160019	12-31-19
Maine	State Program	1	GA00006	09-25-20
Maryland	State Program	3	250	12-31-19
Massachusetts	State Program	1	M-GA006	06-30-19 *
Michigan	State Program	5	9925	06-30-19
Mississippi	State Program	4	N/A	06-30-19 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-19 *
New Jersey	NELAP	2	GA769	06-30-19 *
New Mexico	State Program	6	N/A	06-30-19 *
New York	NELAP	2	10842	04-01-20
North Carolina (DW)	State Program	4	13701	07-31-19
North Carolina (WW/SW)	State Program	4	269	12-31-19
Oklahoma	State Program	6	9984	08-31-19
Pennsylvania	NELAP	3	68-00474	06-30-19 *
Puerto Rico	State Program	2	GA00006	01-01-20
South Carolina	State Program	4	98001	06-30-19 *
Tennessee	State Program	4	TN02961	06-30-19 *
Texas	NELAP	6	T104704185-16-9	11-30-19
Texas (DW)	State Program	1	T104704185	06-30-19 *
US Fish & Wildlife	Federal		LE058448-0	07-31-19
Virginia	NELAP	3	460161	06-14-19 *
Washington	State Program	10	C805	06-10-19 *
West Virginia (DW)	State Program	3	9950C	12-31-19
West Virginia DEP	State Program	3	094	06-30-19 *
Wisconsin	State Program	5	999819810	08-31-19
Wyoming	State Program	8	8TMS-L	06-30-16 *

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

Method Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
410.4-1993 R2.0	COD	MCAWW	TAL SAV
5310 B-2011	Organic Carbon, Total (TOC)	SM	TAL SAV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 3500 CR B	Chromium, Hexavalent	SM	TAL BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SAV
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: LAN Associates Inc
Project/Site: Witmer Road G/W

Job ID: 480-153242-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-153242-1	MW-3R	Water	05/08/19 16:15	05/08/19 22:00	
480-153242-2	MW-14N	Water	05/08/19 14:45	05/08/19 22:00	
480-153242-3	MW-5R	Water	05/08/19 13:25	05/08/19 22:00	
480-153242-4	SW-1	Water	05/08/19 13:40	05/08/19 22:00	
480-153242-5	Trip Blank	Water	05/08/19 12:00	05/08/19 22:00	
480-153251-1	BR-1	Water	05/09/19 09:10	05/09/19 12:00	
480-153251-2	MW-12	Water	05/09/19 10:05	05/09/19 12:00	
480-153251-3	Leachate	Water	05/09/19 10:20	05/09/19 12:00	
480-153251-4	Trip Blank	Water	05/09/19 08:30	05/09/19 12:00	
480-153677-1	MW-3R	Water	05/17/19 14:30	05/17/19 15:45	
480-153677-2	MW-14N	Water	05/17/19 13:40	05/17/19 15:45	
480-153677-3	MW-5R	Water	05/17/19 13:00	05/17/19 15:45	
480-153677-4	SW-1	Water	05/17/19 12:30	05/17/19 15:45	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: TB	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-129552-16534.1
Client Contact: Gary Joiner	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:
Address: PO BOX 217	Due Date Requested:			
City: Calvert City	TAT Requested (days):			
State, Zip: KY, 42029				
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required			
Email: gjoiner@ccmetals.com	WO #:			
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429			
Site: New York	SSOW#:			

Analysis Requested

480-153242 Chain of Custody

hydrate

I - Ice
J - DI Water
K - EDTA
L - EDA
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	SM5310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	A	N	N	N		
MW-3R	5/8/19	1615	G	Water			1	1	1	2	3	1	0	1		
MW-14N	5/8/19	1445	G	Water			1	1	1	2	3	1	0	1		
MW-5R	5/8/19	1325	G	Water			1	1	1	2	3	1	0	1		
SW-1	5/8/19	1340	G	Water			1	1	1	2	3	1	0	1		
Trip Blank	5/8/19	1200	G	Water							2					

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5-8-19 / 2200	TAL		5/8/19 2200	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		#1 2.9

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: TB	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-129552-16534.1
Client Contact: Gary Joiner	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:

Address: PO BOX 217	Due Date Requested:
City: Calvert City	TAT Requested (days):
State, Zip: KY, 42029	
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required
Email: gjoiner@ccmetals.com	WO #:
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429
Site: New York	SSOW#:

Analysis Requested

480-153251 Chain of Custody

3

Decahydrate

I - Ice
J - DI Water
K - EDTA
L - EDA
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Br, Cl, SO4	410.4 - Chemical Oxygen Demand	6010C, 7470A	SM5310D - TOC	8260C - TCL list OLM04.2	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,Turb	3500_CR_B - Cr (VI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	A	N	N	N		
BR-1	5/9/19	0910	G	Water			1	1	1	2	3	1	0	1		
MW-12	5/9/19	1005	G	Water			1	1	1	2	3	1	0	1		
Leachate	5/9/19	1020	G	Water			1	1	1	2	3	1	0	1		
Trip Blank	5/9/19	0830	G	Water							2					

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-9-19 / 1200	TAL	[signature]	5/9/19 1200	TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1 #1

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: TB	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-129552-16534.1
Client Contact: Gary Joiner	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: CC Metals and Alloys LLC				Job #:

Address: PO BOX 217	Due Date Requested:
City: Calvert City	TAT Requested (days):
State, Zip: KY, 42029	
Phone: 904-343-3087(Tel) 904-824-0726(Fax)	PO #: Purchase Order not required
Email: gjoiner@ccmetals.com	WO #:
Project Name: Witmer Road G/W/ Event Desc: Witmer Road G/W	Project #: 48003429
Site: New York	SSOW#:

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	3500_CR_B - Cr (VI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-3R	5/17/19	1430	G	Water			1		
MW-14N	5/17/19	1340	G	Water			1		
MW-5R	5/17/19	1300	G	Water			1		
SW-1	5/17/19	1230	G	Water			1		

480-153677 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 5-17-19/1545	Company TAL	Received by:	Date/Time: 05/17/19 1545	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 7.6 #1 BlueICE

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

0.8/Co.6

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-49710.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-153242-1
Address: 4101 Shuffel Street NW, ,	Due Date Requested: 5/22/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:						MS
MW-3R (480-153242-1)	5/8/19	16:15 Eastern		Water			X	3	
MW-14N (480-153242-2)	5/8/19	14:45 Eastern		Water			X	3	
MW-5R (480-153242-3)	5/8/19	13:25 Eastern		Water			X	3	
SW-1 (480-153242-4)	5/8/19	13:40 Eastern		Water			X	3	
Trip Blank (480-153242-5)	5/8/19	12:00 Eastern		Water			X	1	

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

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

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

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	5-14-19 1555	TAL			
Relinquished by:	Date/Time:	Company	Received by: DC8	5-16-19 940	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client ETA Site Name _____ Cooler unpacked by: Ryan Cribley

Cooler Received on 5-15-19 Opened on 5-16-19 940

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) (Foam) (Plastic Bag) None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.2** °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 0.6 °C
   IR GUN #36 (CF **+0.7**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	(Yes)	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC984738**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-49726.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-153242-1
Address: 4101 Shuffel Street NW,	Due Date Requested: 5/22/2019			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:						MS
BR-1 (480-153251-1)	5/9/19	09:10 Eastern		Water			X	3	
MW-12 (480-153251-2)	5/9/19	10:05 Eastern		Water			X	3	
Leachate (480-153251-3)	5/9/19	10:20 Eastern		Water			X	3	
Trip Blank (480-153251-4)	5/9/19	08:30 Eastern		Water			X	2	

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

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

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		5-15-19 1600	AB		5/16/19 930	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client TA Buffalo Site Name _____ Cooler unpacked by: SC

Cooler Received on 5/16/19 Opened on 5/16/19

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.2** °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.2 °C
   IR GUN #36 (CF **+0.7**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC984738**
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-49724.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-153242-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 5/21/2019			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3005A (MOD) Local Method	7470A/7470A_Prep	SM5310_TOC_B/ (MOD) Local Method	410.4	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
MW-3R (480-153242-1)	5/8/19	16:15 Eastern		Water			X	X	X	X	X	5	
MW-14N (480-153242-2)	5/8/19	14:45 Eastern		Water			X	X	X	X	X	5	
MW-5R (480-153242-3)	5/8/19	13:25 Eastern		Water			X	X	X	X	X	5	
SW-1 (480-153242-4)	5/8/19	13:40 Eastern		Water			X	X	X	X	X	5	

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

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

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5-14-19 1720			5-15-19 0918	TAL BUF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5/2.6

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-49725.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: judy.stone@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-153242-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 5/21/2019			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Witmer Road G/W	Project #: 48003429			
Site: Witmer Road GW Annual Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3005A (MOD) Local Method	7470A/7470A_Prep	SM5310_TOC_B/ (MOD) Local Method	410.4	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BR-1 (480-153251-1)	5/9/19	09:10 Eastern		Water			X	X	X	X	X	5	
MW-12 (480-153251-2)	5/9/19	10:05 Eastern		Water			X	X	X	X	X	5	
Leachate (480-153251-3)	5/9/19	10:20 Eastern		Water			X	X	X	X	X	5	

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

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

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-14-19 1720	[illegible]	[signature]	5-15-19 0919	TAL BUF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5/2.6

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: LAN Associates Inc

Job Number: 480-153242-1

Login Number: 153242

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Harper, Marcus D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TAL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: LAN Associates Inc

Job Number: 480-153242-1

Login Number: 153242
List Number: 2
Creator: Nobles, Terry G

List Source: Eurofins TestAmerica, Savannah
List Creation: 05/15/19 12:37 PM

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

Login Sample Receipt Checklist

Client: LAN Associates Inc

Job Number: 480-153242-1

Login Number: 153251

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Harper, Marcus D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TAL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: LAN Associates Inc

Job Number: 480-153242-1

Login Number: 153251
List Number: 2
Creator: Nobles, Terry G

List Source: Eurofins TestAmerica, Savannah
List Creation: 05/15/19 12:37 PM

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

Login Sample Receipt Checklist

Client: LAN Associates Inc

Job Number: 480-153242-1

Login Number: 153677

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Kolb, Chris M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Yes: Received same day of collection; chilling process has begun
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TESTAMERICA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

APPENDIX 6

Landfill Inspection Checklist

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

Date November 4 , 2019
Weather Conditions Partly Cloudy/ 42 º F
Inspector Sara Santarelli

Landfill Cover

1) Observe any areas on the cover that indicate signs of subsidence (e.g., obvious visible low spots on the cover surface where significant amounts of standing water can accumulate in puddles during significant precipitation events, check for the presence of large cracks on the surface of the cover, etc.).

Prior to the inspection the area had been mowed on 10/23/2019 and 10/24/2019. No large subsidences were noted; however recent rain events lead to some standing water on the property. The grass had about 4"-6" standing.

2) Check for erosional swales, washouts, etc. in the landfill cover caused by stormwater runoff.

There were no washouts or other disturbances observed. The vegetation cover was in good condition.

3) Inspect landfill vegetative cover for overall health and consistency. (e.g. check for bare spots in the vegetative cover.)

The vegetative cover is in good condition. Due to recent freezes the ground cover is dead in spots, as expected.

4) Inspect vegetative cover for existence of unwanted woody species or the abnormal growth of weeds that may out-compete the natural vegetation.

The vegetative cover consists primarily of grasses. These grasses are in good condition. There are a few trees that have intertwined to the fencing, which will be addressed with the removal of old dilapidated fencing.

Monitoring Wells and Sampling Locations

1) Check the general condition of the individual monitoring wells; make sure the bollards are intact (have not been knocked over by a vehicle), check for cracks on the concrete pad (monitor any minor cracks to ensure they do not widen and compromise the pad's integrity otherwise repairs may be necessary), make sure that the padlocks are in working condition (not stiff when unlocking the padlock), make sure that the plug on the PVC riser is present and that the threads are in good condition.

The monitoring wells were inspected. They are all in good condition.

2) Inspect the drainage flow control valve and piping system for functionality and condition (SW-1).

Drainage control valve was inspected. It is in good condition. The pipe structure is in good condition, however, the sandbags protecting the valve are falling apart and need to be replaced

3) Inspect the sump collection tank for cracks or any visible problems that may effect the integrity of the system (LS-1)

The sump collection tank was inspected. It was in good condition, and the cattails around the sump collection tank had been removed.

Surface Water Drainage

1) Inspect the overall function of the surface water drainage system. Look for signs of erosion or subsidence that could lead to offsite surface water drainage or pooling water onsite.

The drainage for the overall site is in excellent condition. Prior to the inspection there had been significant rainfall, and there was limited to no standing water in low spots around the property.

2) Check all stormwater drainage systems (e.g. piping, manholes, drains) for overall function. Make sure there are no blockages or diversions.

The piping which is used for interconnecting the various drainage swales and storage impoundment areas was all in good condition.

Property

1) Check the condition of fences and gates throughout the property.

The fences were all inspected. The fencing dividing the property from Imerys on the western section of the property has been damaged in multiple spots, and the gate was not locked. The front fence of the property (NW) is old and rusted, the gate was locked and in working condition. It is recommended that new fencing be implemented along the northwerstern and western sections of the property.

2) Conduct a thorough investigation of the entire site for any areas of concern.

As noted above, three sections of fence need to be replaced, and a new lock on the gate that divides Imerys from the Witmer property. Sections of fence along the northern property boundary need to be fixed and replaced.

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

Date November 4 , 2019

Weather Conditions Partly Cloudy/ 42 º F

Inspector Sara Santarelli

CC Metals and Alloys, LLC
Checklist of Recommended Corrective Actions

Item Number	Item	Action Taken	Date of Correction	Signature

APPENDIX 7

Photographic Documentation

LAN ASSOCIATES, INC.
CONSULTING • ENGINEERING • PLANNING

2017 Photograph Documentation

Witmer Road Post Annual Mowing & Maintenance

11/07/17 SNS

From SW of cell 1 looking SW

11/07/17 SNS

From S of cell 1 looking E/SE

11/07/17 SNS

Top of cell 1 looking E over cell 2

11/07/17 SNS

Swale between cell 1 & 2

11/07/17 SNS

Top of cell 2 looking E

11/07/17 SNS

Top of cell 2 looking NE

11/07/17 SNS

Top of cell 2 looking NW over cell 1

11/07/17 SNS

Culvert with sand bags (SW-1)

11/07/17 SNS

Sump collection tank (LS-1)

11/07/17 SNS

SE fence line

11/07/17 SNS

From NE of cell 2 looking N

11/07/17 SNS

MW-5R looking E/ SE

11/07/17 SNS

MW- 5R looking W

11/07/17 SNS

MW-BR1

11/07/17 SNS

MW- 14N

11/07/17 SNS

MW-3R

LAN ASSOCIATES, INC.
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2018 Photograph Documentation

Witmer Road Post Annual Mowing & Maintenance

10/04/18 GVD

From the South Looking North at Cell #2

10/04/18 GVD

Southeast Side of Site Looking East

10/04/18 GVD

Southeast Side of Site Looking West

10/04/18 GVD

Northern Fence Line looking East

10/04/18 GVD

Cell #2 with minor vegetation

LAN ASSOCIATES, INC.
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2019 Photographic Documentation

Witmer Road Post Annual Mowing & Maintenance

From the Southwest of cell 1 looking SW

From the cell 2 looking N

From the south looking at cell 2

Storm water drainage system no standing water

Culvert with sand bags (SW-1)

Sump Collection Tank (LS-1)

MW-5R

MW-BR1

MW-14N

MW-3R