



**CONESTOGA-ROVERS  
& ASSOCIATES**

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September 30, 2013

Reference No. 631028

Mr. David Szymanski  
NEW YORK STATE DEPARTMENT  
OF ENVIRONMENTAL CONSERVATION  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Dear Mr. Szymanski:

Re: Annual Periodic Review  
Former NL Industries Site No. C-915200

Conestoga-Rovers & Associates (CRA), on behalf of Norampac Industries, a division of Cascades, Inc., is submitting the attached Institutional and Engineering Controls Certification Form for the Former NL Industries Site (Site) in Depew, New York. In addition, the annual Periodic Review Report (PRR) is provided under separate cover. The report presents the results of the annual inspection conducted at the Site in September 2013 and the annual monitoring conducted in August 2013. The monitoring results demonstrate that groundwater conditions are stable since the monitoring program began in 2010 and that the remedial measures have been effective.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Yours truly,  
CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to read "Katherine B. Galanti".

Katherine B. Galanti  
Project Manager

Encl.

c.c.: L. Marineau (Cascades)  
R. Adams (CRA)

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Equal  
Employment Opportunity  
Employer

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REGISTERED COMPANY FOR  
**ISO 9001**  
ENGINEERING DESIGN



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



**Site No.** C915200

**Site Details**

**Box 1**

**Site Name** Former NL Industries Foundry

Site Address: 3241 Walden Avenue Zip Code: 14043  
City/Town: Cheektowaga  
County: Erie  
Site Acreage: 7.5

Reporting Period: August 31, 2012 to August 31, 2013

YES      NO

1. Is the information above correct?

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?

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

**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?

**Box 2**

YES      NO

6. Is the current site use consistent with the use(s) listed below?  
Commercial and Industrial

7. Are all ICs/ECs in place and functioning as designed?

**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

Date

**Box 2A**

YES      NO



8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)



If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

**SITE NO. C915200****Box 3****Description of Institutional Controls**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
---------------	--------------	------------------------------

104.09-5-1	Norampac Industries Inc.	
------------	--------------------------	--

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

[For details- see Section 5 in the Site Management Plan, dated October 16, 2009]

Environmental Easement is included in the FER in Appendix E. The Easement was recorded with the Erie County clerk on 12/1/2009.

- (i) Prohibition of groundwater use.
- (ii) Restrictions on property use.
- (iii) Maintenance of cover on the containment cell.
- (iv) Maintenance of asphalt cover over trucking yard, eastern parking lot, and rail siding areas.
- (v) Maintenance of concrete cover in the building and apron areas.

**Box 4****Description of Engineering Controls**

<u>Parcel</u>	<u>Engineering Control</u>
---------------	----------------------------

104.09-5-1	Cover System Fencing/Access Control
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**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

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

**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

---

Date

IC CERTIFICATIONS  
SITE NO. C915200

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 ROBERT G. ADAMS at CRA INFRASTRUCTURE & ENGINEERING  
print name 285 DELAWARE AVE, BUFFALO NY,  
print business address 14202  
am certifying as OWNER'S REPRESENTATIVE (Owner or Remedial Party)

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

Robert G. Adams

Signature of Owner, Remedial Party, or Designated Representative

Rendering Certification

9/27/13

Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer 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 ROBERT G. ADAMS  
print name

at CRA INFRASTRUCTURE & ENGINEERING  
285 DELAWARE AVE, BUFFALO, NY  
print business address

1420:

am certifying as a Professional Engineer for the

OWNER

(Owner or Remedial Party)

Robert G. Adams

Signature of Professional Engineer, for the Owner or  
Remedial Party, Rendering Certification

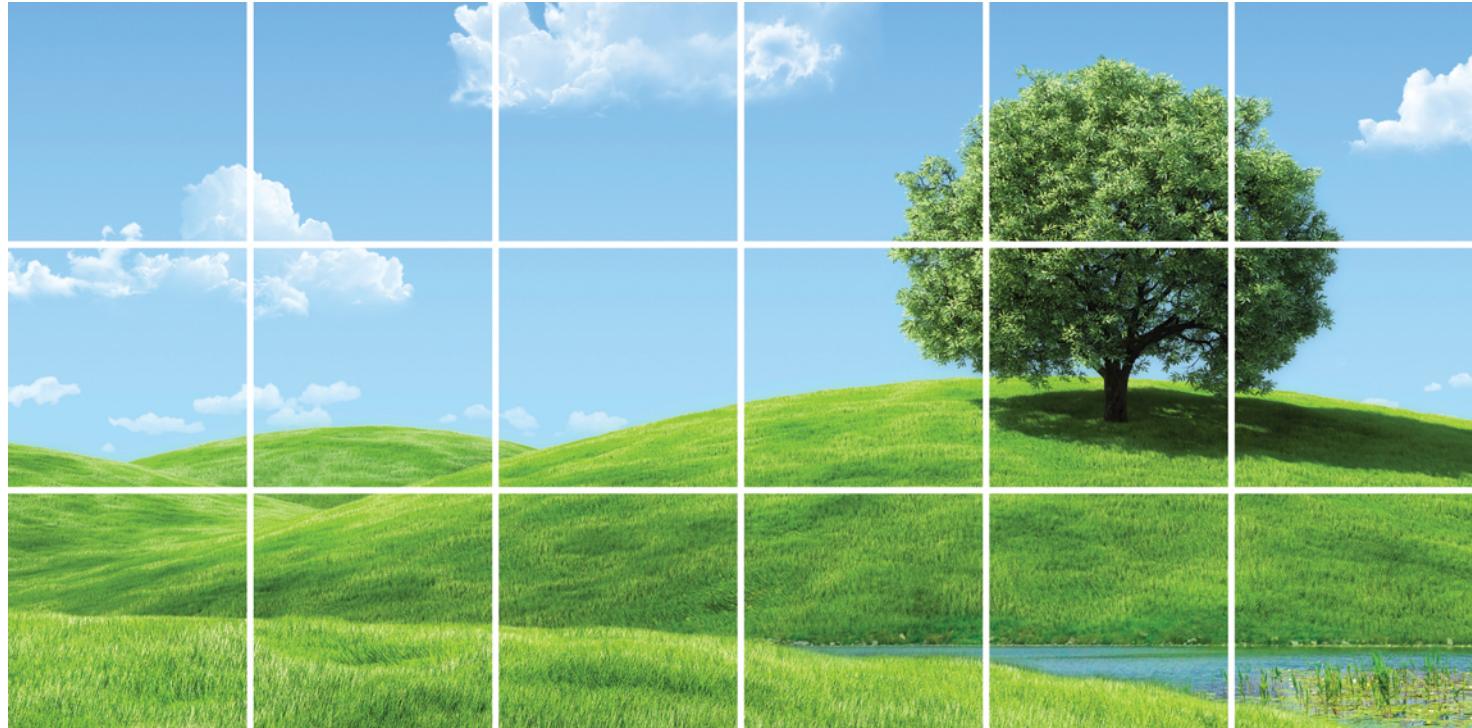


9/27/13

Date



[www.CRAworld.com](http://www.CRAworld.com)



## REPORT

# 2013 PERIODIC REVIEW REPORT

Former NL Industries Site  
3241 Walden Avenue  
Depew, New York

Prepared for: Cascades, Inc.

**Conestoga-Rovers & Associates**  
285 Delaware Avenue, Suite 500  
Buffalo, New York 14202

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## **1.0 INTRODUCTION**

The former NL Industries facility (Site) is located at 3241 Walden Avenue in Depew, New York (Figure 1.1). The property and facility are currently owned by Norampac Industries, Inc., a division of Cascades, Inc. (Cascades), and operated by Metro Waste Paper Recovery, Inc. Remediation of the Site was completed in 2008 under the oversight of the New York State Department of Environmental Conservation (NYSDEC) in accordance with Brownfield Cleanup Agreement (BCA) Index #B9-0554-98-12, Site #C-915200. A Site Management Plan (SMP) was developed upon completion of the remedial construction to ensure implementation and management of the institutional controls (ICs) and engineering controls (ECs) in place at the Site. This Periodic Review Report (PRR) is being prepared to certify that site management activities are being conducted in accordance with the SMP.

The final remedial alternative for the Site, as described in the SMP dated October 2009, included the following components:

- i) Excavation of impacted soils from the western section of the Site and consolidation within a containment cell constructed within the central portion of the Site.
- ii) Capping of the containment cell with imported clean fill, geo-synthetic clay liner (GCL), and soil/vegetative or asphalt cover.
- iii) Construction of a GCL and soil cover system on all non-paved areas of the containment cell (i.e., side slopes).
- iv) Construction of a GCL and asphalt cover system on all paved areas of the containment cell.
- v) Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to remaining impacted materials for the central and eastern portions of the Site.
- vi) Development and implementation of a SMP for long-term management of the ECs/ICs at the Site.

The SMP, designed to serve as a work plan for Site monitoring and maintenance, was prepared and approved by NYSDEC in December 2009.

This report presents the results of the groundwater monitoring event conducted in August 2013, the Site inspection conducted in September 2013, and recordkeeping conducted through August 2013. The report is organized as follows:

- Section 1 – Introduction: The background and brief remedial history of the Site.
- Section 2 – Engineering and Institutional Controls: The ECs/ICs for this Site are described.
- Section 3 – Inspections and Maintenance Activities: Activities performed during the current reporting period and their results.
- Section 4 – Groundwater Monitoring: Discussion of groundwater monitoring data and analytical results generated from the current monitoring period.
- Section 5 – Conclusions and Recommendations: Conclusions and recommendations based upon the data and results of the current monitoring period.

## **2.0 ENGINEERING AND INSTITUTIONAL CONTROLS**

Engineering controls are required to protect human health and the environment because impacted fill is still present below various structures at the Site. Figure 2.1 shows the Site layout, and Figure 2.2 shows the various EC systems in place at the Site.

### **2.1 ENGINEERING CONTROLS (ECs)**

The purpose of the EC systems is to eliminate the potential for human contact with fill material, prevent percolation of precipitation through the impacted fill, and eliminate the potential for contaminated runoff from the Site. The EC systems in place at the Site consist of the following:

- **Asphalt Only**: The trucking yard within the eastern section of the Site was paved in 2004 and is covered by 4.5 inches of sub-base material and 6 inches of asphalt (4.5 inches binder coat and 1.5 inches top coat). The eastern parking lot was historically paved with asphalt for employee parking. In addition, the area identified as the “rail siding area” was paved with 6 inches of asphalt (4 inches binder coat and 2 inches top coat) in August 2008.
- **Building and Apron Concrete**: The concrete floor of the existing building and exterior concrete pads/aprons are believed to be a minimum of 6 inches in thickness.
- **GCL and Soil**: All non-paved areas (side slopes of the containment cell) of the containment cell are covered by approximately 12 inches of clean soil underlain by a GCL covering with a 6-inch sand layer between the GCL and impacted fill. All exposed environmentally clean soil/fill has been hydro seeded as an erosion control methodology.
- **GCL and Asphalt**: All paved areas of the central section containment cell are covered by 6 inches of asphalt (4 inches binder coat and 2 inches top coat) underlain by 12 inches of clean fill, followed by a GCL covering with a 6-inch sand layer between the GCL and the impacted fill.

### **2.2 INSTITUTIONAL CONTROLS (ICs)**

The purpose of the ICs is to:

- i) Implement, maintain, and monitor the ECs.
- ii) Prevent future exposure to remaining on-Site contamination by controlling disturbance of the subsurface contamination.

iii) Limit the use and development of portions of the Site to industrial uses only.

The ICs that have been established for the Site must be:

- In compliance with the Environmental Easement and the SMP by the Grantor (currently Norampac, Inc.) and the Grantor's successors and assigns.
- Operated and maintained as specified in the SMP.
- Inspected at a frequency and in a manner defined in the SMP.

Data and information pertinent to management of the Site must be reported at the frequency and in a manner defined in the SMP.

Adherence to the ICs is required by the Environmental Easement. The ICs may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

In addition, the Site has a series of ICs in the form of site restrictions as required by the Environmental Easement. Site restrictions that apply to the Site are:

- The central and eastern portions of the property may only be used for commercial/industrial purposes provided that the long-term ECs/ICs included in the SMP are employed.
- The central and eastern portions of the property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining impacted material must be conducted in accordance with the SMP.
- The Site owner or remedial party will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP.
- The groundwater beneath the central and eastern sections of the property may not be used for potable or non-potable purposes.

### **3.0 INSPECTIONS AND MAINTENANCE ACTIVITIES**

A comprehensive Site-wide inspection is required to be conducted annually in the spring, as specified in the SMP. The intent of the annual inspection is to determine whether:

- i) The ECs continue to perform as designed.
- ii) The ECs continue to be protective of human health and the environment.
- iii) The Site is operated and maintained in compliance with the SMP and Environmental Easement.
- iv) The remedial performance criteria have been achieved.
- v) Sampling and analysis of appropriate media were conducted.
- vi) Site records are complete and current.
- vii) Changes to the remedial systems or monitoring are needed.

The O&M activities were performed by CRA personnel in accordance with the requirements of the SMP.

The annual comprehensive Site inspection was conducted on September 17, 2013. The following sections discuss the findings of the 2013 inspection. The completed Site Inspection Form is provided as Appendix A to this report.

#### **3.1 ASPHALT ONLY COVER SYSTEM**

The three areas of asphalt only cover consist of the Trucking Yard (west of the main building), Parking Lot (east of the main building), and Former Rail Siding (south of the main building) as shown on Figure 2.2. The areas of asphalt only cover were visually inspected for cracks and deterioration.

##### **3.1.1 TRUCKING YARD**

The asphalt surface in the trucking yard was free of cracks and deterioration and appeared in good condition. The test pit locations excavated in 2009 were repaved in 2011 and are in good condition. Photos of the trucking yard are provided in Appendix B.

### **3.1.2      PARKING LOT**

The Parking Lot is free of cracks and deterioration. Photos of the pavement are provided in Appendix B.

### **3.1.3      FORMER RAIL SIDING**

The Former Rail Siding is currently being used to stage approximately 20 plastic barrels for recycling and a small stockpile of gravel. To the extent accessible, the asphalt cover on the Former Rail Siding was free of cracks and deterioration and appeared in good condition. Photos of the pavement are provided in Appendix B.

### **3.1.4      CORRECTIVE ACTION**

No corrective action is necessary for the asphalt only cover system at this time.

## **3.2            BUILDING AND APRON CONCRETE COVER SYSTEM**

The building floor slab and apron concrete were visually inspected for cracks and deterioration. The concrete surfaces were free of cracks and deterioration and appeared in good condition. Photos of the concrete are provided in Appendix B.

No corrective action is necessary for the building and apron concrete cover system at this time.

## **3.3            GCL AND SOIL COVER SYSTEM**

The GCL and soil cover system was visually inspected as part of the annual comprehensive Site inspection. As noted below in Section 3.7, the vegetative cover had been mowed and the grass was approximately 2 inches in length. No areas of subsidence, erosion, or exposed GCL were observed. Photos of the GCL and soil cover are provided in Appendix B.

Corrective action is not necessary for the GCL and soil cover system at this time.

### **3.4        GCL AND ASPHALT COVER SYSTEM**

The GCL and asphalt cover system was visually inspected as part of the annual comprehensive Site inspection. No areas of subsidence or exposed GCL were observed. Minor surface indentations caused by tractor trailer supports were noted in the asphalt. The indentations were approximately 0.25 to 0.5 inch in depth, but do not affect the integrity of the cap. Photos of the GCL and asphalt cover are provided in Appendix B.

No corrective action is necessary for the GCL and asphalt cover system at this time.

### **3.5        RETENTION POND**

The retention pond was inspected as part of the annual comprehensive Site inspection, in addition to monthly inspections by Mr. Thomas Derkovitz, Site Manager. At the time of the annual inspection, approximately 9 to 12 inches of standing water was present in the center of the pond, as the water level was below the invert of the outflow pipe. No debris was observed within the retention pond or the outlet pipe. No evidence of erosion was observed along the banks of the pond. Significant plant growth (grasses, phragmites) was observed in the pond.

A gate was installed at the southeast corner of the pond fence enclosure in June 2011 to allow access for mowing and maintenance. The gate is locked to prevent unauthorized access. Photos of the retention pond are provided in Appendix B.

No corrective action is necessary for the retention pond at this time.

### **3.6        FENCING**

The fencing was inspected as part of the annual comprehensive site inspection, in addition to semiannual inspections in spring and fall by Mr. Derkovitz. The fence and fence posts appeared in good condition with no holes in the fence or heaved supports posts. The fence north of the Site along Walden Avenue was constructed with braided wire rather than a top support pole. At the time of the inspection, the wire provided sufficient support for the fence. Photos of the fencing are provided in Appendix B.

No corrective action is necessary for the fence at this time.

### **3.7        VEGETATIVE COVER**

The vegetative cover was inspected as part of the annual comprehensive site inspection, as well as semiannually in spring and fall by Mr. Derkovitz. Grass had not been routinely cut on a monthly basis, but had been cut at the time of inspection. No areas of distressed vegetation, invading species, or woody growth were observed. Photos of the vegetative cover are provided in Appendix B.

No corrective action is necessary for the vegetative cover at this time.

### **3.8        OTHER**

The grass area between the Site fenceline and Walden Avenue was being reworked by the US Environmental Protection Agency during the 2012 inspection as part of a larger, regional soil remediation project associated with the NL Industries Site. Cover material was stripped away and disposed of. Underlying clean soils were then covered with a filter fabric, permeable paver material, soil, and seed mat. This work is complete. This area and work are not part of the annual inspection and certification, but have been mentioned for informational purposes only.

## **4.0 GROUNDWATER MONITORING**

### **4.1 MONITORING WELL INSPECTION**

In accordance with the SMP, monitoring well inspections were conducted in conjunction with the groundwater monitoring event in August 2013. The locations of the groundwater monitoring wells are shown on Figure 4.1. The inspections of the monitoring wells included the condition of well caps, J-plugs, seals, protective pads, and visible portions of the well casings. Monitoring well conditions are noted on the Site Inspection Form presented in Appendix A.

In addition, the open depth of each monitoring well was measured (sounded) prior to purging the well for sampling. The sounded depths and installed screened intervals of each well are presented in Table 4.1. Comparison of these details shows that the screened intervals of all wells are open. The recharge during purging for sampling demonstrates that the presence of the small amounts of observed sediment does not interfere with the flow of groundwater through the wells or sand packs.

All wells were noted to be in good condition with no repairs required at this time.

### **4.2 GROUNDWATER ELEVATION**

As part of the monitoring activities described in the SMP, each monitoring well was gauged before sampling using an electric water level meter. The depth to the top of the groundwater was measured prior to beginning the purging of monitoring wells for sampling. Water level measurements are included in the Groundwater Monitoring Field Forms presented in Appendix C and water level elevations are summarized in Table 4.2. A groundwater contour map is provided as Figure 4.2.

### **4.3 GROUNDWATER SAMPLING**

Groundwater samples were collected using low flow techniques in accordance with the SMP. A sample collection and analysis summary is presented in Table 4.3. The purging parameters are provided on the Groundwater Monitoring Field Forms presented in Appendix C.

#### **4.4        GROUNDWATER DATA EVALUATION**

The groundwater analytical data generated during this reporting period are summarized in Table 4.4. The analytical data report is provided as Appendix D. A quality assurance/quality control (QA/QC) review of the analytical data has been conducted. The Data Usability Summary Report (DUSR) is presented in Appendix E.

Analytical results for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were all either non-detect, or detected at estimated concentrations well below the New York State water quality criteria.

Antimony and lead were detected at monitoring well MW-101 at concentrations of 9.9 µg/L and 26 µg/L respectively, exceeding the New York State water quality criteria for potable groundwater of 3 µg/L for antimony and 25 µg/L for lead. The detections are only slightly above the standards. In addition, iron, magnesium and sodium were detected in monitoring wells MW-102 through MW-106F at concentrations above the New York State water quality criteria of 300 µg/L for iron (standard), 35,000 µg/L for magnesium (guidance value) and 20,000 µg/L for sodium (standard) in potable groundwater. Detections ranged from 320 µg/L to 3,100 µg/L for iron; 58,000 µg/L to 100,000 µg/L for magnesium; and from 54,000 µg/L to 140,000 µg/L for sodium. Iron, magnesium, and sodium are common elements contained in soils and are also typically present in groundwater.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The annual inspection and monitoring activities performed during this reporting period found that:

- i) Monitoring wells at the Site are in good condition.
- ii) The asphalt only, building and apron concrete, GCL and soil, and GCL and asphalt cover systems are in good condition with no deficiencies noted.
- iii) The retention pond, and perimeter fencing were maintained and in good condition.
- iv) VOCs were not detected in the groundwater samples.
- v) SVOCs were either all non-detect or detected at estimated concentrations well below the New York State water quality criteria.
- vi) Antimony and lead were detected at monitoring well MW-101 at concentrations of 9.9 µg/L and 26 µg/L respectively, exceeding the New York State water quality criteria for potable groundwater of 3 µg/L for antimony and 25 µg/L for lead.
- vii) Iron was present in 3 of the 6 monitoring wells, magnesium was present in 5 of the 6 monitoring wells, and sodium was present at all of the Site monitoring wells at concentrations exceeding the New York State water quality criteria for these parameters. Iron, magnesium, and sodium are common elements contained in soils and are also typically present in groundwater.

Based on these observations, it is concluded that the remedial action continues to be effective. No deficiencies were noted and corrective action is not necessary at this time.

## 6.0 CERTIFICATION

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

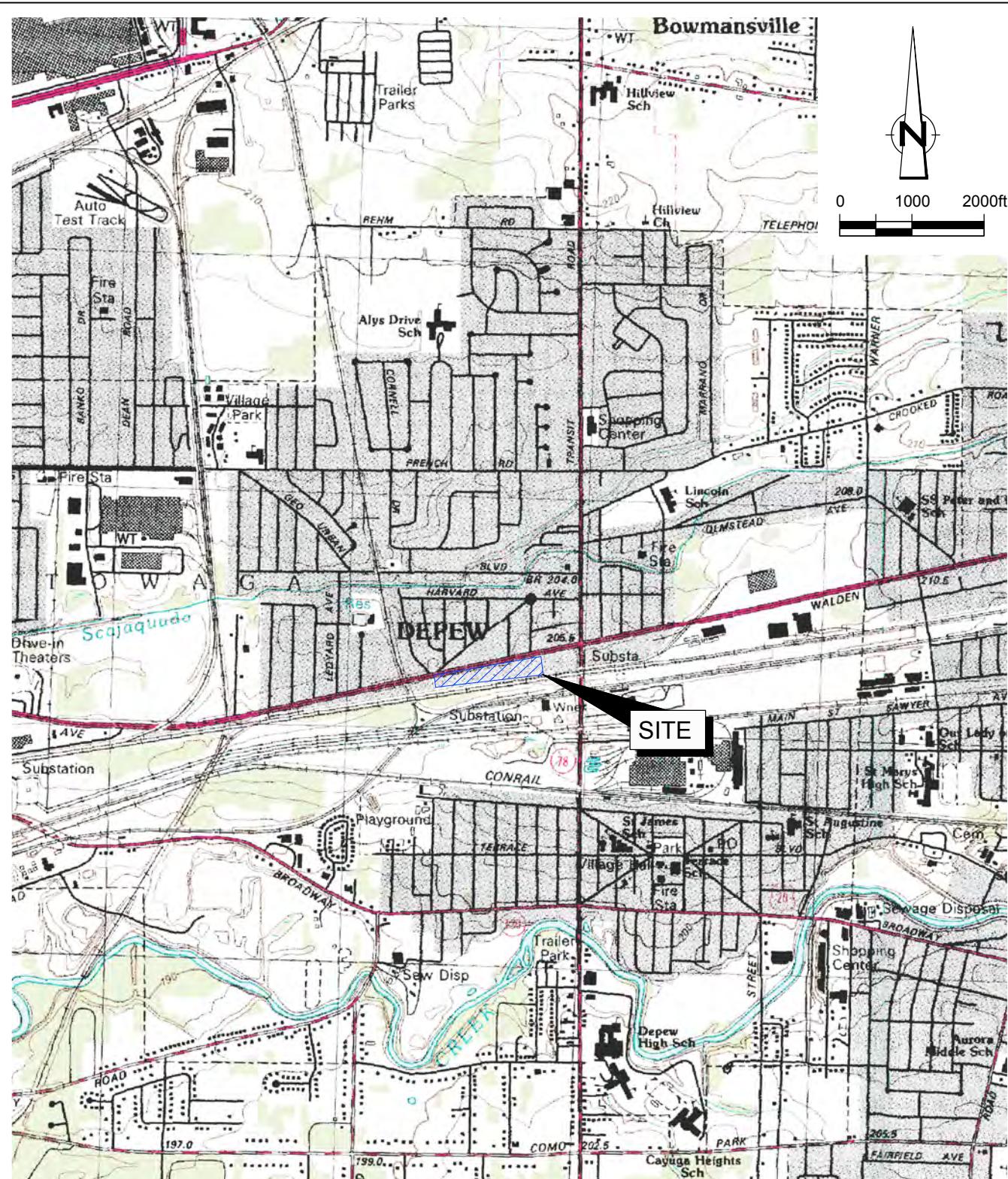
- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction.
- Except as indicated in this report, the institutional controls and/or engineering controls employed at this Site are unchanged from the date the control was put in place, or last approved by the Department.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with the SMP for this control.
- 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.
- Use of the Site is compliant with the environmental easement.
- The engineering control systems are performing as designed and are effective.
- 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.
- The information presented in this report is accurate and complete.

Robert G. Adams, P.E.  
CRA Infrastructure & Engineering, Inc.  
285 Delaware Avenue, Suite 500  
Buffalo, New York 14202



Signature: Robert G. Adams Date: 9/27/13

## FIGURES

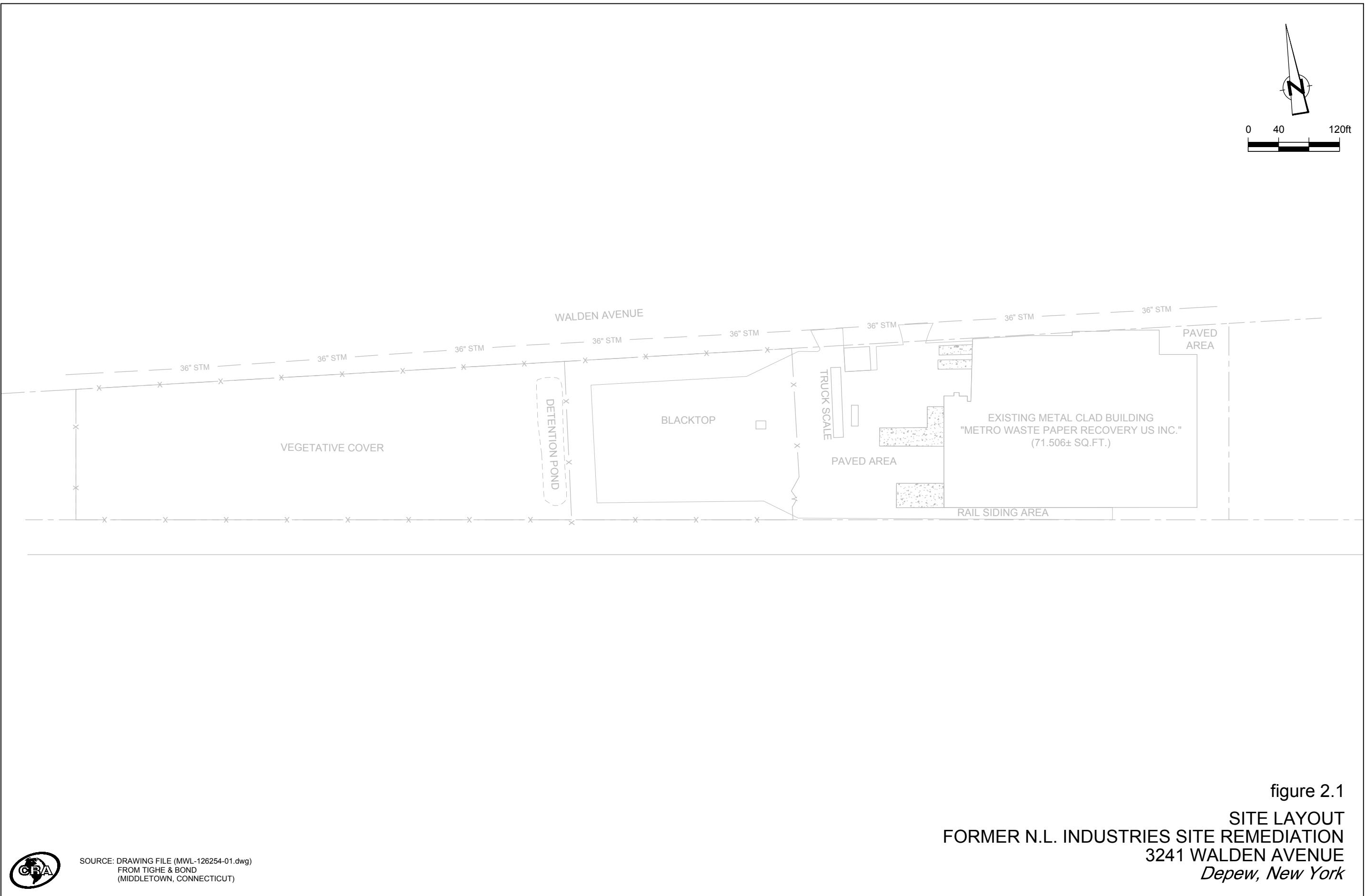


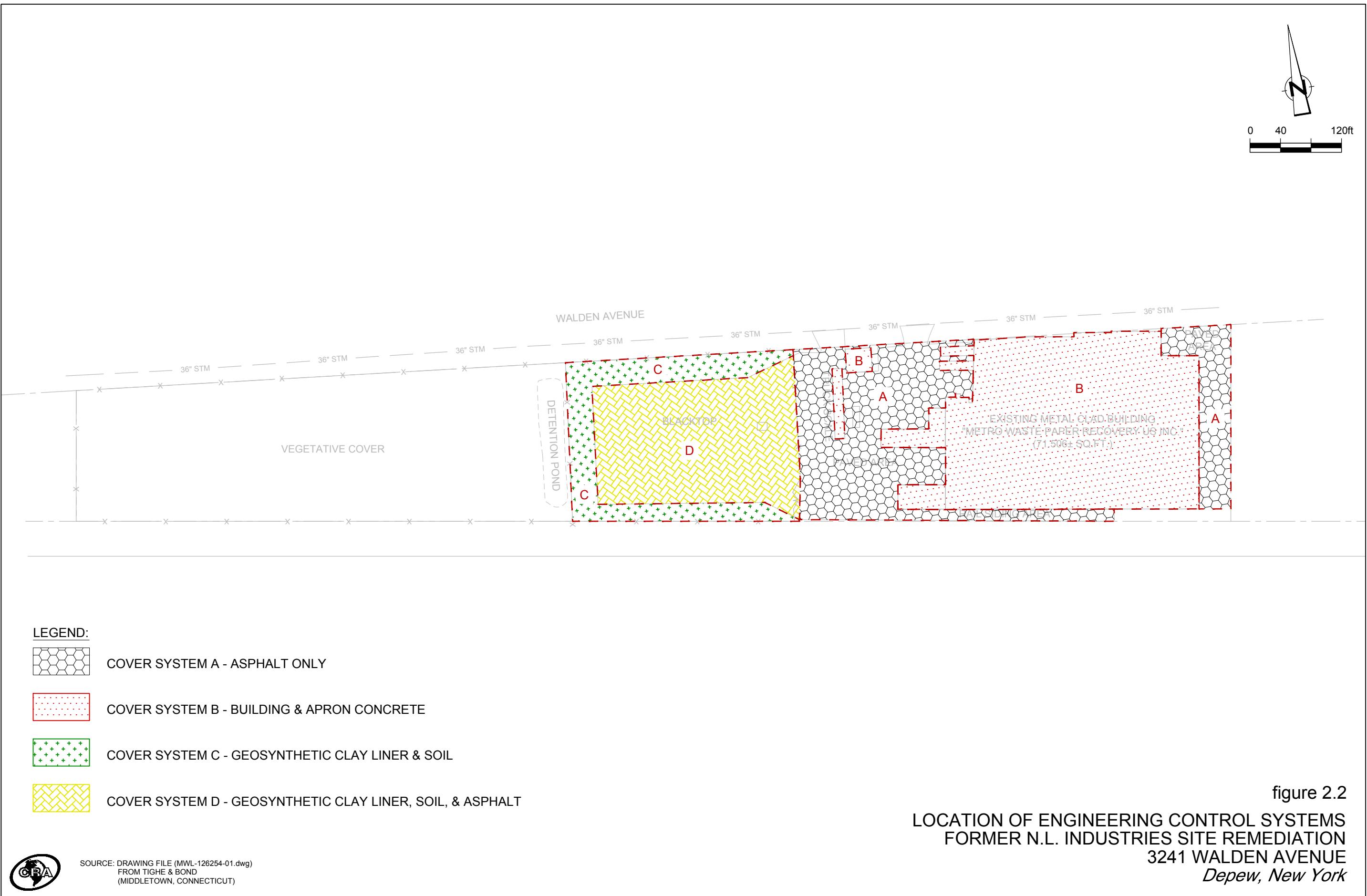
SOURCE : USGS QUADRANGLE MAP:  
LANCASTER, NEW YORK

figure 1.1

**SITE LOCATION MAP  
FORMER N.L. INDUSTRIES SITE REMEDIATION  
3241 WALDEN AVENUE  
*Depew, New York***







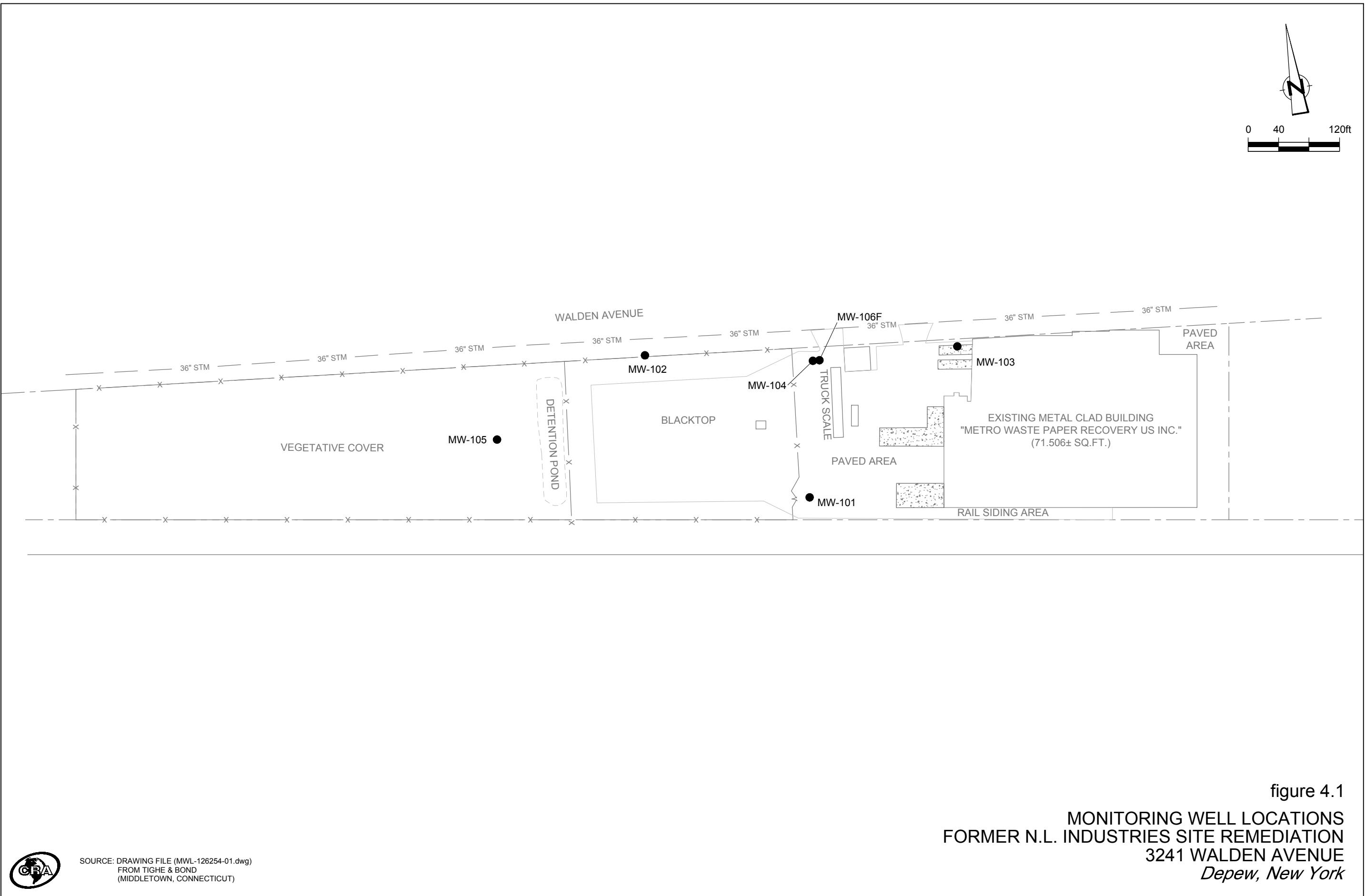
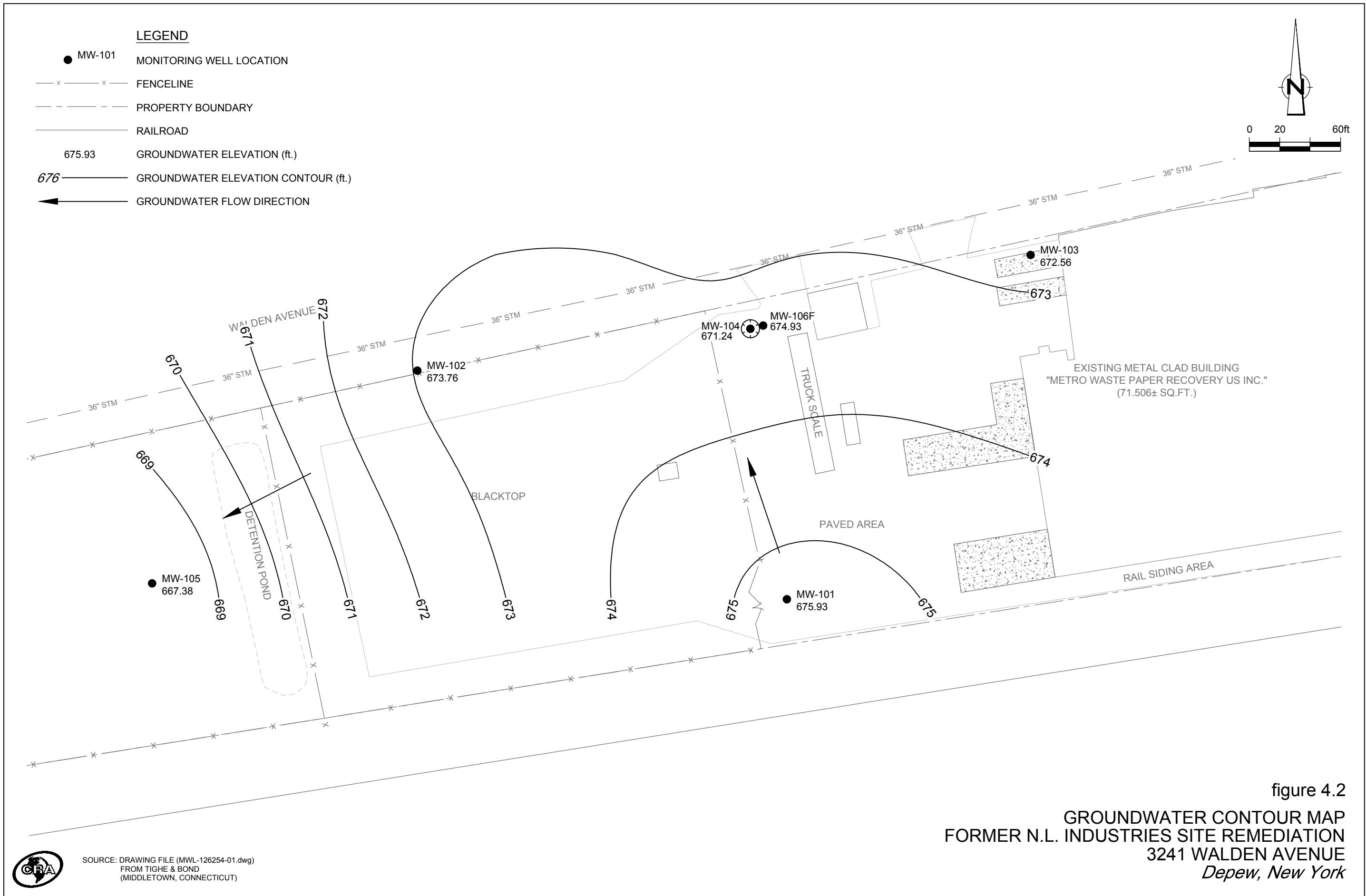


figure 4.1

MONITORING WELL LOCATIONS  
FORMER N.L. INDUSTRIES SITE REMEDIATION  
3241 WALDEN AVENUE  
*Depew, New York*



SOURCE: DRAWING FILE (MWL-126254-01.dwg)  
FROM TIGHE & BOND  
(MIDDLETON, CONNECTICUT)



**figure 4.2**

**GROUNDWATER CONTOUR MAP  
FORMER N.L. INDUSTRIES SITE REMEDIATION  
3241 WALDEN AVENUE  
*Depew, New York***



SOURCE: DRAWING FILE (MWL-126254-01.dwg)  
FROM TIGHE & BOND  
(MIDDLETOWN, CONNECTICUT)

## TABLES

TABLE 4.1

MONITORING WELL MEASUREMENT SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK

<i>Well</i>	<i>Sounded Depth (ft. BTOC)</i>	<i>Screened Interval (ft. BTOC)</i>	<i>Percent Screened Interval Open</i>
MW-101	26.89	17.0 to 27.0	99
MW-102	24.50	15.1 to 25.1	94
MW-103	23.66	17.0 to 27.0	67
MW-104	26.41	17.0 to 27.0	94
MW-105	24.50	16.1 to 26.1	84
MW-106F	10.28	6.05 to 11.05	85

Notes:

BTOC: Below Top of Casing  
Samples were taken in August of 2013

TABLE 4.2

SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK

Well	<i>Ground Elevation</i>	<i>Top of Casing Elevation</i>	<i>Water Level Elevations</i>			
			4/2009	6/2010	8/2012	8/2013
MW-101	678.03	678.03	675.12	676.28	674.71	675.93
MW-102	675.56	676.67	672.21	673.66	672.56	673.76
MW-103	677.57	677.56	672.68	672.81	671.56	672.56
MW-104	677.06	677.06	671.44	671.78	670.88	671.24
MW-105	675.51	675.48	668.87	668.34	663.92	667.38
MW-106F	677.38	677.43	668.9	674.10	672.05	674.93

Notes:

Elevations are referenced to the NVGD datum.

NVGD National Vertical Geodetic Datum.

**TABLE 4.3**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**2013 ANNUAL PERIODIC REVIEW REPORT**  
**FORMER NL INDUSTRIES SITE**  
**NYSDEC SITE NO. C-915200**  
**DEPEW, NEW YORK**

<i>Sample I.D.</i>	<i>Location I.D.</i>	<i>Analysis/Parameters</i>					
		<i>Collection Date</i> (mm/dd/yy)	<i>Collection Time</i> (hr:min)	TCL VOCs	TAL Metals	TCL SVOCs	<i>Comment</i>
WG-631028-080813-001	MW-101	8/8/2013	9:30	X	X	X	
WG-631028-080813-002	MW-102	8/8/2013	11:15	X	X	X	
WG-631028-080813-003	MW-102	8/8/2013	11:15	X	X	X	Field Duplicate of WG-631028-080813-002
WG-631028-080813-004	MW-105	8/8/2013	13:20	X	X	X	
WG-631028-080813-005	MW-104	8/8/2013	10:50	X	X	X	
EB-631028-080813-006	Equipment Blank	8/8/2013	10:00	X	X	X	Equipment Blank
WG-631028-080813-007	MW-103	8/8/2013	12:40	X	X	X	
WG-631028-080813-008	MW-106F	8/8/2013	13:15	X	X	X	
TB-631028-080813	Trip Blank	8/8/2013	-	X			Trip Blank

Note:

- Not applicable.
- TCL Target Compound List.
- TAL Target Analyte List.
- VOCs Volatile Organic Compounds.
- SVOCs Semivolatile Organic Compounds.

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters				Location:	MW-101	MW-102	MW-102
	New York State Water Quality Standards		Units	Sample Name:	WG-631028-080813-001	WG-631028-080813-002	WG-631028-080813-003
	a	b		Sample Date:	8/8/2013	8/8/2013	8/8/2013
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	NC	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	0.0006	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	NC	50	ug/L	10 U	10 U	10 U	10 U
2-Hexanone	NC	50	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NC	NC	ug/L	10 U	10 U	10 U	10 U
Acetone	NC	50	ug/L	10 U	10 U	10 U	10 U
Benzene	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	NC	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	NC	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	60	60	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	7	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

<i>Parameters</i>			<i>Location:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>
	<i>New York State Water Quality Standards</i>	<i>Guidance Values</i>	<i>Sample Name:</i>	<i>WG-631028-080813-001</i>	<i>WG-631028-080813-002</i>	<i>WG-631028-080813-003</i>
	<i>a</i>	<i>b</i>	<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<b>Volatile Organic Compounds (Continued)</b>						
Dibromochloromethane	NC	50	ug/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Methyl acetate	NC	NC	ug/L	10 U	10 U	10 U
Methyl cyclohexane	NC	NC	ug/L	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	NC	10	ug/L	1.0 U	1.0 U	1.0 U
Methylene chloride	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Styrene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Toluene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	NC	NC	ug/L	1.0 U	1.0 U	1.0 U
Trichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	5	NC	ug/L	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	NC	ug/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	NC	NC	ug/L	2.0 U	2.0 U	2.0 U
<b>Semi-volatile Organic Compounds</b>						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	5	NC	ug/L	0.95 U	0.95 U	0.95 U
2,4,5-Trichlorophenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U
2,4-Dichlorophenol	5	NC	ug/L	1.9 U	1.9 U	1.9 U
2,4-Dimethylphenol	NC	50	ug/L	1.9 U	1.9 U	1.9 U
2,4-Dinitrophenol	NC	10	ug/L	4.8 U	4.8 U	4.8 U
2,4-Dinitrotoluene	5	NC	ug/L	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene	5	NC	ug/L	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene	NC	10	ug/L	0.95 U	0.95 U	0.95 U
2-Chlorophenol	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
2-Methylnaphthalene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>
	<i>Sample Date:</i>	<i>Units</i>		<i>WG-631028-080813-001</i>	<i>WG-631028-080813-002</i>	<i>WG-631028-080813-003</i>
	<i>Standards</i>	<i>Guidance Values</i>	<i>a</i>	<i>b</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>Semi-volatile Organic Compounds (Continued)</i>						
2-Methylphenol	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
2-Nitroaniline	5	NC	ug/L	1.9 U	1.9 U	1.9 U
2-Nitrophenol	NC	NC	ug/L	1.9 U	1.9 U	1.9 U
3&4-Methylphenol	5	NC	ug/L	1.9 U	1.9 U	1.9 U
3,3'-Dichlorobenzidine	5	NC	ug/L	4.8 U	4.8 U	4.8 U
3-Nitroaniline	NC	NC	ug/L	1.9 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U
4-Bromophenyl phenyl ether	NC	NC	ug/L	1.9 U	1.9 U	1.9 U
4-Chloro-3-methylphenol	5	NC	ug/L	1.9 U	1.9 U	1.9 U
4-Chloroaniline	NC	NC	ug/L	1.9 U	1.9 U	1.9 U
4-Chlorophenyl phenyl ether	NC	NC	ug/L	1.9 U	1.9 U	1.9 U
4-Nitroaniline	5	NC	ug/L	1.9 U	1.9 U	1.9 U
4-Nitrophenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U
Acenaphthene	NC	20	ug/L	0.19 U	0.19 U	0.19 U
Acenaphthylene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U
Acetophenone	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
Anthracene	NC	50	ug/L	0.19 U	0.19 U	0.19 U
Atrazine	7.5	NC	ug/L	0.95 U	0.95 U	0.95 U
Benzaldehyde	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
Benzo(a)anthracene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U
Benzo(a)pyrene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U
Benzo(b)fluoranthene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U
Benzo(g,h,i)perylene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U
Benzo(k)fluoranthene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U
Biphenyl (1,1-Biphenyl)	5	NC	ug/L	0.95 U	0.95 U	0.95 U
bis(2-Chloroethoxy)methane	5	NC	ug/L	0.95 U	0.95 U	0.95 U
bis(2-Chloroethyl)ether	1	NC	ug/L	0.95 U	0.95 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	5	NC	ug/L	1.9 U	1.9 U	1.9 U
Butyl benzylphthalate (BBP)	NC	50	ug/L	1.9 U	1.9 U	1.9 U
Caprolactam	NC	NC	ug/L	4.8 U	4.8 U	4.8 U
Carbazole	NC	NC	ug/L	0.95 U	0.95 U	0.95 U

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>
	<i>Sample Date:</i>	<i>Units</i>		<i>WG-631028-080813-001</i>	<i>WG-631028-080813-002</i>	<i>WG-631028-080813-003</i>
	<i>Standards</i>	<i>Guidance Values</i>	<i>a</i>	<i>b</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>Semi-volatile Organic Compounds (Continued)</i>						
Chrysene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U
Dibenz(a,h)anthracene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U
Dibenzofuran	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
Diethyl phthalate	NC	50	ug/L	1.9 U	1.9 U	1.9 U
Dimethyl phthalate	NC	50	ug/L	1.9 U	1.9 U	1.9 U
Di-n-butylphthalate (DBP)	50	NC	ug/L	1.9 U	1.9 U	1.9 U
Di-n-octyl phthalate (DnOP)	NC	50	ug/L	1.9 U	1.9 U	1.9 U
Fluoranthene	NC	50	ug/L	0.19 U	0.19 U	0.19 U
Fluorene	NC	50	ug/L	0.19 U	0.19 U	0.19 U
Hexachlorobenzene	0.04	NC	ug/L	0.19 U	0.19 U	0.19 U
Hexachlorobutadiene	0.5	NC	ug/L	0.95 U	0.95 U	0.95 U
Hexachlorocyclopentadiene	5	NC	ug/L	9.5 U	9.5 U	9.5 U
Hexachloroethane	5	NC	ug/L	0.95 U	0.95 U	0.95 U
Indeno(1,2,3-cd)pyrene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U
Isophorone	NC	50	ug/L	0.95 U	0.95 U	0.95 U
Naphthalene	NC	10	ug/L	0.19 U	0.19 U	0.19 U
Nitrobenzene	0.4	NC	ug/L	0.95 U	0.95 U	0.95 U
N-Nitrosodi-n-propylamine	NC	NC	ug/L	0.95 U	0.95 U	0.95 U
N-Nitrosodiphenylamine	NC	50	ug/L	0.95 U	0.95 U	0.95 U
Pentachlorophenol	1	NC	ug/L	4.8 U	4.8 U	4.8 U
Phenanthrene	NC	50	ug/L	0.19 U	0.19 U	0.19 U
Phenol	1	NC	ug/L	0.95 U	0.95 U	0.95 U
Pyrene	NC	50	ug/L	0.19 U	0.19 U	0.19 U

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters	<i>New York State Water Quality Standards</i>			<i>Units</i>		
	a	b				
			Sample Name:	MW-101 WG-631028-080813-001	MW-102 WG-631028-080813-002	MW-102 WG-631028-080813-003
			Sample Date:	8/8/2013	8/8/2013	8/8/2013
						(Duplicate)
<b>Metals</b>						
Aluminum	NC	NC	ug/L	98	260	330
Antimony	3	NC	ug/L	9.9	0.72 J	0.70 J
Arsenic	25	NC	ug/L	1.5 J	2.2 J	2.3 J
Barium	1000	NC	ug/L	78	83	82
Beryllium	NC	3	ug/L	0.20 J	0.082 J	0.068 J
Cadmium	5	NC	ug/L	0.22 J	0.029 J	0.030 J
Calcium	NC	NC	ug/L	40000	92000	90000
Chromium	50	NC	ug/L	2.0 U	2.0 U	2.0 U
Cobalt	NC	NC	ug/L	1.0 U	1.0 U	1.0 U
Copper	200	NC	ug/L	42	7.6 U	8.0
Iron	300	NC	ug/L	170 U	1200	1300
Lead	25	NC	ug/L	26	3.3	3.5
Magnesium	NC	35000	ug/L	17000	61000	58000
Manganese	300	NC	ug/L	46	81	78
Mercury	0.7	NC	ug/L	0.20 U	0.20 U	0.20 U
Nickel	100	NC	ug/L	2.0 U	2.0 U	2.0 U
Potassium	NC	NC	ug/L	1600	2600	2700
Selenium	10	NC	ug/L	0.71 J	0.45 J	0.56 J
Silver	50	NC	ug/L	0.070 J	0.020 J	1.0 U
Sodium	20000	NC	ug/L	20000	55000	54000
Thallium	NC	0.5	ug/L	2.0 U	2.0 U	2.0 U
Vanadium	NC	NC	ug/L	5.0 U	5.0 U	5.0 U
Zinc	NC	2000	ug/L	24 U	20 U	23 U

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i> WG-631028-080813-007 <i>Sample Date:</i> 8/8/2013		MW-103	MW-104	MW-105	MW-106F		
	<i>New York State Water Quality Units</i>									
	Standards	Guidance Values			a	b				
<b>Volatile Organic Compounds</b>										
1,1,1-Trichloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,1,2,2-Tetrachloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,1,2-Trichloroethane	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,1-Dichloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,1-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,2,4-Trichlorobenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,2-Dibromo-3-chloropropane (DBCP)	0.04	NC	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		
1,2-Dibromoethane (Ethylene dibromide)	0.0006	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,2-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,2-Dichloroethane	0.6	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,2-Dichloropropane	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,3-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
1,4-Dichlorobenzene	3	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
2-Butanone (Methyl ethyl ketone) (MEK)	NC	50	ug/L	10 U	10 U	10 U	10 U	10 U		
2-Hexanone	NC	50	ug/L	10 U	10 U	10 U	10 U	10 U		
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NC	NC	ug/L	10 U	10 U	10 U	10 U	10 U		
Acetone	NC	50	ug/L	10 U	10 U	10 U	10 U	10 U		
Benzene	1	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Bromodichloromethane	NC	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Bromoform	NC	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Bromomethane (Methyl bromide)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Carbon disulfide	60	60	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Carbon tetrachloride	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Chlorobenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Chloroethane	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Chloroform (Trichloromethane)	7	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Chloromethane (Methyl chloride)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
cis-1,2-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
cis-1,3-Dichloropropene	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Cyclohexane	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		

TABLE 4.4

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**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i> WG-631028-080813-007 <i>Sample Date:</i> 8/8/2013		MW-103	MW-104	MW-105	MW-106F		
	<i>New York State Water Quality Units</i>									
	Standards	Guidance Values			a	b				
<b>Volatile Organic Compounds (Continued)</b>										
Dibromochloromethane	NC	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Dichlorodifluoromethane (CFC-12)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Ethylbenzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Isopropyl benzene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Methyl acetate	NC	NC	ug/L	10 U	10 U	10 U	10 U			
Methyl cyclohexane	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Methyl tert butyl ether (MTBE)	NC	10	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Methylene chloride	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Styrene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Tetrachloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Toluene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
trans-1,2-Dichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
trans-1,3-Dichloropropene	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Trichloroethene	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Trichlorofluoromethane (CFC-11)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Trifluorotrichloroethane (Freon 113)	5	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Vinyl chloride	2	NC	ug/L	1.0 U	1.0 U	1.0 U	1.0 U			
Xylenes (total)	NC	NC	ug/L	2.0 U	2.0 U	2.0 U	2.0 U			
<b>Semi-volatile Organic Compounds</b>										
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	5	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U			
2,4,5-Trichlorophenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U	4.8 U			
2,4,6-Trichlorophenol	NC	NC	ug/L	4.8 U	4.8 U	4.8 U	4.8 U			
2,4-Dichlorophenol	5	NC	ug/L	1.9 U	0.42 J	1.9 U	0.29 J			
2,4-Dimethylphenol	NC	50	ug/L	1.9 U	1.9 U	1.9 U	1.9 U			
2,4-Dinitrophenol	NC	10	ug/L	4.8 U	4.8 U	4.8 U	4.8 U			
2,4-Dinitrotoluene	5	NC	ug/L	4.8 U	4.8 U	4.8 U	4.8 U			
2,6-Dinitrotoluene	5	NC	ug/L	4.8 U	4.8 U	4.8 U	4.8 U			
2-Chloronaphthalene	NC	10	ug/L	0.95 U	0.95 U	0.95 U	0.95 U			
2-Chlorophenol	NC	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U			
2-Methylnaphthalene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U	0.19 U			

TABLE 4.4

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**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i> WG-631028-080813-007 <i>Sample Date:</i> 8/8/2013		MW-103	MW-104	MW-105	MW-106F
	<i>New York State Water Quality Units</i>							
	Standards	Guidance Values	a	b				
<b>Semi-volatile Organic Compounds (Continued)</b>								
2-Methylphenol	NC	NC	ug/L	0.95 U				
2-Nitroaniline	5	NC	ug/L	1.9 U				
2-Nitrophenol	NC	NC	ug/L	1.9 U				
3&4-Methylphenol	5	NC	ug/L	1.9 U				
3,3'-Dichlorobenzidine	5	NC	ug/L	4.8 U				
3-Nitroaniline	NC	NC	ug/L	1.9 U				
4,6-Dinitro-2-methylphenol	NC	NC	ug/L	4.8 U				
4-Bromophenyl phenyl ether	NC	NC	ug/L	1.9 U				
4-Chloro-3-methylphenol	5	NC	ug/L	1.9 U				
4-Chloroaniline	NC	NC	ug/L	1.9 U				
4-Chlorophenyl phenyl ether	NC	NC	ug/L	1.9 U				
4-Nitroaniline	5	NC	ug/L	1.9 U				
4-Nitrophenol	NC	NC	ug/L	4.8 U				
Acenaphthene	NC	20	ug/L	0.19 U				
Acenaphthylene	NC	NC	ug/L	0.19 U				
Acetophenone	NC	NC	ug/L	0.95 U				
Anthracene	NC	50	ug/L	0.19 U				
Atrazine	7.5	NC	ug/L	0.95 U				
Benzaldehyde	NC	NC	ug/L	0.95 U				
Benzo(a)anthracene	NC	0.002	ug/L	0.19 U				
Benzo(a)pyrene	NC	NC	ug/L	0.19 U				
Benzo(b)fluoranthene	NC	0.002	ug/L	0.19 U				
Benzo(g,h,i)perylene	NC	NC	ug/L	0.19 U				
Benzo(k)fluoranthene	NC	0.002	ug/L	0.19 U				
Biphenyl (1,1-Biphenyl)	5	NC	ug/L	0.95 U				
bis(2-Chloroethoxy)methane	5	NC	ug/L	0.95 U				
bis(2-Chloroethyl)ether	1	NC	ug/L	0.95 U				
bis(2-Ethylhexyl)phthalate (DEHP)	5	NC	ug/L	1.9 U				
Butyl benzylphthalate (BBP)	NC	50	ug/L	1.9 U				
Caprolactam	NC	NC	ug/L	4.8 U				
Carbazole	NC	NC	ug/L	0.95 U				

TABLE 4.4

**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i> WG-631028-080813-007	MW-103	MW-104	MW-105	MW-106F	
				<i>Sample Date:</i> 8/8/2013	WG-631028-080813-005	WG-631028-080813-004	WG-631028-080813-008	
	Standards	Guidance Values		<i>a</i>	<i>b</i>			
<b>Semi-volatile Organic Compounds (Continued)</b>								
Chrysene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Dibenz(a,h)anthracene	NC	NC	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Dibenzofuran	NC	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Diethyl phthalate	NC	50	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	
Dimethyl phthalate	NC	50	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	
Di-n-butylphthalate (DBP)	50	NC	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	
Di-n-octyl phthalate (DnOP)	NC	50	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	
Fluoranthene	NC	50	ug/L	0.19 U	0.19 U	0.19 U	0.16 J	
Fluorene	NC	50	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Hexachlorobenzene	0.04	NC	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Hexachlorobutadiene	0.5	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Hexachlorocyclopentadiene	5	NC	ug/L	9.5 U	9.5 U	9.5 U	9.5 U	
Hexachloroethane	5	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Indeno(1,2,3-cd)pyrene	NC	0.002	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Isophorone	NC	50	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Naphthalene	NC	10	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Nitrobenzene	0.4	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
N-Nitrosodi-n-propylamine	NC	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
N-Nitrosodiphenylamine	NC	50	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Pentachlorophenol	1	NC	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	
Phenanthrene	NC	50	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	
Phenol	1	NC	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	
Pyrene	NC	50	ug/L	0.19 U	0.19 U	0.19 U	0.14 J	

TABLE 4.4

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**ANALYTICAL RESULTS SUMMARY  
2013 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Parameters			<i>Location:</i> <i>Sample Name:</i>	MW-103	MW-104	MW-105	MW-106F
	<i>Sample Date:</i>	<i>Units</i>		WG-631028-080813-007	WG-631028-080813-005	WG-631028-080813-004	WG-631028-080813-008
	<i>Standards</i>	<i>Guidance Values</i>	<i>a</i>	<i>b</i>			
<b>Metals</b>							
Aluminum	NC	NC	ug/L	50 U	50 U	50 U	2000
Antimony	3	NC	ug/L	2.0 U	2.0 U	2.0 U	4.3
Arsenic	25	NC	ug/L	1.6 J	10	0.81 J	1.3 J
Barium	1000	NC	ug/L	130	40	190	180
Beryllium	NC	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	5	NC	ug/L	0.026 J	1.0 U	1.0 U	0.22 J
Calcium	NC	NC	ug/L	150000	150000	77000	75000
Chromium	50	NC	ug/L	2.0 U	2.0 U	2.0 U	3.2 U
Cobalt	NC	NC	ug/L	1.0 U	1.0 U	1.0 U	1.5
Copper	200	NC	ug/L	6.3 U	2.0 U	2.0 U	83
Iron	300	NC	ug/L	390	320	900	3100
Lead	25	NC	ug/L	2.3	1.0 U	1.0 U	89
Magnesium	NC	35000	ug/L	97000	100000	74000	60000
Manganese	300	NC	ug/L	55	15	21	140
Mercury	0.7	NC	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	100	NC	ug/L	2.0 U	2.0 U	2.0 U	4.4 U
Potassium	NC	NC	ug/L	3400	1900	4000	1800
Selenium	10	NC	ug/L	5.0 U	5.0 U	0.35 J	0.47 J
Silver	50	NC	ug/L	1.0 U	0.012 J	1.0 U	0.078 J
Sodium	20000	NC	ug/L	140000	65000	59000	93000
Thallium	NC	0.5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Vanadium	NC	NC	ug/L	5.0 U	5.0 U	5.0 U	5.1
Zinc	NC	2000	ug/L	20 U	20 U	20 U	150 U

**TABLE 4.4**

**ANALYTICAL RESULTS SUMMARY  
2012 ANNUAL PERIODIC REVIEW REPORT  
FORMER NL INDUSTRIES SITE  
NYSDEC SITE NO. C-915200  
DEPEW, NEW YORK**

Notes:

All concentrations are expressed in units of micrograms per litre ( $\mu\text{g}/\text{L}$ ), unless otherwise noted.

**51** - Concentration was greater than applicable criteria.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of  
--- Not available.

NC - No criteria.

a - New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 703.5 New York

b - NYSDEC Division of Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality

**APPENDIX A**

**SITE INSPECTION FORM**

# Site Inspection Form

Former N.L. Industries  
3241 Walden Avenue  
Depew, NY

Page 1 of 5

Name of Inspector: KATHERINE GALANTI  
Date of Inspection: 9/17/13

The purpose of this inspection is to monitor the overall integrity of the containment cell, the site wide paving and the building foundation. Please take photographs from all four sides of the containment cell cap, as well as the asphalt pavement and building foundation to document the existing conditions of the consolidated soil area, erosion control technologies in place, and the immediate surrounding area each week. Please fill out the following inspection items. If at any time impacted fill material has been exposed, please notify the Project Manager listed in the SMP immediately.

## Monitoring Well Network

### Condition of Monitoring Wells

	Good	Fair	Needs Repair	Details
MW-101	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-102	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-103	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-104	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-105	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-106	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MW-99-01	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

## Asphalt Only Cover System

Are there any obvious areas of damage to the asphalt in the trucking yard?

YES  NO  If yes, please describe \_\_\_\_\_

---



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# Site Inspection Form

Former N.L. Industries  
3241 Walden Avenue  
Depew, NY

Page 2 of 5

## **Asphalt Only Cover System**

Are there any obvious areas of damage to the asphalt in the parking lot?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there any obvious areas of damage to the asphalt in the former rail siding area?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Building and Apron Concrete Cover System**

Are there any obvious areas of damage to the building's foundations?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there any obvious areas of damage to any concrete pads?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **GCL and Soil Cover System**

Are there any signs of soil run-off or erosion on the sides of the containment cell?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Site Inspection Form

Former N.L. Industries  
3241 Walden Avenue  
Depew, NY

Page 3 of 5

## **GCL and Soil Cover System**

Are there any areas of exposed GCL?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Has the grass appeared to have been mowed at a regular basis during the previous growing season?

YES  NO  If yes, please describe ADVISED THAT GRASS SHOULD BE MOWED BEFORE END OF SEASON.  
\_\_\_\_\_  
\_\_\_\_\_

Are there any woody types plants growing within the this Cover System?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **GCL and Asphalt Cover System**

Are there any obvious areas of damage to the asphalt within this cover system?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there any obvious signs of cracking within this cover system?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Site Inspection Form

Former N.L. Industries  
3241 Walden Avenue  
Depew, NY

Page 4 of 5

## **Pond**

Is there standing water in the retention pond?

YES  NO  If yes, approximately how much? ~ 9-12 INCHES IN DEPTH  
AT CENTER OF POND.

Is there any debris within the retention pond?

YES  NO  If yes, please describe No debris, however, significant  
plant growth (grasses, phragmites) in pond

Is the inlet and outlet of the retention pond free of debris?

YES  NO  If no, please describe \_\_\_\_\_  
\_\_\_\_\_

Is there any sign of erosion along the banks of the retention pond?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_

## **Vegetatives**

Is there any sign of distress, disease or die off of the vegetatives associated with the cover systems?

YES  NO  If yes, please describe \_\_\_\_\_  
\_\_\_\_\_

# Site Inspection Form

Former N.L. Industries  
3241 Walden Avenue  
Depew, NY

Page 5 of 5

## **Fencing**

Is there signs of damage to the fencing around the retention pond or within the area of the environmental easement?

YES  NO  If yes, describe location and extent of damage

---

---

Is there signs of frost heaving within the supports of the fencing?

YES  NO  If yes, please describe

---

---

Is the chain link still attached to support poles at all locations around the retention pond or within the area of the environmental easement?

YES  NO  If no, please describe

---

---

Is there any sign of erosion along the banks of the retention pond?

YES  NO  If yes, please describe

---

---

Please describe any changes to the overall area since the last inspection

SOIL COVER WORK OBSERVED DURING 2012 INSPECTION ALONG  
WALDEN AVE. NOW COMPLETE.

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**APPENDIX B**  
**PHOTOGRAPHS**



**CONESTOGA-ROVERS**  
& ASSOCIATES

2055 Niagara Falls Blvd., Suite #3  
Niagara Falls, New York 14304  
Telephone: (716) 297-6150 Fax: (716) 297-2265  
[www.CRAworld.com](http://www.CRAworld.com)



Photo 1 – Parking lot looking west along north side of office.



Photo 2 – Parking lot looking south.



Photo 3 – Building Apron Concrete System looking west across MW-103.



Photo 4 – Building Apron Concrete System looking southeast.

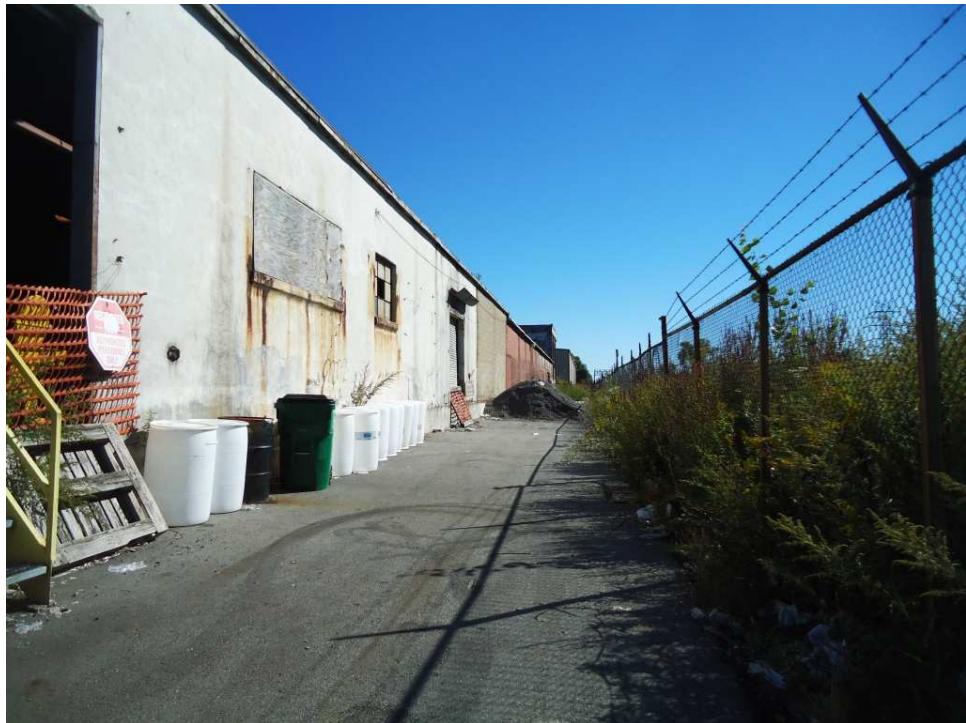


Photo 5 – Former Rail Siding looking east.



Photo 6 – Trucking Yard looking northeast.



Photo 7 – Trucking Yard looking north.

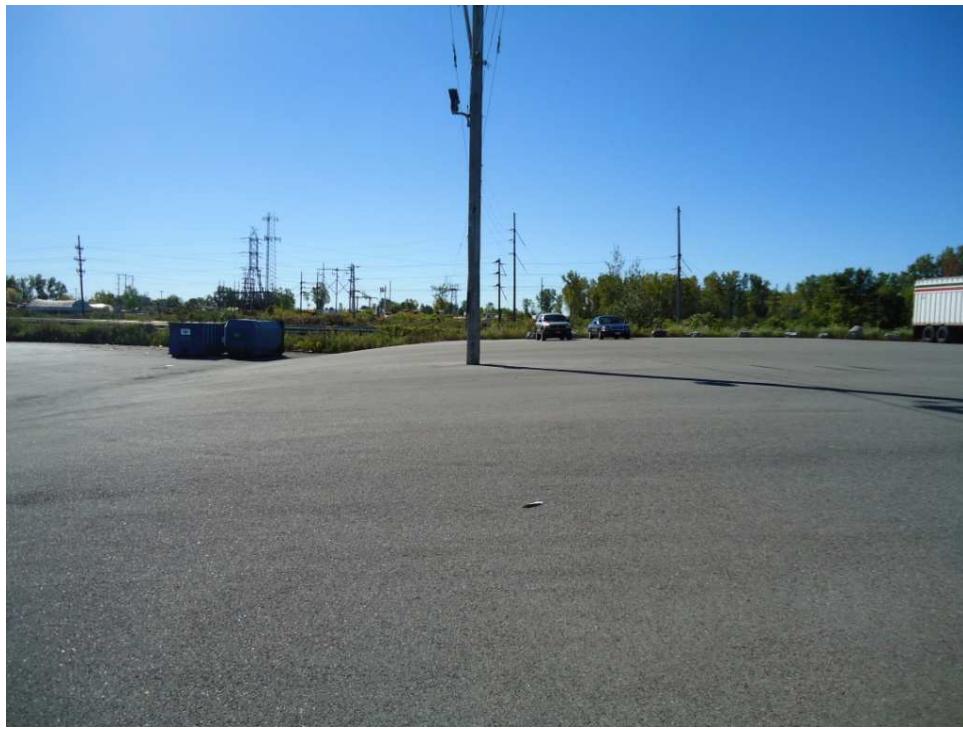


Photo 8 – GCL and Asphalt Cover System looking south across east slope.



Photo 9 – GCL and Soil Cover System looking east along north slope.



Photo 10 – GCL and Soil Cover System looking south along west slope.



Photo 11 – GCL and Soil Cover System looking east along south slope.



Photo 12 – Access gate at southeast corner of retention pond enclosure.



Photo 13 – Retention pond looking northwest.

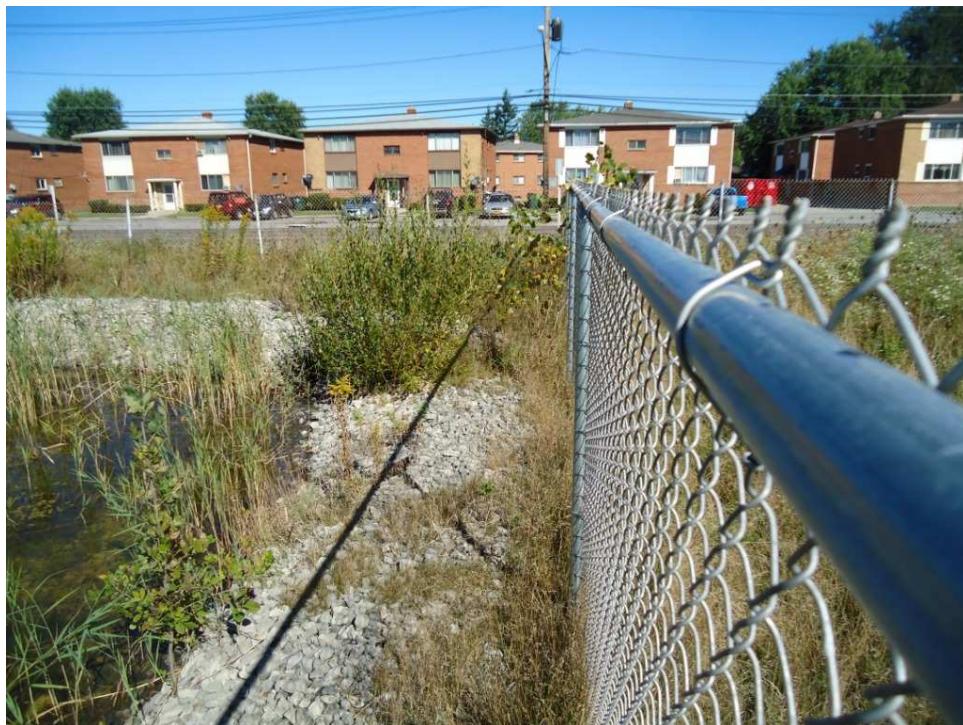


Photo 14 – Retention pond looking north. Outlet pipes in northeast corner of pond.



Photo 15 – GCL and Asphalt Cover System looking southeast across cap.



Photo 16 – GCL and Asphalt Cover System looking northeast across cap.



Photo 17 – Looking west from top of cap across retention pond and vegetative cover.

**APPENDIX C**  
**GROUNDWATER MONITORING FIELD FORMS**

SAMPLE ID: WG-631028-080813-001

SAMPLE TIME 0930

MONITORING WELL RECORD FOR LOW-FLOW PURGING

### *Project Data:*

Project Name: CASCADES ANNUAL  
Ref. No.: 631028

Date: 8/8/13  
Personnel: SG

### *Monitoring Well Data:*

Well No.: MW101  
Vapour PID (ppm):  
Measurement Point:  
Constructed Well Depth (m/ft):  
Measured Well Depth (m/ft): 26.89  
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): \_\_\_\_\_  
Depth to Pump Intake (m/ft)<sup>(1)</sup>: \_\_\_\_\_  
Well Diameter, D (cm/in): \_\_\_\_\_  
Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: \_\_\_\_\_  
Initial Depth to Water (m/ft): 7.10

### Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where  $r$  ( $r=D/2$ ) and  $L$  are in meters. For Imperial units,  $V_s = \pi r^2 L^* (2.54)^3$ , where  $r$  and  $L$  are in inches.
  - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
  - (5) For conductivity, the average value of three readings  $<1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}$  or where conductivity  $>1 \text{ mS/cm} \pm 0.01 \text{ mS/cm}$ .

INST CONTROL #S

HORIBA - NFO615L

W/L METER - ab203

TURBIOMETER - 06192

Frank Hartman

START PURGE @ 0851

SOUNDED DEPTH - 26.89

BLIND DUPLICATE - WG-031028 - 080813-003

SAMPLE TIME 1115

SAMPLE ID# WG-631028-080813-002

SAMPLE TIME 1115

## MONITORING WELL RECORD FOR LOW-FLOW PURGING

### *Project Data:*

Project Name: CASCADES ANNUAL  
Ref. No.: 631028

Date: 8/8/13  
Personnel: 16

### *Monitoring Well Data:*

Well No.: MW-102

Vapour PID (ppm): \_\_\_\_\_

Measurement Point: \_\_\_\_\_

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft): 24.50

Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): \_\_\_\_\_

Depth to Pump Intake (m/ft)<sup>(1)</sup>:

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume,  $V_s$  (L)<sup>(2)</sup>:

Initial Depth to Water (m/ft): 2.91

291

CofC # 40914

Notes

- Notes:

  - (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi^*(r^2)*L$  in mL, where  $r$  ( $r=D/2$ ) and  $L$  are in cm. For Imperial units,  $V_s = \pi^*(r^2)*L^*(2.54)^4$ , where  $r$  and  $L$  are in inches.
  - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
  - (5) For conductivity, the average value of three readings <1 mS/cm ± 0.005 mS/cm or where conductivity >1 mS/cm ± 0.01 mS/cm.

INST CONTROL #S

HORIBA-NFdisISe

w/l METER-06203

TURBIDIMETER - 06192

Frank P. Hartman

START PURGE @ 1037

SOUNDED DEPTH - 24.50

Sample ID W6-631028-080813-008 7

Time 1240

### MONITORING WELL RECORD FOR LOW-FLOW PURGING

### *Project Data:*

Project Name: Cascade Paper  
Ref. No.: 631028

Date: 8-8-13

CofC #  
40914

### *Monitoring Well Data:*

Well No.: MW-103

Vapour PID (ppm): \_\_\_\_\_

#### Measurement Point:

Constructed Well Depth (m/ft): \_\_\_\_\_

Measured Well Depth (m/ft): 26.66

Depth of Sediment (m/ft): \_\_\_\_\_

Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)<sup>(1)</sup>:

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume,  $V_s$  (L)<sup>(2)</sup>:

Initial Depth to Water (m/ft): 5.00

www.ijerph.org | [www.ijerph.org](http://www.ijerph.org) | <http://dx.doi.org/10.3390/ijerph12040895>

#### Notes:

- Notes:

  - (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi^*(r^2)*L$  in mL, where  $r$  ( $r=D/2$ ) and  $L$  are in cm. For Imperial units,  $V_s = \pi^*(r^2)*L^*(2.54)^4$ , where  $r$  and  $L$  are in inches.
  - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
  - (5) For conductivity, the average value of three readings  $<1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}$  or where conductivity  $>1 \text{ mS/cm} \pm 0.01 \text{ mS/cm}$ .

Inst. Control #'s  
Turb NFO5040  
W/L Meter NFO6117  
Horiba NFO6156

Start Purge @ 1154

Dave J. Tye

Sample ID WG-631028-080813-005  
Time 1050

CofC 40914

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Cascade Paper  
Ref. No.: 631028

Date: 8-8-13  
Personnel: DJT

Monitoring Well Data:

Well No.: MW-104

Vapour PID (ppm): \_\_\_\_\_

Measurement Point: \_\_\_\_\_

Constructed Well Depth (m/ft): \_\_\_\_\_

Measured Well Depth (m/ft): 26.41

Depth of Sediment (m/ft): \_\_\_\_\_

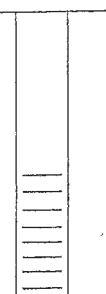
Saturated Screen Length (m/ft): \_\_\_\_\_

Depth to Pump Intake (m/ft)<sup>(1)</sup>: \_\_\_\_\_

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: \_\_\_\_\_

Initial Depth to Water (m/ft): 5.82



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0950	100	7.48	1.66	21.58	>100	0.0	0.36	6.81	176		
0955				21.87	>100	0.0	0.39	7.01	147		
1000				21.50	>100	5.85	0.38	7.19	114		
1005		8.49	2.67	22.09	>100	1.62	0.33	7.27	94		
1010		8.68		21.88	>100	3.43	0.29	7.32	79		
1015				22.31	>100	6.87	0.32	7.35	62		
1020		9.65	3.43	21.53	>100	3.10	0.32	7.38	21		
1025				22.10	>100	3.00	0.28	7.38	-13		
1030				21.90	>100	1.44	0.26	7.42	-23		
1035	75	9.83	4.01	21.81	>100	1.76	0.24	7.40	-35		
1040				21.48	>100	2.66	0.25	7.40	-50		
1045				21.54	>100	4.30	NM	7.39	-51		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r ( $r=D/2$ ) and L are in cm.  
For Imperial units,  $V_s = \pi r^2 L$  (2.54)<sup>3</sup>, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- (5) For conductivity, the average value of three readings  $<1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}$  or where conductivity  $>1 \text{ mS/cm} \pm 0.01 \text{ mS/cm}$ .

Inst. Control #'s

HoriBa NFO3583  
W/L Meter NFO6117

Turb. NFO5040

Start Purge @ 0936

David J. Green

SAMPLE ID# WG-631028-080813-004

SAMPLE TIME 1320

CofC # 40914

## MONITORING WELL RECORD FOR LOW-FLOW PURGING

### *Project Data:*

Project Name: CASCADES ANNUAL  
Ref. No.: U31028

Date: 8/8/13  
Personnel: SG

### *Monitoring Well Data:*

Well No.: MW-105

Vapour PID (ppm): \_\_\_\_\_

Measurement Point: \_\_\_\_\_

Constructed Well Depth (m/ft): \_\_\_\_\_

Measured Well Depth (m/ft): 24.50

Depth of Sediment (m/ft): \_\_\_\_\_

Saturated Screen Length (m/ft): \_\_\_\_\_

Depth to Pump Intake (m/ft)<sup>(1)</sup>:

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume,  $V_s$  (L)<sup>(2)</sup>:

Initial Depth to Water (m/ft): 8.10

#### Notes:

- Notes:**

  - (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where  $r$  ( $r=D/2$ ) and  $L$  are in meters. For Imperial units,  $V_s = \pi r^2 L^*$  (2.54)<sup>3</sup>, where  $r$  and  $L$  are in inches.
  - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
  - (4) Purgging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
  - (5) For conductivity, the average value of three readings <1 mS/cm ± 0.005 mS/cm or where conductivity >1 mS/cm ± 0.01 mS/cm.

INST CONTROL #S  
in cm<sup>3</sup>  
HORIBA-NF6015L6  
W/L METER-06203  
id TURBIDIMETER-06192

START PURGE @ 1249

SOUNDED DEPTH - 24.50

Sample ID WG-631028-080813-008

Pg 1 of 2

Time 13/5

MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Cascade Paper  
Ref. No.: 631028Date: 8-8-13  
Personnel: DITCoC #  
40914

## Monitoring Well Data:

Well No.: MW-106 F

Vapour PID (ppm): \_\_\_\_\_

Measurement Point: \_\_\_\_\_

Constructed Well Depth (m/ft): \_\_\_\_\_

Measured Well Depth (m/ft): 10.28

Depth of Sediment (m/ft): \_\_\_\_\_

Saturated Screen Length (m/ft): \_\_\_\_\_

Depth to Pump Intake (m/ft)<sup>(1)</sup>: \_\_\_\_\_

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: \_\_\_\_\_Initial Depth to Water (m/ft): 1.50

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>	
1058	100	3.80	1.30	23.39	>100	13.2	0.55	9.55	-7			
1103				23.56	>100	13.6	0.38	9.85	-22			
1112												
				Readings for Cond & DO No Good - Change								
				Meters								
1124	5.84	3.34	24.46	0.558	36.4	5.37	9.13	-82				
1129	5.98	3.48	25.15	0.615	26.2	4.55	8.80	-67				
1134	6.11	3.61	25.62	0.658	19.9	3.26	8.55	-52				
1139	95	6.38	25.89	0.685	16.1	2.53	8.44	-47				
1144	6.54	4.04	26.05	0.688	10.9	1.92	8.28	-44				
1149	6.72	4.22	26.30	0.713	7.28	1.79	8.07	-38				
1154			26.70	0.735	4.98	1.68	7.80	-32				
1159			27.20	0.807	3.85	0.90	7.55	-29				

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r ( $r=D/2$ ) and L are in cm. For Imperial units,  $V_s = \pi r^2 L$  (2.54)<sup>3</sup>, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Inst. Control #'  
W/C Meter NF07182  
Turb NF05040  
Horiba NF03583  
NFC06156

Start Purge @ 1049  
Install New 2"φ J-Plug

David J. Tyner

Pg Z of Z

MONITORING WELL RECORD FOR LOW-FLOW PURGING

### *Project Data:*

Project Name: Cascade Paper  
Ref. No.: 631028

Date: 8-8-13  
Personnel: DJT

### *Monitoring Well Data:*

Well No.: MW-106 F'

Vapour PID (ppm): \_\_\_\_\_

Measurement Point:

Constructed Well Depth (m/ft): \_\_\_\_\_

Measured Well Depth (m/ft):

Depth of Sediment (m/ft):

Saturated Screen Length (m/ft): \_\_\_\_\_

Depth to Pump Intake (m/ft)<sup>(1)</sup>:

Well Diameter, D (cm/in): \_\_\_\_\_

Well Screen Volume,  $V_s$  (L)<sup>(2)</sup>:

Initial Depth to Water (m/ft): 2.50

Time	Pumping Rate (mL/min)	Depth to Water (in/ft)	Drawdown from Initial Water Level <sup>(a)</sup> (in/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(c)</sup>
	Precision Required <sup>(b)</sup> :		±3 %		±0.005 or 0.01 <sup>(d)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
1204		7.26	4.76	27.77	0.849	3.93	0.77	7.41	-25		
1208			Well Dry								

Let well sit & fill 1330, sample 3x40ml VOCs 8/8/13  
 Return 8/9/13 and fill the metabottle 1 VOC Bottles

Notes.

- Notes:

  - (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 * L$  in mL, where  $r$  ( $r=D/2$ ) and  $L$  are in cm.  
For Imperial units,  $V_s = \pi r^2 * L^* (2.54)^3$ , where  $r$  and  $L$  are in inches
  - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged=  $V_p/V_s$ .
  - (5) For conductivity, the average value of three readings  $<1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}$  or where conductivity  $>1 \text{ mS/cm} \pm 0.01 \text{ mS/cm}$ .

Inst. Control #s

Hribek NFO  
W/L Meter NF07182  
Turb NF05040

APPENDIX D  
ANALYTICAL DATA REPORT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-27824-1

Client Project/Site: 631028, NL Industries

For:

Conestoga-Rovers & Associates, Inc.

2055 Niagara Falls Blvd., Suite 3

Niagara Falls, New York 14304

Attn: Mr. Paul McMahon

Denise Heckler

Authorized for release by:

8/26/2013 10:00:47 AM

Denise Heckler, Project Manager II

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)

### LINKS

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

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

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## Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### 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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Job ID: 240-27824-1**

**Laboratory: TestAmerica Canton**

Narrative

### CASE NARRATIVE

**Client: Conestoga-Rovers & Associates, Inc.**

**Project: 631028, NL Industries**

**Report Number: 240-27824-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

#### **RECEIPT**

The samples were received on 08/10/2013; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7° C and 1.2° C.

#### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples WG-631028-080813-001 (240-27824-1), WG-631028-080813-002 (240-27824-2), WG-631028-080813-003 (240-27824-3), WG-631028-080813-004 (240-27824-4), WG-631028-080813-005 (240-27824-5), EB-631028-080813-006 (240-27824-6), WG-631028-080813-007 (240-27824-7), WG-631028-080813-008 (240-27824-8) and TB-631028-080813 (240-27824-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/20/2013.

Toluene failed the recovery criteria high for LCS 240-98068/4. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

#### **SEMICVOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples WG-631028-080813-001 (240-27824-1), WG-631028-080813-002 (240-27824-2), WG-631028-080813-003 (240-27824-3), WG-631028-080813-004 (240-27824-4), WG-631028-080813-005 (240-27824-5), EB-631028-080813-006 (240-27824-6),

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

### Job ID: 240-27824-1 (Continued)

#### Laboratory: TestAmerica Canton (Continued)

WG-631028-080813-007 (240-27824-7) and WG-631028-080813-008 (240-27824-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 08/13/2013 and analyzed on 08/15/2013.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-97238/16-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the SVOCs analysis.

All other quality control parameters were within the acceptance limits.

#### TOTAL RECOVERABLE METALS (ICPMS)

Samples WG-631028-080813-001 (240-27824-1), WG-631028-080813-002 (240-27824-2), WG-631028-080813-003 (240-27824-3), WG-631028-080813-004 (240-27824-4), WG-631028-080813-005 (240-27824-5), EB-631028-080813-006 (240-27824-6), WG-631028-080813-007 (240-27824-7) and WG-631028-080813-008 (240-27824-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 08/14/2013 and analyzed on 08/15/2013.

Zinc was detected in method blank MB 240-97354/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-97354/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### TOTAL MERCURY

Samples WG-631028-080813-001 (240-27824-1), WG-631028-080813-002 (240-27824-2), WG-631028-080813-003 (240-27824-3), WG-631028-080813-004 (240-27824-4), WG-631028-080813-005 (240-27824-5), EB-631028-080813-006 (240-27824-6), WG-631028-080813-007 (240-27824-7) and WG-631028-080813-008 (240-27824-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 08/13/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

## Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN

### Protocol References:

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

### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## Sample Summary

Client: Conestoga-Rovers & Associates, Inc.

Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-27824-1	WG-631028-080813-001	Water	08/08/13 09:30	08/10/13 09:30
240-27824-2	WG-631028-080813-002	Water	08/08/13 11:15	08/10/13 09:30
240-27824-3	WG-631028-080813-003	Water	08/08/13 11:15	08/10/13 09:30
240-27824-4	WG-631028-080813-004	Water	08/08/13 13:20	08/10/13 09:30
240-27824-5	WG-631028-080813-005	Water	08/08/13 10:50	08/10/13 09:30
240-27824-6	EB-631028-080813-006	Water	08/08/13 10:00	08/10/13 09:30
240-27824-7	WG-631028-080813-007	Water	08/08/13 12:40	08/10/13 09:30
240-27824-8	WG-631028-080813-008	Water	08/08/13 13:15	08/10/13 09:30
240-27824-9	TB-631028-080813	Water	08/08/13 00:00	08/10/13 09:30

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# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-001**

**Lab Sample ID: 240-27824-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.25	J B	1.9	0.21	ug/L	1		8270C	Total/NA
Silver	0.070	J	1.0	0.0083	ug/L	1		6020	Total Recoverable
Aluminum	98	B	50	7.5	ug/L	1		6020	Total Recoverable
Arsenic	1.5	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Beryllium	0.20	J	1.0	0.031	ug/L	1		6020	Total Recoverable
Cadmium	0.22	J	1.0	0.026	ug/L	1		6020	Total Recoverable
Cobalt	0.38	J	1.0	0.020	ug/L	1		6020	Total Recoverable
Chromium	0.92	J	2.0	0.13	ug/L	1		6020	Total Recoverable
Copper	42	B	2.0	0.24	ug/L	1		6020	Total Recoverable
Iron	170	B	100	12	ug/L	1		6020	Total Recoverable
Manganese	46	B	5.0	0.41	ug/L	1		6020	Total Recoverable
Nickel	0.78	J B	2.0	0.088	ug/L	1		6020	Total Recoverable
Lead	26	B	1.0	0.14	ug/L	1		6020	Total Recoverable
Antimony	9.9		2.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.71	J	5.0	0.34	ug/L	1		6020	Total Recoverable
Vanadium	1.4	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Zinc	24	B	20	2.1	ug/L	1		6020	Total Recoverable
Barium	78	B	5.0	0.32	ug/L	1		6020	Total Recoverable
Calcium	40000	B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	1600	B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	17000	B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	20000	B	1000	4.2	ug/L	1		6020	Total Recoverable

**Client Sample ID: WG-631028-080813-002**

**Lab Sample ID: 240-27824-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.020	J	1.0	0.0083	ug/L	1		6020	Total Recoverable
Aluminum	260	B	50	7.5	ug/L	1		6020	Total Recoverable
Arsenic	2.2	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Beryllium	0.082	J	1.0	0.031	ug/L	1		6020	Total Recoverable
Cadmium	0.029	J	1.0	0.026	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-002 (Continued)**

**Lab Sample ID: 240-27824-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.79	J	1.0	0.020	ug/L	1	6020		Total Recoverable
Chromium	0.59	J	2.0	0.13	ug/L	1	6020		Total Recoverable
Copper	7.6	B	2.0	0.24	ug/L	1	6020		Total Recoverable
Iron	1200	B	100	12	ug/L	1	6020		Total Recoverable
Manganese	81	B	5.0	0.41	ug/L	1	6020		Total Recoverable
Nickel	1.3	J B	2.0	0.088	ug/L	1	6020		Total Recoverable
Lead	3.3	B	1.0	0.14	ug/L	1	6020		Total Recoverable
Antimony	0.72	J	2.0	0.11	ug/L	1	6020		Total Recoverable
Selenium	0.45	J	5.0	0.34	ug/L	1	6020		Total Recoverable
Vanadium	1.3	J B	5.0	0.15	ug/L	1	6020		Total Recoverable
Zinc	20	B	20	2.1	ug/L	1	6020		Total Recoverable
Barium	83	B	5.0	0.32	ug/L	1	6020		Total Recoverable
Calcium	92000	B	1000	27	ug/L	1	6020		Total Recoverable
Potassium	2600	B	1000	5.1	ug/L	1	6020		Total Recoverable
Magnesium	61000	B	1000	15	ug/L	1	6020		Total Recoverable
Sodium	55000	B	1000	4.2	ug/L	1	6020		Total Recoverable

**Client Sample ID: WG-631028-080813-003**

**Lab Sample ID: 240-27824-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	330	B	50	7.5	ug/L	1	6020		Total Recoverable
Arsenic	2.3	J	5.0	0.063	ug/L	1	6020		Total Recoverable
Beryllium	0.068	J	1.0	0.031	ug/L	1	6020		Total Recoverable
Cadmium	0.030	J	1.0	0.026	ug/L	1	6020		Total Recoverable
Cobalt	0.78	J	1.0	0.020	ug/L	1	6020		Total Recoverable
Chromium	0.65	J	2.0	0.13	ug/L	1	6020		Total Recoverable
Copper	8.0	B	2.0	0.24	ug/L	1	6020		Total Recoverable
Iron	1300	B	100	12	ug/L	1	6020		Total Recoverable
Manganese	78	B	5.0	0.41	ug/L	1	6020		Total Recoverable
Nickel	1.4	J B	2.0	0.088	ug/L	1	6020		Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-003 (Continued)**

**Lab Sample ID: 240-27824-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.5	B	1.0	0.14	ug/L	1		6020	Total Recoverable
Antimony	0.70	J	2.0	0.11	ug/L	1		6020	Total Recoverable
Selenium	0.56	J	5.0	0.34	ug/L	1		6020	Total Recoverable
Vanadium	1.6	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Zinc	23	B	20	2.1	ug/L	1		6020	Total Recoverable
Barium	82	B	5.0	0.32	ug/L	1		6020	Total Recoverable
Calcium	90000	B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	2700	B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	58000	B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	54000	B	1000	4.2	ug/L	1		6020	Total Recoverable

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.76	J B	1.9	0.21	ug/L	1		8270C	Total/NA
Arsenic	0.81	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Cobalt	0.20	J	1.0	0.020	ug/L	1		6020	Total Recoverable
Copper	0.70	J B	2.0	0.24	ug/L	1		6020	Total Recoverable
Iron	900	B	100	12	ug/L	1		6020	Total Recoverable
Manganese	21	B	5.0	0.41	ug/L	1		6020	Total Recoverable
Nickel	0.48	J B	2.0	0.088	ug/L	1		6020	Total Recoverable
Lead	0.26	J B	1.0	0.14	ug/L	1		6020	Total Recoverable
Selenium	0.35	J	5.0	0.34	ug/L	1		6020	Total Recoverable
Vanadium	0.77	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Zinc	3.9	J B	20	2.1	ug/L	1		6020	Total Recoverable
Barium	190	B	5.0	0.32	ug/L	1		6020	Total Recoverable
Calcium	77000	B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	4000	B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	74000	B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	59000	B	1000	4.2	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-005**

**Lab Sample ID: 240-27824-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.42	J	1.9	0.18	ug/L	1		8270C	Total/NA
Silver	0.012	J	1.0	0.0083	ug/L	1		6020	Total Recoverable
Arsenic	10		5.0	0.063	ug/L	1		6020	Total Recoverable
Cobalt	0.10	J	1.0	0.020	ug/L	1		6020	Total Recoverable
Chromium	0.30	J	2.0	0.13	ug/L	1		6020	Total Recoverable
Copper	0.89	J B	2.0	0.24	ug/L	1		6020	Total Recoverable
Iron	320	B	100	12	ug/L	1		6020	Total Recoverable
Manganese	15	B	5.0	0.41	ug/L	1		6020	Total Recoverable
Nickel	0.34	J B	2.0	0.088	ug/L	1		6020	Total Recoverable
Lead	0.26	J B	1.0	0.14	ug/L	1		6020	Total Recoverable
Vanadium	0.89	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Barium	40	B	5.0	0.32	ug/L	1		6020	Total Recoverable
Calcium	150000	B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	1900	B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	100000	B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	65000	B	1000	4.2	ug/L	1		6020	Total Recoverable

**Client Sample ID: EB-631028-080813-006**

**Lab Sample ID: 240-27824-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.19	J	1.0	0.16	ug/L	1		8260B	Total/NA
Bis(2-ethylhexyl) phthalate	0.22	J B	1.9	0.21	ug/L	1		8270C	Total/NA
Arsenic	0.14	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Cobalt	0.19	J	1.0	0.020	ug/L	1		6020	Total Recoverable
Chromium	4.9		2.0	0.13	ug/L	1		6020	Total Recoverable
Copper	0.90	J B	2.0	0.24	ug/L	1		6020	Total Recoverable
Nickel	13	B	2.0	0.088	ug/L	1		6020	Total Recoverable
Vanadium	1.0	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Calcium	44	J B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	7.2	J B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	47	J B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	130	J B	1000	4.2	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-007**

**Lab Sample ID: 240-27824-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.28	J B	1.9	0.21	ug/L	1		8270C	Total/NA
Arsenic	1.6	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Cadmium	0.026	J	1.0	0.026	ug/L	1		6020	Total Recoverable
Cobalt	0.64	J	1.0	0.020	ug/L	1		6020	Total Recoverable
Copper	6.3	B	2.0	0.24	ug/L	1		6020	Total Recoverable
Iron	390	B	100	12	ug/L	1		6020	Total Recoverable
Manganese	55	B	5.0	0.41	ug/L	1		6020	Total Recoverable
Nickel	1.2	J B	2.0	0.088	ug/L	1		6020	Total Recoverable
Lead	2.3	B	1.0	0.14	ug/L	1		6020	Total Recoverable
Vanadium	0.72	J B	5.0	0.15	ug/L	1		6020	Total Recoverable
Zinc	12	J B	20	2.1	ug/L	1		6020	Total Recoverable
Barium	130	B	5.0	0.32	ug/L	1		6020	Total Recoverable
Calcium	150000	B	1000	27	ug/L	1		6020	Total Recoverable
Potassium	3400	B	1000	5.1	ug/L	1		6020	Total Recoverable
Magnesium	97000	B	1000	15	ug/L	1		6020	Total Recoverable
Sodium	140000	B	1000	4.2	ug/L	1		6020	Total Recoverable

**Client Sample ID: WG-631028-080813-008**

**Lab Sample ID: 240-27824-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.29	J	1.9	0.18	ug/L	1		8270C	Total/NA
Bis(2-ethylhexyl) phthalate	0.25	J B	1.9	0.21	ug/L	1		8270C	Total/NA
Fluoranthene	0.16	J	0.19	0.042	ug/L	1		8270C	Total/NA
Pyrene	0.14	J	0.19	0.040	ug/L	1		8270C	Total/NA
Silver	0.078	J	1.0	0.0083	ug/L	1		6020	Total Recoverable
Aluminum	2000	B	50	7.5	ug/L	1		6020	Total Recoverable
Arsenic	1.3	J	5.0	0.063	ug/L	1		6020	Total Recoverable
Cadmium	0.22	J	1.0	0.026	ug/L	1		6020	Total Recoverable
Cobalt	1.5		1.0	0.020	ug/L	1		6020	Total Recoverable
Chromium	3.2		2.0	0.13	ug/L	1		6020	Total Recoverable
Copper	83	B	2.0	0.24	ug/L	1		6020	Total Recoverable
Iron	3100	B	100	12	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-008 (Continued)**

**Lab Sample ID: 240-27824-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	140	B	5.0	0.41	ug/L	1	6020		Total Recoverable
Nickel	4.4	B	2.0	0.088	ug/L	1	6020		Total Recoverable
Lead	89	B	1.0	0.14	ug/L	1	6020		Total Recoverable
Antimony	4.3		2.0	0.11	ug/L	1	6020		Total Recoverable
Selenium	0.47	J	5.0	0.34	ug/L	1	6020		Total Recoverable
Vanadium	5.1	B	5.0	0.15	ug/L	1	6020		Total Recoverable
Zinc	150	B	20	2.1	ug/L	1	6020		Total Recoverable
Barium	180	B	5.0	0.32	ug/L	1	6020		Total Recoverable
Calcium	75000	B	1000	27	ug/L	1	6020		Total Recoverable
Potassium	1800	B	1000	5.1	ug/L	1	6020		Total Recoverable
Magnesium	60000	B	1000	15	ug/L	1	6020		Total Recoverable
Sodium	93000	B	1000	4.2	ug/L	1	6020		Total Recoverable

**Client Sample ID: TB-631028-080813**

**Lab Sample ID: 240-27824-9**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Client Sample ID: WG-631028-080813-001**

**Date Collected: 08/08/13 09:30**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 00:02	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:02	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 00:02	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 00:02	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 00:02	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:02	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 00:02	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 00:02	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 00:02	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:02	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:02	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:02	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 00:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 00:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 00:02	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 00:02	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 00:02	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 00:02	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 00:02	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 00:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:02	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 00:02	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 00:02	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:02	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 00:02	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 00:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 00:02	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 00:02	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 00:02	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 00:02	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 00:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:02	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 00:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 00:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 00:02	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:02	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 00:02	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 00:02	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:02	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 00:02	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		63 - 129		08/20/13 00:02	1
4-Bromofluorobenzene (Surr)	79		66 - 117		08/20/13 00:02	1
Toluene-d8 (Surr)	90		74 - 115		08/20/13 00:02	1
Dibromofluoromethane (Surr)	86		75 - 121		08/20/13 00:02	1

Client Sample ID: WG-631028-080813-002

Lab Sample ID: 240-27824-2

Date Collected: 08/08/13 11:15

Matrix: Water

Date Received: 08/10/13 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 00:24	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:24	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 00:24	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 00:24	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 00:24	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:24	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 00:24	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 00:24	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 00:24	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:24	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:24	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:24	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 00:24	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 00:24	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 00:24	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 00:24	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 00:24	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 00:24	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 00:24	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 00:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:24	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 00:24	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 00:24	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:24	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 00:24	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 00:24	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 00:24	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 00:24	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 00:24	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 00:24	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 00:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:24	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 00:24	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 00:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 00:24	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:24	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-002**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 00:24	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 00:24	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:24	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 00:24	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	98		63 - 129					08/20/13 00:24	1
4-Bromofluorobenzene (Surr)	82		66 - 117					08/20/13 00:24	1
Toluene-d8 (Surr)	97		74 - 115					08/20/13 00:24	1
Dibromofluoromethane (Surr)	84		75 - 121					08/20/13 00:24	1

**Client Sample ID: WG-631028-080813-003**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 00:46	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:46	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 00:46	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 00:46	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 00:46	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:46	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 00:46	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 00:46	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 00:46	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 00:46	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:46	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:46	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 00:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 00:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 00:46	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 00:46	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 00:46	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 00:46	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 00:46	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 00:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:46	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 00:46	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 00:46	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:46	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 00:46	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 00:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 00:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 00:46	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 00:46	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 00:46	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 00:46	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-003**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 00:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 00:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 00:46	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 00:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 00:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 00:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 00:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 00:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 00:46	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 00:46	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 00:46	1
<b>Surrogate</b>				<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	96			63 - 129				08/20/13 00:46	1
4-Bromofluorobenzene (Surr)	75			66 - 117				08/20/13 00:46	1
Toluene-d8 (Surr)	90			74 - 115				08/20/13 00:46	1
Dibromofluoromethane (Surr)	82			75 - 121				08/20/13 00:46	1

**Client Sample ID: WG-631028-080813-004**

**Date Collected: 08/08/13 13:20**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 01:08	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 01:08	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 01:08	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 01:08	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 01:08	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 01:08	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 01:08	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 01:08	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 01:08	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 01:08	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 01:08	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 01:08	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 01:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 01:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 01:08	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 01:08	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 01:08	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 01:08	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 01:08	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 01:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 01:08	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 01:08	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

**Date Collected: 08/08/13 13:20**

**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 01:08	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 01:08	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 01:08	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 01:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 01:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 01:08	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 01:08	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 01:08	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 01:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 01:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 01:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 01:08	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 01:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 01:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 01:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 01:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 01:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 01:08	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 01:08	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 01:08	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		63 - 129					08/20/13 01:08	1
4-Bromofluorobenzene (Surr)	78		66 - 117					08/20/13 01:08	1
Toluene-d8 (Surr)	93		74 - 115					08/20/13 01:08	1
Dibromofluoromethane (Surr)	87		75 - 121					08/20/13 01:08	1

**Client Sample ID: WG-631028-080813-005**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 01:30	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 01:30	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 01:30	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 01:30	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 01:30	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 01:30	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 01:30	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 01:30	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 01:30	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 01:30	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 01:30	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 01:30	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 01:30	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-005**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 01:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 01:30	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 01:30	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 01:30	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 01:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 01:30	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 01:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 01:30	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 01:30	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 01:30	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 01:30	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 01:30	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 01:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 01:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 01:30	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 01:30	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 01:30	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 01:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 01:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 01:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 01:30	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 01:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 01:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 01:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 01:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 01:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 01:30	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 01:30	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 01:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
1,2-Dichloroethane-d4 (Surr)	98		63 - 129				08/20/13 01:30	1	
4-Bromofluorobenzene (Surr)	79		66 - 117				08/20/13 01:30	1	
Toluene-d8 (Surr)	94		74 - 115				08/20/13 01:30	1	
Dibromofluoromethane (Surr)	89		75 - 121				08/20/13 01:30	1	

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 01:52	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 01:52	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 01:52	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 01:52	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 01:52	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 01:52	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 01:52	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L		08/20/13 01:52		1
Chlorobenzene	1.0	U	1.0	0.15	ug/L		08/20/13 01:52		1
Chloroethane	1.0	U	1.0	0.29	ug/L		08/20/13 01:52		1
<b>Chloroform</b>	<b>0.19</b>	<b>J</b>	1.0	0.16	ug/L		08/20/13 01:52		1
Chloromethane	1.0	U	1.0	0.30	ug/L		08/20/13 01:52		1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L		08/20/13 01:52		1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L		08/20/13 01:52		1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L		08/20/13 01:52		1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L		08/20/13 01:52		1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L		08/20/13 01:52		1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L		08/20/13 01:52		1
Ethylbenzene	1.0	U	1.0	0.17	ug/L		08/20/13 01:52		1
2-Hexanone	10	U	10	0.41	ug/L		08/20/13 01:52		1
Methylene Chloride	1.0	U	1.0	0.33	ug/L		08/20/13 01:52		1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L		08/20/13 01:52		1
Styrene	1.0	U	1.0	0.11	ug/L		08/20/13 01:52		1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L		08/20/13 01:52		1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L		08/20/13 01:52		1
Toluene	1.0	U*	1.0	0.13	ug/L		08/20/13 01:52		1
Trichloroethene	1.0	U	1.0	0.17	ug/L		08/20/13 01:52		1
Vinyl chloride	1.0	U	1.0	0.22	ug/L		08/20/13 01:52		1
Xylenes, Total	2.0	U	2.0	0.14	ug/L		08/20/13 01:52		1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L		08/20/13 01:52		1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L		08/20/13 01:52		1
Cyclohexane	1.0	U	1.0	0.12	ug/L		08/20/13 01:52		1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L		08/20/13 01:52		1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L		08/20/13 01:52		1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L		08/20/13 01:52		1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L		08/20/13 01:52		1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L		08/20/13 01:52		1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L		08/20/13 01:52		1
Methyl acetate	10	U	10	0.38	ug/L		08/20/13 01:52		1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L		08/20/13 01:52		1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L		08/20/13 01:52		1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L		08/20/13 01:52		1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L		08/20/13 01:52		1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L		08/20/13 01:52		1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L		08/20/13 01:52		1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L		08/20/13 01:52		1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L		08/20/13 01:52		1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L		08/20/13 01:52		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		63 - 129				08/20/13 01:52		1
4-Bromofluorobenzene (Surr)	84		66 - 117				08/20/13 01:52		1
Toluene-d8 (Surr)	94		74 - 115				08/20/13 01:52		1
Dibromofluoromethane (Surr)	86		75 - 121				08/20/13 01:52		1

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# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Client Sample ID: WG-631028-080813-007**

**Date Collected: 08/08/13 12:40**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 02:15	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 02:15	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 02:15	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 02:15	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 02:15	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 02:15	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 02:15	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 02:15	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 02:15	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 02:15	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 02:15	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 02:15	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 02:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 02:15	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 02:15	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 02:15	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 02:15	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 02:15	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 02:15	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 02:15	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 02:15	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 02:15	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 02:15	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 02:15	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 02:15	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 02:15	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 02:15	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 02:15	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 02:15	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 02:15	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 02:15	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 02:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 02:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 02:15	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 02:15	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 02:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 02:15	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 02:15	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 02:15	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 02:15	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 02:15	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 02:15	1

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# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		63 - 129		08/20/13 02:15	1
4-Bromofluorobenzene (Surr)	77		66 - 117		08/20/13 02:15	1
Toluene-d8 (Surr)	90		74 - 115		08/20/13 02:15	1
Dibromofluoromethane (Surr)	81		75 - 121		08/20/13 02:15	1

Client Sample ID: WG-631028-080813-008

Lab Sample ID: 240-27824-8

Date Collected: 08/08/13 13:15

Matrix: Water

Date Received: 08/10/13 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L		08/20/13 02:37		1
Benzene	1.0	U	1.0	0.13	ug/L		08/20/13 02:37		1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L		08/20/13 02:37		1
Bromoform	1.0	U	1.0	0.64	ug/L		08/20/13 02:37		1
Bromomethane	1.0	U	1.0	0.41	ug/L		08/20/13 02:37		1
2-Butanone (MEK)	10	U	10	0.57	ug/L		08/20/13 02:37		1
Carbon disulfide	1.0	U	1.0	0.13	ug/L		08/20/13 02:37		1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L		08/20/13 02:37		1
Chlorobenzene	1.0	U	1.0	0.15	ug/L		08/20/13 02:37		1
Chloroethane	1.0	U	1.0	0.29	ug/L		08/20/13 02:37		1
Chloroform	1.0	U	1.0	0.16	ug/L		08/20/13 02:37		1
Chloromethane	1.0	U	1.0	0.30	ug/L		08/20/13 02:37		1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L		08/20/13 02:37		1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L		08/20/13 02:37		1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L		08/20/13 02:37		1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L		08/20/13 02:37		1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L		08/20/13 02:37		1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L		08/20/13 02:37		1
Ethylbenzene	1.0	U	1.0	0.17	ug/L		08/20/13 02:37		1
2-Hexanone	10	U	10	0.41	ug/L		08/20/13 02:37		1
Methylene Chloride	1.0	U	1.0	0.33	ug/L		08/20/13 02:37		1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L		08/20/13 02:37		1
Styrene	1.0	U	1.0	0.11	ug/L		08/20/13 02:37		1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L		08/20/13 02:37		1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L		08/20/13 02:37		1
Toluene	1.0	U *	1.0	0.13	ug/L		08/20/13 02:37		1
Trichloroethene	1.0	U	1.0	0.17	ug/L		08/20/13 02:37		1
Vinyl chloride	1.0	U	1.0	0.22	ug/L		08/20/13 02:37		1
Xylenes, Total	2.0	U	2.0	0.14	ug/L		08/20/13 02:37		1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L		08/20/13 02:37		1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L		08/20/13 02:37		1
Cyclohexane	1.0	U	1.0	0.12	ug/L		08/20/13 02:37		1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L		08/20/13 02:37		1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L		08/20/13 02:37		1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L		08/20/13 02:37		1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L		08/20/13 02:37		1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L		08/20/13 02:37		1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L		08/20/13 02:37		1
Methyl acetate	10	U	10	0.38	ug/L		08/20/13 02:37		1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L		08/20/13 02:37		1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L		08/20/13 02:37		1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L		08/20/13 02:37		1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L		08/20/13 02:37		1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-008**

**Lab Sample ID: 240-27824-8**

**Matrix: Water**

**Date Collected: 08/08/13 13:15**

**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 02:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:37	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 02:37	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 02:37	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 02:37	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	97		63 - 129					08/20/13 02:37	1
4-Bromofluorobenzene (Surr)	76		66 - 117					08/20/13 02:37	1
Toluene-d8 (Surr)	93		74 - 115					08/20/13 02:37	1
Dibromofluoromethane (Surr)	82		75 - 121					08/20/13 02:37	1

**Client Sample ID: TB-631028-080813**

**Lab Sample ID: 240-27824-9**

**Matrix: Water**

**Date Collected: 08/08/13 00:00**

**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.1	ug/L			08/20/13 02:59	1
Benzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/20/13 02:59	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/20/13 02:59	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/20/13 02:59	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/20/13 02:59	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 02:59	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/20/13 02:59	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/20/13 02:59	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/20/13 02:59	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/20/13 02:59	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 02:59	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 02:59	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/20/13 02:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/20/13 02:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/20/13 02:59	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/20/13 02:59	1
2-Hexanone	10	U	10	0.41	ug/L			08/20/13 02:59	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/20/13 02:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/20/13 02:59	1
Styrene	1.0	U	1.0	0.11	ug/L			08/20/13 02:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/20/13 02:59	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/20/13 02:59	1
Toluene	1.0	U *	1.0	0.13	ug/L			08/20/13 02:59	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 02:59	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/20/13 02:59	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/20/13 02:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/20/13 02:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/20/13 02:59	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/20/13 02:59	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/20/13 02:59	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/20/13 02:59	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-631028-080813							Lab Sample ID: 240-27824-9		
Date Collected: 08/08/13 00:00							Matrix: Water		
Date Received: 08/10/13 09:30									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/20/13 02:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/20/13 02:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/20/13 02:59	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Methyl acetate	10	U	10	0.38	ug/L			08/20/13 02:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/20/13 02:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/20/13 02:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/20/13 02:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/20/13 02:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/20/13 02:59	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/20/13 02:59	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/20/13 02:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	101		63 - 129				08/20/13 02:59	1	
4-Bromofluorobenzene (Surr)	80		66 - 117				08/20/13 02:59	1	
Toluene-d8 (Surr)	94		74 - 115				08/20/13 02:59	1	
Dibromofluoromethane (Surr)	88		75 - 121				08/20/13 02:59	1	

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Client Sample ID: WG-631028-080813-001**

**Date Collected: 08/08/13 09:30**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 16:09	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 16:09	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:09	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:09	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 16:09	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:09	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:09	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 16:09	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:09	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 16:09	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:09	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 16:09	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 16:09	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 16:09	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:09	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:09	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.25</b>	<b>J B</b>	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:09	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 16:09	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 16:09	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 16:09	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 16:09	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:09	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 16:09	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 16:09	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 16:09	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 16:09	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 16:09	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:09	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-001**

**Date Collected: 08/08/13 09:30**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 16:09	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 16:09	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:09	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 16:09	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 16:09	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 16:09	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:09	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 16:09	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 16:09	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 16:09	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:09	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 16:09	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 16:09	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 16:09	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 16:09	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		20 - 110				08/13/13 10:49	08/15/13 16:09	1
2-Fluorophenol (Surr)	56		10 - 110				08/13/13 10:49	08/15/13 16:09	1
2,4,6-Tribromophenol (Surr)	74		21 - 110				08/13/13 10:49	08/15/13 16:09	1
Nitrobenzene-d5 (Surr)	59		21 - 110				08/13/13 10:49	08/15/13 16:09	1
Phenol-d5 (Surr)	60		21 - 110				08/13/13 10:49	08/15/13 16:09	1
Terphenyl-d14 (Surr)	86		24 - 110				08/13/13 10:49	08/15/13 16:09	1

**Client Sample ID: WG-631028-080813-002**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 16:32	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 16:32	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:32	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:32	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 16:32	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:32	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 16:32	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:32	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:32	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:32	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-002**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

**Date Collected: 08/08/13 11:15**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 16:32	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:32	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 16:32	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:32	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 16:32	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:32	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 16:32	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 16:32	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 16:32	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:32	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:32	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:32	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 16:32	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 16:32	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 16:32	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 16:32	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:32	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 16:32	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 16:32	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 16:32	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 16:32	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 16:32	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:32	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 16:32	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 16:32	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:32	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 16:32	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 16:32	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 16:32	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:32	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 16:32	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 16:32	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 16:32	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:32	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 16:32	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 16:32	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 16:32	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 16:32	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 16:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	58		20 - 110				08/13/13 10:49	08/15/13 16:32	1
2-Fluorophenol (Surr)	59		10 - 110				08/13/13 10:49	08/15/13 16:32	1
2,4,6-Tribromophenol (Surr)	71		21 - 110				08/13/13 10:49	08/15/13 16:32	1
Nitrobenzene-d5 (Surr)	62		21 - 110				08/13/13 10:49	08/15/13 16:32	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-002**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits
Phenol-d5 (Surr)	62		21 - 110
Terphenyl-d14 (Surr)	80		24 - 110

Prepared	Analyzed	Dil Fac
08/13/13 10:49	08/15/13 16:32	1
08/13/13 10:49	08/15/13 16:32	1

**Client Sample ID: WG-631028-080813-003**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 16:55	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 16:55	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:55	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:55	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 16:55	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 16:55	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:55	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 16:55	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:55	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 16:55	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:55	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 16:55	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 16:55	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 16:55	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:55	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 16:55	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 16:55	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 16:55	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 16:55	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 16:55	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 16:55	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-003**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

**Date Collected: 08/08/13 11:15**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:55	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 16:55	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 16:55	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 16:55	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 16:55	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 16:55	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 16:55	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 16:55	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 16:55	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:55	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 16:55	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 16:55	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 16:55	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 16:55	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 16:55	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 16:55	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 16:55	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 16:55	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 16:55	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 16:55	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 16:55	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 16:55	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		20 - 110	08/13/13 10:49	08/15/13 16:55	1
2-Fluorophenol (Surr)	54		10 - 110	08/13/13 10:49	08/15/13 16:55	1
2,4,6-Tribromophenol (Surr)	71		21 - 110	08/13/13 10:49	08/15/13 16:55	1
Nitrobenzene-d5 (Surr)	58		21 - 110	08/13/13 10:49	08/15/13 16:55	1
Phenol-d5 (Surr)	59		21 - 110	08/13/13 10:49	08/15/13 16:55	1
Terphenyl-d14 (Surr)	82		24 - 110	08/13/13 10:49	08/15/13 16:55	1

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

**Date Collected: 08/08/13 13:20**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 14:35	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 14:35	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 14:35	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 14:35	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 14:35	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 14:35	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 14:35	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:35	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

**Date Collected: 08/08/13 13:20**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 14:35	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 14:35	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 14:35	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:35	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 14:35	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:35	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 14:35	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 14:35	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 14:35	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 14:35	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 14:35	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 14:35	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 14:35	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.76</b>	<b>J B</b>	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:35	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 14:35	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 14:35	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 14:35	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 14:35	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:35	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 14:35	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 14:35	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 14:35	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 14:35	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 14:35	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:35	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 14:35	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 14:35	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 14:35	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 14:35	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 14:35	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 14:35	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 14:35	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 14:35	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 14:35	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 14:35	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 14:35	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 14:35	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 14:35	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 14:35	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-004**

**Date Collected: 08/08/13 13:20**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 14:35	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 14:35	1
<b>Surrogate</b>									
2-Fluorobiphenyl (Surr)	74		20 - 110				08/13/13 10:49	08/15/13 14:35	1
2-Fluorophenol (Surr)	75		10 - 110				08/13/13 10:49	08/15/13 14:35	1
2,4,6-Tribromophenol (Surr)	86		21 - 110				08/13/13 10:49	08/15/13 14:35	1
Nitrobenzene-d5 (Surr)	79		21 - 110				08/13/13 10:49	08/15/13 14:35	1
Phenol-d5 (Surr)	80		21 - 110				08/13/13 10:49	08/15/13 14:35	1
Terphenyl-d14 (Surr)	104		24 - 110				08/13/13 10:49	08/15/13 14:35	1

**Client Sample ID: WG-631028-080813-005**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 14:58	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 14:58	1
<b>2,4-Dichlorophenol</b>	<b>0.42</b>	<b>J</b>	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 14:58	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:58	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 14:58	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 14:58	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 14:58	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:58	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 14:58	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:58	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 14:58	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 14:58	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 14:58	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 14:58	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 14:58	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-005**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 14:58	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 14:58	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 14:58	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 14:58	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 14:58	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 14:58	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 14:58	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:58	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 14:58	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 14:58	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 14:58	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 14:58	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 14:58	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 14:58	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 14:58	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 14:58	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 14:58	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 14:58	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 14:58	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 14:58	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 14:58	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 14:58	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 14:58	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 14:58	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 14:58	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 14:58	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 14:58	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 14:58	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 14:58	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		20 - 110				08/13/13 10:49	08/15/13 14:58	1
2-Fluorophenol (Surr)	75		10 - 110				08/13/13 10:49	08/15/13 14:58	1
2,4,6-Tribromophenol (Surr)	75		21 - 110				08/13/13 10:49	08/15/13 14:58	1
Nitrobenzene-d5 (Surr)	79		21 - 110				08/13/13 10:49	08/15/13 14:58	1
Phenol-d5 (Surr)	79		21 - 110				08/13/13 10:49	08/15/13 14:58	1
Terphenyl-d14 (Surr)	98		24 - 110				08/13/13 10:49	08/15/13 14:58	1

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 15:22	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 15:22	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 15:22	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:22	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 15:22	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 15:22	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 15:22	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:22	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 15:22	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:22	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 15:22	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 15:22	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 15:22	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 15:22	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 15:22	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 15:22	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 15:22	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.22</b>	<b>J B</b>	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:22	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 15:22	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 15:22	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 15:22	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 15:22	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:22	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 15:22	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 15:22	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 15:22	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 15:22	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 15:22	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:22	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 15:22	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 15:22	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 15:22	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 15:22	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 15:22	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 15:22	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 15:22	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 15:22	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 15:22	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 15:22	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 15:22	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 15:22	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 15:22	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 15:22	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 15:22	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 15:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		20 - 110				08/13/13 10:49	08/15/13 15:22	1
2-Fluorophenol (Surr)	73		10 - 110				08/13/13 10:49	08/15/13 15:22	1
2,4,6-Tribromophenol (Surr)	65		21 - 110				08/13/13 10:49	08/15/13 15:22	1
Nitrobenzene-d5 (Surr)	74		21 - 110				08/13/13 10:49	08/15/13 15:22	1
Phenol-d5 (Surr)	76		21 - 110				08/13/13 10:49	08/15/13 15:22	1
Terphenyl-d14 (Surr)	99		24 - 110				08/13/13 10:49	08/15/13 15:22	1

**Client Sample ID: WG-631028-080813-007**

**Date Collected: 08/08/13 12:40**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 15:45	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4-Dichlorophenol	1.9	U	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 15:45	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:45	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 15:45	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 15:45	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 15:45	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:45	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 15:45	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:45	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 15:45	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 15:45	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 15:45	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-007**

**Date Collected: 08/08/13 12:40**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 15:45	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 15:45	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 15:45	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 15:45	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.28</b>	<b>J B</b>	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 15:45	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 15:45	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 15:45	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 15:45	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 15:45	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:45	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 15:45	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 15:45	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 15:45	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 15:45	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 15:45	1
Fluoranthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 15:45	1
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 15:45	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 15:45	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 15:45	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 15:45	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 15:45	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 15:45	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 15:45	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 15:45	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 15:45	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 15:45	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 15:45	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 15:45	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 15:45	1
Phenanthrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 15:45	1
Pyrene	0.19	U	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 15:45	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 15:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	70		20 - 110				08/13/13 10:49	08/15/13 15:45	1
2-Fluorophenol (Surr)	72		10 - 110				08/13/13 10:49	08/15/13 15:45	1
2,4,6-Tribromophenol (Surr)	79		21 - 110				08/13/13 10:49	08/15/13 15:45	1
Nitrobenzene-d5 (Surr)	78		21 - 110				08/13/13 10:49	08/15/13 15:45	1
Phenol-d5 (Surr)	73		21 - 110				08/13/13 10:49	08/15/13 15:45	1
Terphenyl-d14 (Surr)	97		24 - 110				08/13/13 10:49	08/15/13 15:45	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Client Sample ID: WG-631028-080813-008**

**Lab Sample ID: 240-27824-8**

**Date Collected: 08/08/13 13:15**

**Matrix: Water**

**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.12	ug/L		08/13/13 10:49	08/15/13 17:19	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.38	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,4,5-Trichlorophenol	4.8	U	4.8	0.29	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,4,6-Trichlorophenol	4.8	U	4.8	0.23	ug/L		08/13/13 10:49	08/15/13 17:19	1
<b>2,4-Dichlorophenol</b>	<b>0.29</b>	<b>J</b>	1.9	0.18	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,4-Dimethylphenol	1.9	U	1.9	0.24	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,4-Dinitrophenol	4.8	U	4.8	0.30	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,4-Dinitrotoluene	4.8	U	4.8	0.24	ug/L		08/13/13 10:49	08/15/13 17:19	1
2,6-Dinitrotoluene	4.8	U	4.8	0.76	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Chloronaphthalene	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Chlorophenol	0.95	U	0.95	0.28	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Methylnaphthalene	0.19	U	0.19	0.086	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Methylphenol	0.95	U	0.95	0.16	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Nitroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 17:19	1
2-Nitrophenol	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 17:19	1
3,3'-Dichlorobenzidine	4.8	U	4.8	0.35	ug/L		08/13/13 10:49	08/15/13 17:19	1
3-Nitroaniline	1.9	U	1.9	0.27	ug/L		08/13/13 10:49	08/15/13 17:19	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Chloroaniline	1.9	U	1.9	0.20	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Nitroaniline	1.9	U	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 17:19	1
4-Nitrophenol	4.8	U	4.8	0.28	ug/L		08/13/13 10:49	08/15/13 17:19	1
Acenaphthene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 17:19	1
Acenaphthylene	0.19	U	0.19	0.046	ug/L		08/13/13 10:49	08/15/13 17:19	1
Acetophenone	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 17:19	1
Anthracene	0.19	U	0.19	0.084	ug/L		08/13/13 10:49	08/15/13 17:19	1
Atrazine	0.95	U	0.95	0.32	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzaldehyde	0.95	U	0.95	0.37	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzo[a]anthracene	0.19	U	0.19	0.028	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzo[a]pyrene	0.19	U	0.19	0.049	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzo[b]fluoranthene	0.19	U	0.19	0.038	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.044	ug/L		08/13/13 10:49	08/15/13 17:19	1
Benzo[k]fluoranthene	0.19	U	0.19	0.043	ug/L		08/13/13 10:49	08/15/13 17:19	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 17:19	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.095	ug/L		08/13/13 10:49	08/15/13 17:19	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.25</b>	<b>J B</b>	1.9	0.21	ug/L		08/13/13 10:49	08/15/13 17:19	1
Butyl benzyl phthalate	1.9	U	1.9	0.25	ug/L		08/13/13 10:49	08/15/13 17:19	1
Caprolactam	4.8	U	4.8	0.19	ug/L		08/13/13 10:49	08/15/13 17:19	1
Carbazole	0.95	U	0.95	0.27	ug/L		08/13/13 10:49	08/15/13 17:19	1
Chrysene	0.19	U	0.19	0.048	ug/L		08/13/13 10:49	08/15/13 17:19	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 17:19	1
Dibenzofuran	0.95	U	0.95	0.019	ug/L		08/13/13 10:49	08/15/13 17:19	1
Diethyl phthalate	1.9	U	1.9	0.57	ug/L		08/13/13 10:49	08/15/13 17:19	1
Dimethyl phthalate	1.9	U	1.9	0.28	ug/L		08/13/13 10:49	08/15/13 17:19	1
Di-n-butyl phthalate	1.9	U	1.9	0.64	ug/L		08/13/13 10:49	08/15/13 17:19	1
Di-n-octyl phthalate	1.9	U	1.9	0.22	ug/L		08/13/13 10:49	08/15/13 17:19	1
<b>Fluoranthene</b>	<b>0.16</b>	<b>J</b>	0.19	0.042	ug/L		08/13/13 10:49	08/15/13 17:19	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: WG-631028-080813-008**

**Lab Sample ID: 240-27824-8**

**Matrix: Water**

**Date Collected: 08/08/13 13:15**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.19	U	0.19	0.039	ug/L		08/13/13 10:49	08/15/13 17:19	1
Hexachlorobenzene	0.19	U	0.19	0.081	ug/L		08/13/13 10:49	08/15/13 17:19	1
Hexachlorobutadiene	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 17:19	1
Hexachlorocyclopentadiene	9.5	U	9.5	0.23	ug/L		08/13/13 10:49	08/15/13 17:19	1
Hexachloroethane	0.95	U	0.95	0.18	ug/L		08/13/13 10:49	08/15/13 17:19	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.041	ug/L		08/13/13 10:49	08/15/13 17:19	1
Isophorone	0.95	U	0.95	0.26	ug/L		08/13/13 10:49	08/15/13 17:19	1
Naphthalene	0.19	U	0.19	0.060	ug/L		08/13/13 10:49	08/15/13 17:19	1
Nitrobenzene	0.95	U	0.95	0.038	ug/L		08/13/13 10:49	08/15/13 17:19	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.23	ug/L		08/13/13 10:49	08/15/13 17:19	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.30	ug/L		08/13/13 10:49	08/15/13 17:19	1
Pentachlorophenol	4.8	U	4.8	0.26	ug/L		08/13/13 10:49	08/15/13 17:19	1
Phenol	0.95	U	0.95	0.57	ug/L		08/13/13 10:49	08/15/13 17:19	1
Phenanthrrene	0.19	U	0.19	0.059	ug/L		08/13/13 10:49	08/15/13 17:19	1
<b>Pyrene</b>	<b>0.14</b>	<b>J</b>	0.19	0.040	ug/L		08/13/13 10:49	08/15/13 17:19	1
3 & 4 Methylphenol	1.9	U	1.9	0.76	ug/L		08/13/13 10:49	08/15/13 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		20 - 110				08/13/13 10:49	08/15/13 17:19	1
2-Fluorophenol (Surr)	59		10 - 110				08/13/13 10:49	08/15/13 17:19	1
2,4,6-Tribromophenol (Surr)	71		21 - 110				08/13/13 10:49	08/15/13 17:19	1
Nitrobenzene-d5 (Surr)	62		21 - 110				08/13/13 10:49	08/15/13 17:19	1
Phenol-d5 (Surr)	63		21 - 110				08/13/13 10:49	08/15/13 17:19	1
Terphenyl-d14 (Surr)	63		24 - 110				08/13/13 10:49	08/15/13 17:19	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: WG-631028-080813-001**

**Date Collected: 08/08/13 09:30**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.070	J	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 17:58	1
Aluminum	98	B	50	7.5	ug/L		08/14/13 07:43	08/15/13 17:58	1
Arsenic	1.5	J	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 17:58	1
Beryllium	0.20	J	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 17:58	1
Cadmium	0.22	J	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 17:58	1
Cobalt	0.38	J	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 17:58	1
Chromium	0.92	J	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 17:58	1
Copper	42	B	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 17:58	1
Iron	170	B	100	12	ug/L		08/14/13 07:43	08/15/13 17:58	1
Manganese	46	B	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 17:58	1
Nickel	0.78	J B	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 17:58	1
Lead	26	B	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 17:58	1
Antimony	9.9		2.0	0.11	ug/L		08/14/13 07:43	08/15/13 17:58	1
Selenium	0.71	J	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 17:58	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 17:58	1
Vanadium	1.4	J B	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 17:58	1
Zinc	24	B	20	2.1	ug/L		08/14/13 07:43	08/15/13 17:58	1
Barium	78	B	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 17:58	1
Calcium	40000	B	1000	27	ug/L		08/14/13 07:43	08/15/13 17:58	1
Potassium	1600	B	1000	5.1	ug/L		08/14/13 07:43	08/15/13 17:58	1
Magnesium	17000	B	1000	15	ug/L		08/14/13 07:43	08/15/13 17:58	1
Sodium	20000	B	1000	4.2	ug/L		08/14/13 07:43	08/15/13 17:58	1

**Client Sample ID: WG-631028-080813-002**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.020	J	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:10	1
Aluminum	260	B	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:10	1
Arsenic	2.2	J	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:10	1
Beryllium	0.082	J	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:10	1
Cadmium	0.029	J	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:10	1
Cobalt	0.79	J	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:10	1
Chromium	0.59	J	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:10	1
Copper	7.6	B	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:10	1
Iron	1200	B	100	12	ug/L		08/14/13 07:43	08/15/13 18:10	1
Manganese	81	B	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:10	1
Nickel	1.3	J B	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:10	1
Lead	3.3	B	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:10	1
Antimony	0.72	J	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:10	1
Selenium	0.45	J	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:10	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:10	1
Vanadium	1.3	J B	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:10	1
Zinc	20	B	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:10	1
Barium	83	B	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:10	1
Calcium	92000	B	1000	27	ug/L		08/14/13 07:43	08/15/13 18:10	1
Potassium	2600	B	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:10	1
Magnesium	61000	B	1000	15	ug/L		08/14/13 07:43	08/15/13 18:10	1
Sodium	55000	B	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:10	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: WG-631028-080813-003**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

**Date Collected: 08/08/13 11:15**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Aluminum</b>	<b>330</b>	<b>B</b>	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Arsenic</b>	<b>2.3</b>	<b>J</b>	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Beryllium</b>	<b>0.068</b>	<b>J</b>	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Cadmium</b>	<b>0.030</b>	<b>J</b>	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Cobalt</b>	<b>0.78</b>	<b>J</b>	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Chromium</b>	<b>0.65</b>	<b>J</b>	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Copper</b>	<b>8.0</b>	<b>B</b>	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Iron</b>	<b>1300</b>	<b>B</b>	100	12	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Manganese</b>	<b>78</b>	<b>B</b>	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Nickel</b>	<b>1.4</b>	<b>J B</b>	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Lead</b>	<b>3.5</b>	<b>B</b>	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Antimony</b>	<b>0.70</b>	<b>J</b>	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Selenium</b>	<b>0.56</b>	<b>J</b>	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:14	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Vanadium</b>	<b>1.6</b>	<b>J B</b>	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Zinc</b>	<b>23</b>	<b>B</b>	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Barium</b>	<b>82</b>	<b>B</b>	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Calcium</b>	<b>90000</b>	<b>B</b>	1000	27	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Potassium</b>	<b>2700</b>	<b>B</b>	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Magnesium</b>	<b>58000</b>	<b>B</b>	1000	15	ug/L		08/14/13 07:43	08/15/13 18:14	1
<b>Sodium</b>	<b>54000</b>	<b>B</b>	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:14	1

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

**Date Collected: 08/08/13 13:20**  
**Date Received: 08/10/13 09:30**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:18	1
Aluminum	50	U	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Arsenic</b>	<b>0.81</b>	<b>J</b>	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:18	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:18	1
Cadmium	1.0	U	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Cobalt</b>	<b>0.20</b>	<b>J</b>	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:18	1
Chromium	2.0	U	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Copper</b>	<b>0.70</b>	<b>J B</b>	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Iron</b>	<b>900</b>	<b>B</b>	100	12	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Manganese</b>	<b>21</b>	<b>B</b>	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Nickel</b>	<b>0.48</b>	<b>J B</b>	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Lead</b>	<b>0.26</b>	<b>J B</b>	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:18	1
Antimony	2.0	U	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Selenium</b>	<b>0.35</b>	<b>J</b>	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:18	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Vanadium</b>	<b>0.77</b>	<b>J B</b>	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Zinc</b>	<b>3.9</b>	<b>J B</b>	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Barium</b>	<b>190</b>	<b>B</b>	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Calcium</b>	<b>77000</b>	<b>B</b>	1000	27	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Potassium</b>	<b>4000</b>	<b>B</b>	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Magnesium</b>	<b>74000</b>	<b>B</b>	1000	15	ug/L		08/14/13 07:43	08/15/13 18:18	1
<b>Sodium</b>	<b>59000</b>	<b>B</b>	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:18	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: WG-631028-080813-005**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.012	J	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:22	1
Aluminum	50	U	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:22	1
Arsenic	10		5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:22	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:22	1
Cadmium	1.0	U	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:22	1
Cobalt	0.10	J	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:22	1
Chromium	0.30	J	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:22	1
Copper	0.89	J B	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:22	1
Iron	320	B	100	12	ug/L		08/14/13 07:43	08/15/13 18:22	1
Manganese	15	B	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:22	1
Nickel	0.34	J B	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:22	1
Lead	0.26	J B	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:22	1
Antimony	2.0	U	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:22	1
Selenium	5.0	U	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:22	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:22	1
Vanadium	0.89	J B	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:22	1
Zinc	20	U	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:22	1
Barium	40	B	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:22	1
Calcium	150000	B	1000	27	ug/L		08/14/13 07:43	08/15/13 18:22	1
Potassium	1900	B	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:22	1
Magnesium	100000	B	1000	15	ug/L		08/14/13 07:43	08/15/13 18:22	1
Sodium	65000	B	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:22	1

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:26	1
Aluminum	50	U	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:26	1
Arsenic	0.14	J	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:26	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:26	1
Cadmium	1.0	U	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:26	1
Cobalt	0.19	J	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:26	1
Chromium	4.9		2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:26	1
Copper	0.90	J B	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:26	1
Iron	100	U	100	12	ug/L		08/14/13 07:43	08/15/13 18:26	1
Manganese	5.0	U	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:26	1
Nickel	13	B	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:26	1
Lead	1.0	U	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:26	1
Antimony	2.0	U	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:26	1
Selenium	5.0	U	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:26	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:26	1
Vanadium	1.0	J B	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:26	1
Zinc	20	U	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:26	1
Barium	5.0	U	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:26	1
Calcium	44	J B	1000	27	ug/L		08/14/13 07:43	08/15/13 18:26	1
Potassium	7.2	J B	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:26	1
Magnesium	47	J B	1000	15	ug/L		08/14/13 07:43	08/15/13 18:26	1
Sodium	130	J B	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:26	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: WG-631028-080813-007**

**Date Collected: 08/08/13 12:40**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:30	1
Aluminum	50	U	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Arsenic</b>	<b>1.6</b>	<b>J</b>	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:30	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Cadmium</b>	<b>0.026</b>	<b>J</b>	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Cobalt</b>	<b>0.64</b>	<b>J</b>	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:30	1
Chromium	2.0	U	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Copper</b>	<b>6.3</b>	<b>B</b>	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Iron</b>	<b>390</b>	<b>B</b>	100	12	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Manganese</b>	<b>55</b>	<b>B</b>	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Nickel</b>	<b>1.2</b>	<b>J B</b>	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Lead</b>	<b>2.3</b>	<b>B</b>	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:30	1
Antimony	2.0	U	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:30	1
Selenium	5.0	U	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:30	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Vanadium</b>	<b>0.72</b>	<b>J B</b>	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Zinc</b>	<b>12</b>	<b>J B</b>	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Barium</b>	<b>130</b>	<b>B</b>	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Calcium</b>	<b>150000</b>	<b>B</b>	1000	27	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Potassium</b>	<b>3400</b>	<b>B</b>	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Magnesium</b>	<b>97000</b>	<b>B</b>	1000	15	ug/L		08/14/13 07:43	08/15/13 18:30	1
<b>Sodium</b>	<b>140000</b>	<b>B</b>	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:30	1

**Client Sample ID: WG-631028-080813-008**

**Date Collected: 08/08/13 13:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.078	J	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 18:34	1
Aluminum	2000	B	50	7.5	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Arsenic</b>	<b>1.3</b>	<b>J</b>	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 18:34	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Cadmium</b>	<b>0.22</b>	<b>J</b>	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Cobalt</b>	<b>1.5</b>		1.0	0.020	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Chromium</b>	<b>3.2</b>		2.0	0.13	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Copper</b>	<b>83</b>	<b>B</b>	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Iron</b>	<b>3100</b>	<b>B</b>	100	12	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Manganese</b>	<b>140</b>	<b>B</b>	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Nickel</b>	<b>4.4</b>	<b>B</b>	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Lead</b>	<b>89</b>	<b>B</b>	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Antimony</b>	<b>4.3</b>		2.0	0.11	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Selenium</b>	<b>0.47</b>	<b>J</b>	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 18:34	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Vanadium</b>	<b>5.1</b>	<b>B</b>	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Zinc</b>	<b>150</b>	<b>B</b>	20	2.1	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Barium</b>	<b>180</b>	<b>B</b>	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Calcium</b>	<b>75000</b>	<b>B</b>	1000	27	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Potassium</b>	<b>1800</b>	<b>B</b>	1000	5.1	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Magnesium</b>	<b>60000</b>	<b>B</b>	1000	15	ug/L		08/14/13 07:43	08/15/13 18:34	1
<b>Sodium</b>	<b>93000</b>	<b>B</b>	1000	4.2	ug/L		08/14/13 07:43	08/15/13 18:34	1

TestAmerica Canton

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 7470A - Mercury (CVAA)

**Client Sample ID: WG-631028-080813-001**

**Date Collected: 08/08/13 09:30**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:12	1

**Client Sample ID: WG-631028-080813-002**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:17	1

**Client Sample ID: WG-631028-080813-003**

**Date Collected: 08/08/13 11:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:18	1

**Client Sample ID: WG-631028-080813-004**

**Date Collected: 08/08/13 13:20**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:20	1

**Client Sample ID: WG-631028-080813-005**

**Date Collected: 08/08/13 10:50**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:21	1

**Client Sample ID: EB-631028-080813-006**

**Date Collected: 08/08/13 10:00**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:23	1

**Client Sample ID: WG-631028-080813-007**

**Date Collected: 08/08/13 12:40**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:24	1

**Client Sample ID: WG-631028-080813-008**

**Date Collected: 08/08/13 13:15**

**Date Received: 08/10/13 09:30**

**Lab Sample ID: 240-27824-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	D	08/13/13 10:20	08/13/13 14:26	1

TestAmerica Canton

# Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-117)	TOL (74-115)	DBFM (75-121)
240-27824-1	WG-631028-080813-001	97	79	90	86
240-27824-2	WG-631028-080813-002	98	82	97	84
240-27824-3	WG-631028-080813-003	96	75	90	82
240-27824-4	WG-631028-080813-004	96	78	93	87
240-27824-5	WG-631028-080813-005	98	79	94	89
240-27824-6	EB-631028-080813-006	99	84	94	86
240-27824-7	WG-631028-080813-007	93	77	90	81
240-27824-8	WG-631028-080813-008	97	76	93	82
240-27824-9	TB-631028-080813	101	80	94	88
LCS 240-98068/4	Lab Control Sample	88	95	109	91
MB 240-98068/5	Method Blank	93	85	92	91

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (20-110)	2FP (10-110)	TBP (21-110)	NBZ (21-110)	PHL (21-110)	TPH (24-110)
240-27824-1	WG-631028-080813-001	60	56	74	59	60	86
240-27824-2	WG-631028-080813-002	58	59	71	62	62	80
240-27824-3	WG-631028-080813-003	58	54	71	58	59	82
240-27824-4	WG-631028-080813-004	74	75	86	79	80	104
240-27824-5	WG-631028-080813-005	73	75	75	79	79	98
240-27824-6	EB-631028-080813-006	69	73	65	74	76	99
240-27824-7	WG-631028-080813-007	70	72	79	78	73	97
240-27824-8	WG-631028-080813-008	59	59	71	62	63	63
LCS 240-97238/17-A	Lab Control Sample	79	72	81	83	80	101
MB 240-97238/16-A	Method Blank	79	84	70	85	87	110

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-98068/5**

**Matrix: Water**

**Analysis Batch: 98068**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	10	1.1	ug/L			08/19/13 23:39	1
Benzene	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			08/19/13 23:39	1
Bromoform	1.0	U	1.0	0.64	ug/L			08/19/13 23:39	1
Bromomethane	1.0	U	1.0	0.41	ug/L			08/19/13 23:39	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			08/19/13 23:39	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/19/13 23:39	1
Chloroethane	1.0	U	1.0	0.29	ug/L			08/19/13 23:39	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/19/13 23:39	1
Chloromethane	1.0	U	1.0	0.30	ug/L			08/19/13 23:39	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			08/19/13 23:39	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			08/19/13 23:39	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/19/13 23:39	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			08/19/13 23:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			08/19/13 23:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			08/19/13 23:39	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/19/13 23:39	1
2-Hexanone	10	U	10	0.41	ug/L			08/19/13 23:39	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/19/13 23:39	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.32	ug/L			08/19/13 23:39	1
Styrene	1.0	U	1.0	0.11	ug/L			08/19/13 23:39	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			08/19/13 23:39	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/19/13 23:39	1
Toluene	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			08/19/13 23:39	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/19/13 23:39	1
Xylenes, Total	2.0	U	2.0	0.14	ug/L			08/19/13 23:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			08/19/13 23:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/19/13 23:39	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			08/19/13 23:39	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67	ug/L			08/19/13 23:39	1
Ethylene Dibromide	1.0	U	1.0	0.24	ug/L			08/19/13 23:39	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			08/19/13 23:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/19/13 23:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/19/13 23:39	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Methyl acetate	10	U	10	0.38	ug/L			08/19/13 23:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ug/L			08/19/13 23:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			08/19/13 23:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			08/19/13 23:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.14	ug/L			08/19/13 23:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1
Trichlorofluoromethane	1.0	U	1.0	0.21	ug/L			08/19/13 23:39	1
Chlorodibromomethane	1.0	U	1.0	0.18	ug/L			08/19/13 23:39	1
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			08/19/13 23:39	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-98068/5**

**Matrix: Water**

**Analysis Batch: 98068**

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

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	93		63 - 129				08/19/13 23:39	1
4-Bromofluorobenzene (Surr)	85		66 - 117				08/19/13 23:39	1
Toluene-d8 (Surr)	92		74 - 115				08/19/13 23:39	1
Dibromofluoromethane (Surr)	91		75 - 121				08/19/13 23:39	1

**Lab Sample ID: LCS 240-98068/4**

**Matrix: Water**

**Analysis Batch: 98068**

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

Analyte	Spike Added	LCs	LCS	Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
Acetone	20.0	16.9		ug/L		84	43 - 136	
Benzene	10.0	10.4		ug/L		104	83 - 112	
Dichlorobromomethane	10.0	9.77		ug/L		98	72 - 121	
Bromoform	10.0	8.38		ug/L		84	40 - 131	
Bromomethane	10.0	4.81		ug/L		48	11 - 185	
2-Butanone (MEK)	20.0	18.8		ug/L		94	60 - 126	
Carbon disulfide	10.0	12.1		ug/L		121	62 - 142	
Carbon tetrachloride	10.0	9.51		ug/L		95	66 - 128	
Chlorobenzene	10.0	9.68		ug/L		97	85 - 110	
Chloroethane	10.0	5.17		ug/L		52	25 - 153	
Chloroform	10.0	9.92		ug/L		99	79 - 117	
Chloromethane	10.0	7.83		ug/L		78	44 - 126	
1,1-Dichloroethane	10.0	10.7		ug/L		107	82 - 115	
1,2-Dichloroethane	10.0	9.60		ug/L		96	71 - 127	
1,1-Dichloroethene	10.0	9.77		ug/L		98	78 - 131	
1,2-Dichloropropane	10.0	10.2		ug/L		102	81 - 115	
cis-1,3-Dichloropropene	10.0	7.29		ug/L		73	61 - 115	
trans-1,3-Dichloropropene	10.0	9.21		ug/L		92	58 - 117	
Ethylbenzene	10.0	10.3		ug/L		103	83 - 112	
2-Hexanone	20.0	26.4		ug/L		132	55 - 133	
Methylene Chloride	10.0	9.29		ug/L		93	66 - 131	
4-Methyl-2-pentanone (MIBK)	20.0	21.2		ug/L		106	63 - 128	
Styrene	10.0	10.5		ug/L		105	79 - 114	
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	68 - 118	
Tetrachloroethene	10.0	9.45		ug/L		94	79 - 114	
Toluene	10.0	11.4 *		ug/L		114	84 - 111	
Trichloroethene	10.0	9.06		ug/L		91	76 - 117	
Vinyl chloride	10.0	6.77		ug/L		68	53 - 127	
Xylenes, Total	30.0	31.8		ug/L		106	83 - 112	
1,1,1-Trichloroethane	10.0	9.51		ug/L		95	74 - 118	
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	80 - 112	
Cyclohexane	10.0	10.4		ug/L		104	54 - 121	
1,2-Dibromo-3-Chloropropane	10.0	9.69		ug/L		97	42 - 136	
Ethylene Dibromide	10.0	9.49		ug/L		95	79 - 113	
Dichlorodifluoromethane	10.0	5.26		ug/L		53	19 - 129	
cis-1,2-Dichloroethene	10.0	9.89		ug/L		99	80 - 113	
trans-1,2-Dichloroethene	10.0	9.82		ug/L		98	83 - 117	
Isopropylbenzene	10.0	10.3		ug/L		103	75 - 114	

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-98068/4**

**Matrix: Water**

**Analysis Batch: 98068**

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

Analyte	Spike	LCS			Unit	D	%Rec.	
	Added	Result	Qualifier	%Rec.			Limits	
Methyl acetate	10.0	11.1		ug/L		111	58 - 131	
Methyl tert-butyl ether	10.0	9.57		ug/L		96	52 - 144	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11		ug/L		91	74 - 151	
1,2,4-Trichlorobenzene	10.0	8.57		ug/L		86	48 - 135	
1,2-Dichlorobenzene	10.0	9.81		ug/L		98	81 - 110	
1,3-Dichlorobenzene	10.0	9.68		ug/L		97	80 - 110	
1,4-Dichlorobenzene	10.0	9.31		ug/L		93	82 - 110	
Trichlorofluoromethane	10.0	6.68		ug/L		67	49 - 157	
Methylcyclohexane	10.0	8.97		ug/L		90	56 - 127	
m-Xylene & p-Xylene	20.0	21.3		ug/L		107	83 - 113	
o-Xylene	10.0	10.5		ug/L		105	83 - 113	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>	<b>Qualifier</b>	<b>Limits</b>			
1,2-Dichloroethane-d4 (Surr)		88			63 - 129			
4-Bromofluorobenzene (Surr)		95			66 - 117			
Toluene-d8 (Surr)		109			74 - 115			
Dibromofluoromethane (Surr)		91			75 - 121			

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-97238/16-A**

**Matrix: Water**

**Analysis Batch: 97595**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 97238**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	1.0	U	1.0	0.13	ug/L		08/13/13 10:49	08/15/13 11:51	1
bis (2-chloroisopropyl) ether	1.0	U	1.0	0.40	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4,5-Trichlorophenol	5.0	U	5.0	0.30	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4,6-Trichlorophenol	5.0	U	5.0	0.24	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4-Dichlorophenol	2.0	U	2.0	0.19	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4-Dimethylphenol	2.0	U	2.0	0.25	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4-Dinitrophenol	5.0	U	5.0	0.32	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,4-Dinitrotoluene	5.0	U	5.0	0.25	ug/L		08/13/13 10:49	08/15/13 11:51	1
2,6-Dinitrotoluene	5.0	U	5.0	0.80	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Chloronaphthalene	1.0	U	1.0	0.10	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Chlorophenol	1.0	U	1.0	0.29	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Methylnaphthalene	0.20	U	0.20	0.090	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Methylphenol	1.0	U	1.0	0.17	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Nitroaniline	2.0	U	2.0	0.21	ug/L		08/13/13 10:49	08/15/13 11:51	1
2-Nitrophenol	2.0	U	2.0	0.28	ug/L		08/13/13 10:49	08/15/13 11:51	1
3,3'-Dichlorobenzidine	5.0	U	5.0	0.37	ug/L		08/13/13 10:49	08/15/13 11:51	1
3-Nitroaniline	2.0	U	2.0	0.28	ug/L		08/13/13 10:49	08/15/13 11:51	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4	ug/L		08/13/13 10:49	08/15/13 11:51	1
4-Bromophenyl phenyl ether	2.0	U	2.0	0.22	ug/L		08/13/13 10:49	08/15/13 11:51	1
4-Chloro-3-methylphenol	2.0	U	2.0	0.21	ug/L		08/13/13 10:49	08/15/13 11:51	1
4-Chloroaniline	2.0	U	2.0	0.21	ug/L		08/13/13 10:49	08/15/13 11:51	1
4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30	ug/L		08/13/13 10:49	08/15/13 11:51	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-97238/16-A**

**Matrix: Water**

**Analysis Batch: 97595**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 97238**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
4-Nitroaniline	2.0	U	2.0		2.0	0.22	ug/L	08/13/13 10:49	08/15/13 11:51		1
4-Nitrophenol	5.0	U			5.0	0.29	ug/L	08/13/13 10:49	08/15/13 11:51		1
Acenaphthene	0.20	U			0.20	0.044	ug/L	08/13/13 10:49	08/15/13 11:51		1
Acenaphthylene	0.20	U			0.20	0.048	ug/L	08/13/13 10:49	08/15/13 11:51		1
Acetophenone	1.0	U			1.0	0.34	ug/L	08/13/13 10:49	08/15/13 11:51		1
Anthracene	0.20	U			0.20	0.088	ug/L	08/13/13 10:49	08/15/13 11:51		1
Atrazine	1.0	U			1.0	0.34	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzaldehyde	1.0	U			1.0	0.39	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzo[a]anthracene	0.20	U			0.20	0.030	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzo[a]pyrene	0.20	U			0.20	0.051	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzo[b]fluoranthene	0.20	U			0.20	0.039	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzo[g,h,i]perylene	0.20	U			0.20	0.046	ug/L	08/13/13 10:49	08/15/13 11:51		1
Benzo[k]fluoranthene	0.20	U			0.20	0.045	ug/L	08/13/13 10:49	08/15/13 11:51		1
Bis(2-chloroethoxy)methane	1.0	U			1.0	0.32	ug/L	08/13/13 10:49	08/15/13 11:51		1
Bis(2-chloroethyl)ether	1.0	U			1.0	0.10	ug/L	08/13/13 10:49	08/15/13 11:51		1
Bis(2-ethylhexyl) phthalate	0.441	J			2.0	0.22	ug/L	08/13/13 10:49	08/15/13 11:51		1
Butyl benzyl phthalate	2.0	U			2.0	0.26	ug/L	08/13/13 10:49	08/15/13 11:51		1
Caprolactam	5.0	U			5.0	0.20	ug/L	08/13/13 10:49	08/15/13 11:51		1
Carbazole	1.0	U			1.0	0.28	ug/L	08/13/13 10:49	08/15/13 11:51		1
Chrysene	0.20	U			0.20	0.050	ug/L	08/13/13 10:49	08/15/13 11:51		1
Dibenz(a,h)anthracene	0.20	U			0.20	0.045	ug/L	08/13/13 10:49	08/15/13 11:51		1
Dibenzofuran	1.0	U			1.0	0.020	ug/L	08/13/13 10:49	08/15/13 11:51		1
Diethyl phthalate	2.0	U			2.0	0.60	ug/L	08/13/13 10:49	08/15/13 11:51		1
Dimethyl phthalate	2.0	U			2.0	0.29	ug/L	08/13/13 10:49	08/15/13 11:51		1
Di-n-butyl phthalate	2.0	U			2.0	0.67	ug/L	08/13/13 10:49	08/15/13 11:51		1
Di-n-octyl phthalate	2.0	U			2.0	0.23	ug/L	08/13/13 10:49	08/15/13 11:51		1
Fluoranthene	0.20	U			0.20	0.045	ug/L	08/13/13 10:49	08/15/13 11:51		1
Fluorene	0.20	U			0.20	0.041	ug/L	08/13/13 10:49	08/15/13 11:51		1
Hexachlorobenzene	0.20	U			0.20	0.085	ug/L	08/13/13 10:49	08/15/13 11:51		1
Hexachlorobutadiene	1.0	U			1.0	0.27	ug/L	08/13/13 10:49	08/15/13 11:51		1
Hexachlorocyclopentadiene	10	U			10	0.24	ug/L	08/13/13 10:49	08/15/13 11:51		1
Hexachloroethane	1.0	U			1.0	0.19	ug/L	08/13/13 10:49	08/15/13 11:51		1
Indeno[1,2,3-cd]pyrene	0.20	U			0.20	0.043	ug/L	08/13/13 10:49	08/15/13 11:51		1
Isophorone	1.0	U			1.0	0.27	ug/L	08/13/13 10:49	08/15/13 11:51		1
Naphthalene	0.20	U			0.20	0.063	ug/L	08/13/13 10:49	08/15/13 11:51		1
Nitrobenzene	1.0	U			1.0	0.040	ug/L	08/13/13 10:49	08/15/13 11:51		1
N-Nitrosodi-n-propylamine	1.0	U			1.0	0.24	ug/L	08/13/13 10:49	08/15/13 11:51		1
N-Nitrosodiphenylamine	1.0	U			1.0	0.31	ug/L	08/13/13 10:49	08/15/13 11:51		1
Pentachlorophenol	5.0	U			5.0	0.27	ug/L	08/13/13 10:49	08/15/13 11:51		1
Phenol	1.0	U			1.0	0.60	ug/L	08/13/13 10:49	08/15/13 11:51		1
Phenanthrene	0.20	U			0.20	0.062	ug/L	08/13/13 10:49	08/15/13 11:51		1
Pyrene	0.20	U			0.20	0.042	ug/L	08/13/13 10:49	08/15/13 11:51		1
3 & 4 Methylphenol	2.0	U			2.0	0.80	ug/L	08/13/13 10:49	08/15/13 11:51		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2-Fluorobiphenyl (Surr)	79		79		20 - 110	08/13/13 10:49	08/15/13 11:51	1
2-Fluorophenol (Surr)	84		84		10 - 110	08/13/13 10:49	08/15/13 11:51	1
2,4,6-Tribromophenol (Surr)	70		70		21 - 110	08/13/13 10:49	08/15/13 11:51	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-97238/16-A**

**Matrix: Water**

**Analysis Batch: 97595**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 97238**

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	85	21 - 110	08/13/13 10:49	08/15/13 11:51	1			
Phenol-d5 (Surr)	87	21 - 110	08/13/13 10:49	08/15/13 11:51	1			
Terphenyl-d14 (Surr)	110	24 - 110	08/13/13 10:49	08/15/13 11:51	1			

**Lab Sample ID: LCS 240-97238/17-A**

**Matrix: Water**

**Analysis Batch: 97775**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 97238**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	20.0	16.2	ug/L	81	43 - 110		
bis (2-chloroisopropyl) ether	20.0	14.5	ug/L	73	37 - 110		
2,4,5-Trichlorophenol	20.0	16.6	ug/L	83	48 - 110		
2,4,6-Trichlorophenol	20.0	16.2	ug/L	81	45 - 110		
2,4-Dichlorophenol	20.0	16.5	ug/L	82	41 - 110		
2,4-Dimethylphenol	20.0	16.2	ug/L	81	32 - 110		
2,4-Dinitrophenol	40.0	30.3	ug/L	76	10 - 110		
2,4-Dinitrotoluene	20.0	19.5	ug/L	97	53 - 110		
2,6-Dinitrotoluene	20.0	19.1	ug/L	96	54 - 110		
2-Chloronaphthalene	20.0	15.9	ug/L	80	43 - 110		
2-Chlorophenol	20.0	16.4	ug/L	82	29 - 110		
2-Methylnaphthalene	20.0	16.1	ug/L	80	45 - 110		
2-Methylphenol	20.0	16.0	ug/L	80	42 - 110		
2-Nitroaniline	20.0	17.9	ug/L	90	54 - 110		
2-Nitrophenol	20.0	17.7	ug/L	88	40 - 110		
3,3'-Dichlorobenzidine	40.0	37.4	ug/L	94	22 - 110		
3-Nitroaniline	20.0	18.2	ug/L	91	53 - 110		
4,6-Dinitro-2-methylphenol	40.0	37.0	ug/L	93	31 - 110		
4-Bromophenyl phenyl ether	20.0	17.3	ug/L	86	45 - 110		
4-Chloro-3-methylphenol	20.0	16.9	ug/L	84	52 - 110		
4-Chloroaniline	20.0	16.1	ug/L	81	44 - 110		
4-Chlorophenyl phenyl ether	20.0	16.7	ug/L	84	47 - 110		
4-Nitroaniline	20.0	20.9	ug/L	105	54 - 110		
4-Nitrophenol	40.0	39.1	ug/L	98	33 - 112		
Acenaphthene	20.0	16.6	ug/L	83	47 - 110		
Acenaphthylene	20.0	15.8	ug/L	79	49 - 110		
Acetophenone	20.0	16.8	ug/L	84	46 - 110		
Anthracene	20.0	17.6	ug/L	88	52 - 110		
Atrazine	40.0	34.9	ug/L	87	66 - 126		
Benzaldehyde	40.0	32.4	ug/L	81	38 - 110		
Benzo[a]anthracene	20.0	17.0	ug/L	85	52 - 110		
Benzo[a]pyrene	20.0	16.8	ug/L	84	44 - 110		
Benzo[b]fluoranthene	20.0	18.6	ug/L	93	48 - 110		
Benzo[g,h,i]perylene	20.0	17.6	ug/L	88	50 - 110		
Benzo[k]fluoranthene	20.0	17.2	ug/L	86	49 - 110		
Bis(2-chloroethoxy)methane	20.0	16.5	ug/L	82	43 - 110		
Bis(2-chloroethyl)ether	20.0	15.5	ug/L	78	40 - 110		
Bis(2-ethylhexyl) phthalate	20.0	17.9	ug/L	89	39 - 116		
Butyl benzyl phthalate	20.0	19.2	ug/L	96	55 - 110		

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-97238/17-A**

**Matrix: Water**

**Analysis Batch: 97775**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 97238**

Analyte	Spike	LCS		Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Caprolactam	40.0	37.1		ug/L		93	45 - 111	
Carbazole	20.0	20.7		ug/L		103	55 - 110	
Chrysene	20.0	17.5		ug/L		87	55 - 110	
Dibenz(a,h)anthracene	20.0	15.8		ug/L		79	49 - 110	
Dibenzofuran	20.0	16.7		ug/L		84	51 - 110	
Diethyl phthalate	20.0	17.8		ug/L		89	58 - 110	
Dimethyl phthalate	20.0	17.4		ug/L		87	57 - 110	
Di-n-butyl phthalate	20.0	18.4		ug/L		92	57 - 110	
Di-n-octyl phthalate	20.0	15.8		ug/L		79	40 - 110	
Fluoranthene	20.0	17.6		ug/L		88	54 - 110	
Fluorene	20.0	16.7		ug/L		83	52 - 110	
Hexachlorobenzene	20.0	15.8		ug/L		79	50 - 110	
Hexachlorobutadiene	20.0	13.0		ug/L		65	33 - 110	
Hexachlorocyclopentadiene	20.0	2.12 J		ug/L		11	10 - 110	
Hexachloroethane	20.0	13.1		ug/L		65	35 - 110	
Indeno[1,2,3-cd]pyrene	20.0	15.7		ug/L		79	50 - 110	
Isophorone	20.0	14.7		ug/L		74	49 - 110	
Naphthalene	20.0	15.4		ug/L		77	44 - 110	
Nitrobenzene	20.0	16.4		ug/L		82	42 - 110	
N-Nitrosodi-n-propylamine	20.0	16.1		ug/L		81	47 - 110	
N-Nitrosodiphenylamine	40.0	35.8		ug/L		90	50 - 110	
Pentachlorophenol	40.0	28.6		ug/L		72	18 - 110	
Phenol	20.0	16.2		ug/L		81	33 - 110	
Phenanthrene	20.0	17.2		ug/L		86	53 - 110	
Pyrene	20.0	18.7		ug/L		93	52 - 110	
3 & 4 Methylphenol	20.0	16.4		ug/L		82	44 - 110	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	79		20 - 110
2-Fluorophenol (Surr)	72		10 - 110
2,4,6-Tribromophenol (Surr)	81		21 - 110
Nitrobenzene-d5 (Surr)	83		21 - 110
Phenol-d5 (Surr)	80		21 - 110
Terphenyl-d14 (Surr)	101		24 - 110

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 240-97354/1-A**

**Matrix: Water**

**Analysis Batch: 97735**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 97354**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	1.0	U	1.0	0.0083	ug/L		08/14/13 07:43	08/15/13 17:35	1
Aluminum	8.10	J	50	7.5	ug/L		08/14/13 07:43	08/15/13 17:35	1
Arsenic	5.0	U	5.0	0.063	ug/L		08/14/13 07:43	08/15/13 17:35	1
Beryllium	1.0	U	1.0	0.031	ug/L		08/14/13 07:43	08/15/13 17:35	1
Cadmium	1.0	U	1.0	0.026	ug/L		08/14/13 07:43	08/15/13 17:35	1
Cobalt	1.0	U	1.0	0.020	ug/L		08/14/13 07:43	08/15/13 17:35	1

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 240-97354/1-A**

**Matrix: Water**

**Analysis Batch: 97735**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 97354**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.0	U	2.0	0.13	ug/L		08/14/13 07:43	08/15/13 17:35	1
Copper	1.54	J	2.0	0.24	ug/L		08/14/13 07:43	08/15/13 17:35	1
Iron	42.3	J	100	12	ug/L		08/14/13 07:43	08/15/13 17:35	1
Manganese	1.20	J	5.0	0.41	ug/L		08/14/13 07:43	08/15/13 17:35	1
Nickel	0.215	J	2.0	0.088	ug/L		08/14/13 07:43	08/15/13 17:35	1
Lead	0.247	J	1.0	0.14	ug/L		08/14/13 07:43	08/15/13 17:35	1
Antimony	2.0	U	2.0	0.11	ug/L		08/14/13 07:43	08/15/13 17:35	1
Selenium	5.0	U	5.0	0.34	ug/L		08/14/13 07:43	08/15/13 17:35	1
Thallium	2.0	U	2.0	0.40	ug/L		08/14/13 07:43	08/15/13 17:35	1
Vanadium	0.190	J	5.0	0.15	ug/L		08/14/13 07:43	08/15/13 17:35	1
Zinc	39.9		20	2.1	ug/L		08/14/13 07:43	08/15/13 17:35	1
Barium	1.18	J	5.0	0.32	ug/L		08/14/13 07:43	08/15/13 17:35	1
Calcium	326	J	1000	27	ug/L		08/14/13 07:43	08/15/13 17:35	1
Potassium	35.9	J	1000	5.1	ug/L		08/14/13 07:43	08/15/13 17:35	1
Magnesium	120	J	1000	15	ug/L		08/14/13 07:43	08/15/13 17:35	1
Sodium	87.5	J	1000	4.2	ug/L		08/14/13 07:43	08/15/13 17:35	1

**Lab Sample ID: LCS 240-97354/2-A**

**Matrix: Water**

**Analysis Batch: 97735**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 97354**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Silver	100	100		ug/L		100	80 - 120
Aluminum	10000	9060		ug/L		91	80 - 120
Arsenic	1000	1010		ug/L		101	80 - 120
Beryllium	1000	878		ug/L		88	80 - 120
Cadmium	1000	1070		ug/L		107	80 - 120
Cobalt	1000	1080		ug/L		108	80 - 120
Chromium	1000	1050		ug/L		105	80 - 120
Copper	1000	1110		ug/L		111	80 - 120
Iron	10000	10400		ug/L		104	80 - 120
Manganese	1000	1010		ug/L		101	80 - 120
Nickel	1000	1100		ug/L		110	80 - 120
Lead	1000	995		ug/L		100	80 - 120
Antimony	100	103		ug/L		103	80 - 120
Selenium	1000	982		ug/L		98	80 - 120
Thallium	250	250		ug/L		100	80 - 120
Vanadium	1000	1020		ug/L		102	80 - 120
Zinc	1000	1140		ug/L		114	80 - 120
Barium	1000	1010		ug/L		101	80 - 120
Calcium	10000	10400		ug/L		104	80 - 120
Potassium	10000	9950		ug/L		99	80 - 120
Magnesium	10000	10200		ug/L		102	80 - 120
Sodium	10000	10400		ug/L		104	80 - 120

TestAmerica Canton

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-97175/1-A

Matrix: Water

Analysis Batch: 97359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 97175

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		08/13/13 10:20	08/13/13 13:59	1

Lab Sample ID: LCS 240-97175/2-A

Matrix: Water

Analysis Batch: 97359

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 97175

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Mercury	5.00	5.06		ug/L		101	81 - 123

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## GC/MS VOA

### Analysis Batch: 98068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total/NA	Water	8260B	5
240-27824-2	WG-631028-080813-002	Total/NA	Water	8260B	6
240-27824-3	WG-631028-080813-003	Total/NA	Water	8260B	7
240-27824-4	WG-631028-080813-004	Total/NA	Water	8260B	8
240-27824-5	WG-631028-080813-005	Total/NA	Water	8260B	9
240-27824-6	EB-631028-080813-006	Total/NA	Water	8260B	10
240-27824-7	WG-631028-080813-007	Total/NA	Water	8260B	11
240-27824-8	WG-631028-080813-008	Total/NA	Water	8260B	12
240-27824-9	TB-631028-080813	Total/NA	Water	8260B	13
LCS 240-98068/4	Lab Control Sample	Total/NA	Water	8260B	14
MB 240-98068/5	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 97238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total/NA	Water	3520C	12
240-27824-2	WG-631028-080813-002	Total/NA	Water	3520C	13
240-27824-3	WG-631028-080813-003	Total/NA	Water	3520C	14
240-27824-4	WG-631028-080813-004	Total/NA	Water	3520C	
240-27824-5	WG-631028-080813-005	Total/NA	Water	3520C	
240-27824-6	EB-631028-080813-006	Total/NA	Water	3520C	
240-27824-7	WG-631028-080813-007	Total/NA	Water	3520C	
240-27824-8	WG-631028-080813-008	Total/NA	Water	3520C	
LCS 240-97238/17-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-97238/16-A	Method Blank	Total/NA	Water	3520C	

### Analysis Batch: 97595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total/NA	Water	8270C	97238
240-27824-2	WG-631028-080813-002	Total/NA	Water	8270C	97238
240-27824-3	WG-631028-080813-003	Total/NA	Water	8270C	97238
240-27824-4	WG-631028-080813-004	Total/NA	Water	8270C	97238
240-27824-5	WG-631028-080813-005	Total/NA	Water	8270C	97238
240-27824-6	EB-631028-080813-006	Total/NA	Water	8270C	97238
240-27824-7	WG-631028-080813-007	Total/NA	Water	8270C	97238
240-27824-8	WG-631028-080813-008	Total/NA	Water	8270C	97238
MB 240-97238/16-A	Method Blank	Total/NA	Water	8270C	97238

### Analysis Batch: 97775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-97238/17-A	Lab Control Sample	Total/NA	Water	8270C	97238

## Metals

### Prep Batch: 97175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total/NA	Water	7470A	1
240-27824-2	WG-631028-080813-002	Total/NA	Water	7470A	2
240-27824-3	WG-631028-080813-003	Total/NA	Water	7470A	3

TestAmerica Canton

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

## Metals (Continued)

### Prep Batch: 97175 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-4	WG-631028-080813-004	Total/NA	Water	7470A	5
240-27824-5	WG-631028-080813-005	Total/NA	Water	7470A	6
240-27824-6	EB-631028-080813-006	Total/NA	Water	7470A	7
240-27824-7	WG-631028-080813-007	Total/NA	Water	7470A	8
240-27824-8	WG-631028-080813-008	Total/NA	Water	7470A	9
LCS 240-97175/2-A	Lab Control Sample	Total/NA	Water	7470A	10
MB 240-97175/1-A	Method Blank	Total/NA	Water	7470A	11

### Prep Batch: 97354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total Recoverable	Water	3005A	12
240-27824-2	WG-631028-080813-002	Total Recoverable	Water	3005A	13
240-27824-3	WG-631028-080813-003	Total Recoverable	Water	3005A	14
240-27824-4	WG-631028-080813-004	Total Recoverable	Water	3005A	1
240-27824-5	WG-631028-080813-005	Total Recoverable	Water	3005A	2
240-27824-6	EB-631028-080813-006	Total Recoverable	Water	3005A	3
240-27824-7	WG-631028-080813-007	Total Recoverable	Water	3005A	4
240-27824-8	WG-631028-080813-008	Total Recoverable	Water	3005A	5
LCS 240-97354/2-A	Lab Control Sample	Total Recoverable	Water	3005A	6
MB 240-97354/1-A	Method Blank	Total Recoverable	Water	3005A	7

### Analysis Batch: 97359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total/NA	Water	7470A	97175
240-27824-2	WG-631028-080813-002	Total/NA	Water	7470A	97175
240-27824-3	WG-631028-080813-003	Total/NA	Water	7470A	97175
240-27824-4	WG-631028-080813-004	Total/NA	Water	7470A	97175
240-27824-5	WG-631028-080813-005	Total/NA	Water	7470A	97175
240-27824-6	EB-631028-080813-006	Total/NA	Water	7470A	97175
240-27824-7	WG-631028-080813-007	Total/NA	Water	7470A	97175
240-27824-8	WG-631028-080813-008	Total/NA	Water	7470A	97175
LCS 240-97175/2-A	Lab Control Sample	Total/NA	Water	7470A	97175
MB 240-97175/1-A	Method Blank	Total/NA	Water	7470A	97175

### Analysis Batch: 97735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-27824-1	WG-631028-080813-001	Total Recoverable	Water	6020	97354
240-27824-2	WG-631028-080813-002	Total Recoverable	Water	6020	97354
240-27824-3	WG-631028-080813-003	Total Recoverable	Water	6020	97354
240-27824-4	WG-631028-080813-004	Total Recoverable	Water	6020	97354
240-27824-5	WG-631028-080813-005	Total Recoverable	Water	6020	97354
240-27824-6	EB-631028-080813-006	Total Recoverable	Water	6020	97354
240-27824-7	WG-631028-080813-007	Total Recoverable	Water	6020	97354
240-27824-8	WG-631028-080813-008	Total Recoverable	Water	6020	97354
LCS 240-97354/2-A	Lab Control Sample	Total Recoverable	Water	6020	97354
MB 240-97354/1-A	Method Blank	Total Recoverable	Water	6020	97354

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-001**

**Lab Sample ID: 240-27824-1**

Matrix: Water

Date Collected: 08/08/13 09:30

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 00:02	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 16:09	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:12	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 17:58	NJT	TAL CAN

**Client Sample ID: WG-631028-080813-002**

**Lab Sample ID: 240-27824-2**

Matrix: Water

Date Collected: 08/08/13 11:15

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 00:24	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 16:32	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:17	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:10	NJT	TAL CAN

**Client Sample ID: WG-631028-080813-003**

**Lab Sample ID: 240-27824-3**

Matrix: Water

Date Collected: 08/08/13 11:15

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 00:46	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 16:55	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:18	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:14	NJT	TAL CAN

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

Matrix: Water

Date Collected: 08/08/13 13:20

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 01:08	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 14:35	JMG	TAL CAN

TestAmerica Canton

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-004**

**Lab Sample ID: 240-27824-4**

Matrix: Water

Date Collected: 08/08/13 13:20  
Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:20	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:18	NJT	TAL CAN

**Client Sample ID: WG-631028-080813-005**

**Lab Sample ID: 240-27824-5**

Matrix: Water

Date Collected: 08/08/13 10:50  
Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 01:30	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 14:58	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:21	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:22	NJT	TAL CAN

**Client Sample ID: EB-631028-080813-006**

**Lab Sample ID: 240-27824-6**

Matrix: Water

Date Collected: 08/08/13 10:00  
Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 01:52	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 15:22	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:23	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:26	NJT	TAL CAN

**Client Sample ID: WG-631028-080813-007**

**Lab Sample ID: 240-27824-7**

Matrix: Water

Date Collected: 08/08/13 12:40  
Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 02:15	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 15:45	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:24	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:30	NJT	TAL CAN

TestAmerica Canton

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

**Client Sample ID: WG-631028-080813-008**

**Lab Sample ID: 240-27824-8**

Date Collected: 08/08/13 13:15

Matrix: Water

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 02:37	LEE	TAL CAN
Total/NA	Prep	3520C			97238	08/13/13 10:49	SDE	TAL CAN
Total/NA	Analysis	8270C		1	97595	08/15/13 17:19	JMG	TAL CAN
Total/NA	Prep	7470A			97175	08/13/13 10:20	LPM	TAL CAN
Total/NA	Analysis	7470A		1	97359	08/13/13 14:26	ADS	TAL CAN
Total Recoverable	Prep	3005A			97354	08/14/13 07:43	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	97735	08/15/13 18:34	NJT	TAL CAN

**Client Sample ID: TB-631028-080813**

**Lab Sample ID: 240-27824-9**

Date Collected: 08/08/13 00:00

Matrix: Water

Date Received: 08/10/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	98068	08/20/13 02:59	LEE	TAL CAN

### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 631028, NL Industries

TestAmerica Job ID: 240-27824-1

### Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-13 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-31-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-13

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton



**CONESTOGA-ROVERS  
& ASSOCIATES**

## **CHAIN OF CUSTODY RECORD**

Address: NF office

*Phone:* \_\_\_\_\_ *Fax:* \_\_\_\_\_

COC NO.: 40914

PAGE 1 OF 1

(See Reverse Side for Instructions)

**THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY**

#### Distribution:

WHITE – Fully Executed Copy (CRA)

**YELLOW – Receiving Laboratory Copy**

PINK – Shipper

#### GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

Client CRA

Site Name \_\_\_\_\_

Cooler unpacked by:

JKCooler Received on 8-10-13Opened on 8-10-13FedEx: 1<sup>st</sup> Grd Exp UPS FAS Stetson

Client Drop Off TestAmerica Courier

Other \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_

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

IR GUN# A (CF -1 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

IR GUN# 4 (CF 0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

IR GUN# 8 (CF -0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

 See Multiple  
Cooler Form

## 2. Were custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_

Yes NoYes No NAYes No

## 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 &amp; signed in the appropriate place?

Yes No

## 6. Did all bottles arrive in good condition (Unbroken)?

Yes No

## 7. Could all bottle labels be reconciled with the COC?

Yes No

## 8. Were correct bottle(s) used for the test(s) indicated?

Yes No

## 9. Sufficient quantity received to perform indicated analyses?

Yes No

## 10. Were sample(s) at the correct pH upon receipt?

Yes No

## 11. Were VOAs on the COC?

Yes No

## 12. Were air bubbles &gt;6 mm in any VOA vials?

Yes No

## 13. Was a trip blank present in the cooler(s)?

Yes No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other

Concerning \_\_\_\_\_

Concerning \_\_\_\_\_

## 14. CHAIN OF CUSTODY &amp; SAMPLE DISCREPANCIES

Samples processed by:

## 15. 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 &gt;6 mm in diameter. (Notify PM)

## 16. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.

Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

**TestAmerica Multiple Cooler Receipt Form/Narrative  
Canton Facility**

Login #:

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
WG-631028-080813-001	240-27824-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-002	240-27824-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-003	240-27824-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-004	240-27824-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-005	240-27824-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
EB-631028-080813-006	240-27824-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-007	240-27824-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
WG-631028-080813-008	240-27824-D-8	Plastic 500ml - with Nitric Acid	<2	_____	_____

APPENDIX E  
DATA USABILITY SUMMARY REPORT (DUSR)



**CONESTOGA-ROVERS  
& ASSOCIATES**

2055 Niagara Falls Blvd., Suite #3  
Niagara Falls, New York 14304  
Telephone: (716) 297-6150 Fax: (716) 297-2265  
[www.CRAworld.com](http://www.CRAworld.com)

## MEMORANDUM

TO: Kathy Galanti

REF. NO.: 631028

FROM: Paul McMahon/adh/1

DATE: September 18, 2013

E-Mail and Hard Copy if Requested

RE: **Data Usability Summary Report  
Groundwater Sampling  
NL Industries Site  
Depew, New York  
August 2013**

### INTRODUCTION

The following document details a Data Usability Summary Report (DUSR) of analytical results for groundwater samples collected in support of the Groundwater Monitoring Program at the Depew, New York Site in August 2013. Samples were submitted to TestAmerica, located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard Conestoga-Rovers & Associates (CRA) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes and laboratory control samples (LCS), and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and the documents entitled:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," United States Environmental Protection Agency (USEPA) 540/R-99-008, October 1999
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," USEPA 540/R-94/013, February 1994.

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

This DUSR has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation "DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B-Guidance for the Development of Data Usability Summary Reports," May 2010.

### SAMPLE HOLDING TIME AND PRESERVATION

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved and delivered on ice and stored by the laboratory at the required temperature (0-6°C).

### LABORATORY METHOD BLANK ANALYSES

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Some metals and bis(2-ethylhexyl)phthalate were detected in the method blanks. All associated sample results with concentrations similar to the blanks were qualified as non-detect (see Table 4).

### SURROGATE SPIKE RECOVERIES

In accordance with the method employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

### LABORATORY CONTROL SAMPLE (LCS) ANALYSES

LCSs are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. For this study, LCSs were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

#### Organic Analyses

The LCS contained all target compounds of interest. Most LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy. One high toluene LCS recovery was reported; the associated sample results were non-detect and were not impacted by the indicated high bias.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines." All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

FIELD QA/QC SAMPLES

The field QA/QC consisted of one trip blank sample, one equipment blank sample, and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Equipment Blank Sample Analysis

To assess field decontamination procedures, ambient conditions at the Site, and cleanliness of sample containers, one equipment blank was submitted for analysis, as identified in Table 1. Most results were non-detect for the analytes of interest. Chloroform, bis (2-ethylhexyl)phthalate, and several metals were detected in the blank. Several sample results associated with the blank were either non-detect or were previously qualified as non-detect. Further qualification of this sample data was not required on this basis. All remaining associated sample results with concentrations similar to the blanks were qualified as non-detect (see Table 5).

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The relative percent differences (RPDs) associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one times the PQL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

ANALYTE REPORTING

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the PQL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this Memorandum. Non-detect results were presented as non-detect at the PQL in Table 2.

All sample results and quantitation limits were reported in accordance with method requirements. Qualifications applied to the analytical results based on the data validation include "U" (not detected at the associated reporting limit).

**OVERALL USABILITY ASSESSMENT**

All deliverables required by the project were present and the data package was complete. Based on the preceding evaluation, the data were acceptable for use with the qualifications noted.

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Sample ID</i>	<i>Location I.D.</i>	<i>Collection Date</i>	<i>Collection Time</i>	<i>Parameter</i>			<i>Comment</i>
				TCL VOCs	TAL Metals	TCL SVOCs	
WG-631028-080813-001	MW-101	8/8/2013	9:30	X	X	X	
WG-631028-080813-002	MW-102	8/8/2013	11:15	X	X	X	
WG-631028-080813-003	MW-102	8/8/2013	11:15	X	X	X	Duplicate of WG-631028-080813-002
WG-631028-080813-004	MW-105	8/8/2013	13:20	X	X	X	
WG-631028-080813-005	MW-104	8/8/2013	10:50	X	X	X	
EB-631028-080813-006	-	8/8/2013	10:00	X	X	X	Equipment Blank
WG-631028-080813-007	MW-103	8/8/2013	12:40	X	X	X	
WG-631028-080813-008	MW-106F	8/8/2013	13:15	X	X	X	
TB-631028-080813	-	8/8/2013	-	X			Trip Blank

## Notes:

- Not applicable.
- TCL - Target Compound List.

TAL - Target Analyte List.

SVOCs - Semi-Volatile Organic Compounds.

VOCs - Volatile Organic Compounds.

TABLE 2

Page 1 of 8

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>	<i>MW-103</i>
<i>Sample Name:</i>	WG-631028-080813-001	WG-631028-080813-002	WG-631028-080813-003	WG-631028-080813-007
<i>Sample Date:</i>	8/8/2013	8/8/2013	8/8/2013	8/8/2013
<i>(Duplicate)</i>				
<i>Units</i>				
<b>Volatile Organic Compounds</b>				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U

TABLE 2

Page 2 of 8

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>	<i>MW-103</i>
<i>Sample Name:</i>	WG-631028-080813-001	WG-631028-080813-002	WG-631028-080813-003	WG-631028-080813-007
<i>Sample Date:</i>	8/8/2013	8/8/2013	8/8/2013	8/8/2013
<i>(Duplicate)</i>				
	<i>Units</i>			
<b>Volatile Organic Compounds (Continued)</b>				
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	µg/L	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U
<b>Semi-volatile Organic Compounds</b>				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	0.95 U	0.95 U	0.95 U
2,4,5-Trichlorophenol	µg/L	4.8 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	4.8 U	4.8 U	4.8 U
2,4-Dichlorophenol	µg/L	1.9 U	1.9 U	1.9 U
2,4-Dimethylphenol	µg/L	1.9 U	1.9 U	1.9 U
2,4-Dinitrophenol	µg/L	4.8 U	4.8 U	4.8 U
2,4-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene	µg/L	0.95 U	0.95 U	0.95 U
2-Chlorophenol	µg/L	0.95 U	0.95 U	0.95 U
2-Methylnaphthalene	µg/L	0.19 U	0.19 U	0.19 U
2-Methylphenol	µg/L	0.95 U	0.95 U	0.95 U
2-Nitroaniline	µg/L	1.9 U	1.9 U	1.9 U
2-Nitrophenol	µg/L	1.9 U	1.9 U	1.9 U
3&4-Methylphenol	µg/L	1.9 U	1.9 U	1.9 U
3,3'-Dichlorobenzidine	µg/L	4.8 U	4.8 U	4.8 U
3-Nitroaniline	µg/L	1.9 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	µg/L	4.8 U	4.8 U	4.8 U
4-Bromophenyl phenyl ether	µg/L	1.9 U	1.9 U	1.9 U
4-Chloro-3-methylphenol	µg/L	1.9 U	1.9 U	1.9 U
4-Chloroaniline	µg/L	1.9 U	1.9 U	1.9 U
4-Chlorophenyl phenyl ether	µg/L	1.9 U	1.9 U	1.9 U
4-Nitroaniline	µg/L	1.9 U	1.9 U	1.9 U
4-Nitrophenol	µg/L	4.8 U	4.8 U	4.8 U
Acenaphthene	µg/L	0.19 U	0.19 U	0.19 U
Acenaphthylene	µg/L	0.19 U	0.19 U	0.19 U

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>	<i>MW-103</i>
<i>Sample Name:</i>	<i>WG-631028-080813-001</i>	<i>WG-631028-080813-002</i>	<i>WG-631028-080813-003</i>	<i>WG-631028-080813-007</i>
<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>(Duplicate)</i>				
<i>Units</i>				
<i>Semi-volatile Organic Compounds (Continued)</i>				
Acetophenone	µg/L	0.95 U	0.95 U	0.95 U
Anthracene	µg/L	0.19 U	0.19 U	0.19 U
Atrazine	µg/L	0.95 U	0.95 U	0.95 U
Benzaldehyde	µg/L	0.95 U	0.95 U	0.95 U
Benzo(a)anthracene	µg/L	0.19 U	0.19 U	0.19 U
Benzo(a)pyrene	µg/L	0.19 U	0.19 U	0.19 U
Benzo(b)fluoranthene	µg/L	0.19 U	0.19 U	0.19 U
Benzo(g,h,i)perylene	µg/L	0.19 U	0.19 U	0.19 U
Benzo(k)fluoranthene	µg/L	0.19 U	0.19 U	0.19 U
Biphenyl (1,1-Biphenyl)	µg/L	0.95 U	0.95 U	0.95 U
bis(2-Chloroethoxy)methane	µg/L	0.95 U	0.95 U	0.95 U
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.95 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	1.9 U	1.9 U	1.9 U
Butyl benzylphthalate (BBP)	µg/L	1.9 U	1.9 U	1.9 U
Caprolactam	µg/L	4.8 U	4.8 U	4.8 U
Carbazole	µg/L	0.95 U	0.95 U	0.95 U
Chrysene	µg/L	0.19 U	0.19 U	0.19 U
Dibenz(a,h)anthracene	µg/L	0.19 U	0.19 U	0.19 U
Dibenzofuran	µg/L	0.95 U	0.95 U	0.95 U
Diethyl phthalate	µg/L	1.9 U	1.9 U	1.9 U
Dimethyl phthalate	µg/L	1.9 U	1.9 U	1.9 U
Di-n-butylphthalate (DBP)	µg/L	1.9 U	1.9 U	1.9 U
Di-n-octyl phthalate (DnOP)	µg/L	1.9 U	1.9 U	1.9 U
Fluoranthene	µg/L	0.19 U	0.19 U	0.19 U
Fluorene	µg/L	0.19 U	0.19 U	0.19 U
Hexachlorobenzene	µg/L	0.19 U	0.19 U	0.19 U
Hexachlorobutadiene	µg/L	0.95 U	0.95 U	0.95 U
Hexachlorocyclopentadiene	µg/L	9.5 U	9.5 U	9.5 U
Hexachloroethane	µg/L	0.95 U	0.95 U	0.95 U
Indeno(1,2,3-cd)pyrene	µg/L	0.19 U	0.19 U	0.19 U
Isophorone	µg/L	0.95 U	0.95 U	0.95 U
Naphthalene	µg/L	0.19 U	0.19 U	0.19 U
Nitrobenzene	µg/L	0.95 U	0.95 U	0.95 U
N-Nitrosodi-n-propylamine	µg/L	0.95 U	0.95 U	0.95 U
N-Nitrosodiphenylamine	µg/L	0.95 U	0.95 U	0.95 U
Pentachlorophenol	µg/L	4.8 U	4.8 U	4.8 U
Phenanthrene	µg/L	0.19 U	0.19 U	0.19 U
Phenol	µg/L	0.95 U	0.95 U	0.95 U
Pyrene	µg/L	0.19 U	0.19 U	0.19 U

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-101</i>	<i>MW-102</i>	<i>MW-102</i>	<i>MW-103</i>
<i>Sample Name:</i>	<i>WG-631028-080813-001</i>	<i>WG-631028-080813-002</i>	<i>WG-631028-080813-003</i>	<i>WG-631028-080813-007</i>
<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>(Duplicate)</i>				
<i>Units</i>				
<b>Metals</b>				
Aluminum	µg/L	98	260	330
Antimony	µg/L	9.9	0.72 J	0.70 J
Arsenic	µg/L	1.5 J	2.2 J	2.3 J
Barium	µg/L	78	83	82
Beryllium	µg/L	0.20 J	0.082 J	0.068 J
Cadmium	µg/L	0.22 J	0.029 J	0.030 J
Calcium	µg/L	40000	92000	90000
Chromium	µg/L	2.0 U	2.0 U	2.0 U
Cobalt	µg/L	1.0 U	1.0 U	1.0 U
Copper	µg/L	42	7.6 U	8.0
Iron	µg/L	170 U	1200	1300
Lead	µg/L	26	3.3	3.5
Magnesium	µg/L	17000	61000	58000
Manganese	µg/L	46	81	78
Mercury	µg/L	0.20 U	0.20 U	0.20 U
Nickel	µg/L	2.0 U	2.0 U	2.0 U
Potassium	µg/L	1600	2600	2700
Selenium	µg/L	0.71 J	0.45 J	0.56 J
Silver	µg/L	0.070 J	0.020 J	1.0 U
Sodium	µg/L	20000	55000	54000
Thallium	µg/L	2.0 U	2.0 U	2.0 U
Vanadium	µg/L	5.0 U	5.0 U	5.0 U
Zinc	µg/L	24 U	20 U	23 U
				20 U

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-104</i>	<i>MW-105</i>	<i>MW-106F</i>
<i>Sample Name:</i>	<i>WG-631028-080813-005</i>	<i>WG-631028-080813-004</i>	<i>WG-631028-080813-008</i>
<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>Units</i>			
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U
2-Hexanone	µg/L	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U
Acetone	µg/L	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-104</i>	<i>MW-105</i>	<i>MW-106F</i>
Sample Name:	WG-631028-080813-005	WG-631028-080813-004	WG-631028-080813-008
Sample Date:	8/8/2013	8/8/2013	8/8/2013
<i>Units</i>			
<i>Volatile Organic Compounds (Continued)</i>			
Methylene chloride	µg/L	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U
<i>Semi-volatile Organic Compounds</i>			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	0.95 U	0.95 U
2,4,5-Trichlorophenol	µg/L	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	4.8 U	4.8 U
2,4-Dichlorophenol	µg/L	0.42 J	1.9 U
2,4-Dimethylphenol	µg/L	1.9 U	1.9 U
2,4-Dinitrophenol	µg/L	4.8 U	4.8 U
2,4-Dinitrotoluene	µg/L	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	4.8 U	4.8 U
2-Chloronaphthalene	µg/L	0.95 U	0.95 U
2-Chlorophenol	µg/L	0.95 U	0.95 U
2-Methylnaphthalene	µg/L	0.19 U	0.19 U
2-Methylphenol	µg/L	0.95 U	0.95 U
2-Nitroaniline	µg/L	1.9 U	1.9 U
2-Nitrophenol	µg/L	1.9 U	1.9 U
3&4-Methylphenol	µg/L	1.9 U	1.9 U
3,3'-Dichlorobenzidine	µg/L	4.8 U	4.8 U
3-Nitroaniline	µg/L	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	µg/L	4.8 U	4.8 U
4-Bromophenyl phenyl ether	µg/L	1.9 U	1.9 U
4-Chloro-3-methylphenol	µg/L	1.9 U	1.9 U
4-Chloroaniline	µg/L	1.9 U	1.9 U
4-Chlorophenyl phenyl ether	µg/L	1.9 U	1.9 U
4-Nitroaniline	µg/L	1.9 U	1.9 U
4-Nitrophenol	µg/L	4.8 U	4.8 U
Acenaphthene	µg/L	0.19 U	0.19 U
Acenaphthylene	µg/L	0.19 U	0.19 U

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-104</i>	<i>MW-105</i>	<i>MW-106F</i>
<i>Sample Name:</i>	<i>WG-631028-080813-005</i>	<i>WG-631028-080813-004</i>	<i>WG-631028-080813-008</i>
<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>Units</i>			
<i>Semi-volatile Organic Compounds (Continued)</i>			
Acetophenone	µg/L	0.95 U	0.95 U
Anthracene	µg/L	0.19 U	0.19 U
Atrazine	µg/L	0.95 U	0.95 U
Benzaldehyde	µg/L	0.95 U	0.95 U
Benzo(a)anthracene	µg/L	0.19 U	0.19 U
Benzo(a)pyrene	µg/L	0.19 U	0.19 U
Benzo(b)fluoranthene	µg/L	0.19 U	0.19 U
Benzo(g,h,i)perylene	µg/L	0.19 U	0.19 U
Benzo(k)fluoranthene	µg/L	0.19 U	0.19 U
Biphenyl (1,1-Biphenyl)	µg/L	0.95 U	0.95 U
bis(2-Chloroethoxy)methane	µg/L	0.95 U	0.95 U
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	1.9 U	1.9 U
Butyl benzylphthalate (BBP)	µg/L	1.9 U	1.9 U
Caprolactam	µg/L	4.8 U	4.8 U
Carbazole	µg/L	0.95 U	0.95 U
Chrysene	µg/L	0.19 U	0.19 U
Dibenz(a,h)anthracene	µg/L	0.19 U	0.19 U
Dibenzofuran	µg/L	0.95 U	0.95 U
Diethyl phthalate	µg/L	1.9 U	1.9 U
Dimethyl phthalate	µg/L	1.9 U	1.9 U
Di-n-butylphthalate (DBP)	µg/L	1.9 U	1.9 U
Di-n-octyl phthalate (DnOP)	µg/L	1.9 U	1.9 U
Fluoranthene	µg/L	0.19 U	0.19 U
Fluorene	µg/L	0.19 U	0.19 U
Hexachlorobenzene	µg/L	0.19 U	0.19 U
Hexachlorobutadiene	µg/L	0.95 U	0.95 U
Hexachlorocyclopentadiene	µg/L	9.5 U	9.5 U
Hexachloroethane	µg/L	0.95 U	0.95 U
Indeno(1,2,3-cd)pyrene	µg/L	0.19 U	0.19 U
Isophorone	µg/L	0.95 U	0.95 U
Naphthalene	µg/L	0.19 U	0.19 U
Nitrobenzene	µg/L	0.95 U	0.95 U
N-Nitrosodi-n-propylamine	µg/L	0.95 U	0.95 U
N-Nitrosodiphenylamine	µg/L	0.95 U	0.95 U
Pentachlorophenol	µg/L	4.8 U	4.8 U
Phenanthrene	µg/L	0.19 U	0.19 U
Phenol	µg/L	0.95 U	0.95 U
Pyrene	µg/L	0.19 U	0.14 J

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER SAMPLING  
NL INDUSTRIES SITE  
DEPEW, NEW YORK  
AUGUST 2013**

<i>Location:</i>	<i>MW-104</i>	<i>MW-105</i>	<i>MW-106F</i>
<i>Sample Name:</i>	<i>WG-631028-080813-005</i>	<i>WG-631028-080813-004</i>	<i>WG-631028-080813-008</i>
<i>Sample Date:</i>	<i>8/8/2013</i>	<i>8/8/2013</i>	<i>8/8/2013</i>
<i>Units</i>			
<b>Metals</b>			
Aluminum	µg/L	50 U	2000
Antimony	µg/L	2.0 U	4.3
Arsenic	µg/L	10	0.81 J
Barium	µg/L	40	180
Beryllium	µg/L	1.0 U	1.0 U
Cadmium	µg/L	1.0 U	0.22 J
Calcium	µg/L	150000	75000
Chromium	µg/L	2.0 U	3.2 U
Cobalt	µg/L	1.0 U	1.5
Copper	µg/L	2.0 U	83
Iron	µg/L	320	3100
Lead	µg/L	1.0 U	89
Magnesium	µg/L	100000	60000
Manganese	µg/L	15	21
Mercury	µg/L	0.20 U	0.20 U
Nickel	µg/L	2.0 U	4.4 U
Potassium	µg/L	1900	1800
Selenium	µg/L	5.0 U	0.35 J
Silver	µg/L	0.012 J	0.078 J
Sodium	µg/L	65000	93000
Thallium	µg/L	2.0 U	2.0 U
Vanadium	µg/L	5.0 U	5.1
Zinc	µg/L	20 U	150 U

## Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

TABLE 3

**ANALYTICAL METHOD AND HOLDING TIME SUMMARY**  
**GROUNDWATER SAMPLING**  
**NL INDUSTRIES SITE**  
**DEPEW, NEW YORK**  
**AUGUST 2013**

<i>Analyses</i>	<i>Methodology</i> <sup>(1)</sup>	<i>Holding Time to Extraction (Days)</i>	<i>Holding Time to Analyses (Days)</i>
TCL VOCs	SW-846 8260B	-	14
TCL SVOCs	SW-846 8270C	7	40
TAL Metals (except Mercury)	SW-846 6020	-	180
Mercury	SW-846 7470A	-	28

Notes:

<sup>(1)</sup> - Referenced from "Test Methods for Evaluating Solid Waste," USEPA OSW, 3rd Edition, 1986 and subsequent revisions.

SVOCs - Semi-Volatile Organic Compounds.

VOCs - Volatile Organic Compounds.

TCL - Target Compound List.

TAL - Target Analyte List.

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS**  
**GROUNDWATER SAMPLING**  
**NL INDUSTRIES SITE**  
**DEPEW, NEW YORK**  
**AUGUST 2013**

<b>Parameter</b>	<b>Analysis</b> <b>Date</b>	<b>Analyte</b>	<b>Blank Result</b>	<b>Sample ID</b>	<b>Sample Result</b>	<b>Qualified Sample Result</b>		<b>Units</b>
						<b>Sample Result</b>	<b>Units</b>	
Metals	08/14/13	Copper	1.5 J	WG-631028-080813-002	7.6	7.6 U	µg/L	
				WG-631028-080813-004	0.70 J	2.0 U	µg/L	
				WG-631028-080813-005	0.89 J	2.0 U	µg/L	
				WG-631028-080813-007	6.3	6.3 U	µg/L	
Metals	08/14/13	Zinc	40	WG-631028-080813-001	24	24 U	µg/L	
				WG-631028-080813-002	20	20 U	µg/L	
				WG-631028-080813-003	23	23 U	µg/L	
				WG-631028-080813-004	3.9 J	20 U	µg/L	
				WG-631028-080813-007	12 J	20 U	µg/L	
				WG-631028-080813-008	150	150 U	µg/L	
Metals	08/14/13	Iron	42 J	WG-631028-080813-001	170	170 U	µg/L	
Metals	08/14/13	Nickel	0.22 J	WG-631028-080813-001	0.78 J	2.0 U	µg/L	
				WG-631028-080813-004	0.48 J	2.0 U	µg/L	
				WG-631028-080813-005	0.34 J	2.0 U	µg/L	
Metals	08/14/13	Lead	0.25 J	WG-631028-080813-004	0.26 J	1.0 U	µg/L	
				WG-631028-080813-005	0.26 J	1.0 U	µg/L	
Metals	08/14/13	Vanadium	0.19 J	WG-631028-080813-005	0.89 J	5.0 U	µg/L	
				WG-631028-080813-007	0.72 J	5.0 U	µg/L	
SVOCs	08/13/13	bis(2-Ethylhexyl)phthalate (DEHP)	0.44 J	WG-631028-080813-001	0.25 J	1.9 U	µg/L	
				WG-631028-080813-004	0.76 J	1.9 U	µg/L	
				WG-631028-080813-007	0.28 J	1.9 U	µg/L	
				WG-631028-080813-008	0.25 J	1.9 U	µg/L	

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

SVOCs Semi-Volatile Organic Compounds.

TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE EQUIPMENT BLANK**  
**GROUNDWATER SAMPLING**  
**NL INDUSTRIES SITE**  
**DEPEW, NEW YORK**  
**AUGUST 2013**

<i>Parameter</i>	<i>Blank Sample ID</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Associated Sample ID</i>	<i>Qualified</i>			<i>Units</i>
					<i>Sample Result</i>	<i>Sample Result</i>	<i>Result</i>	
Metals	EB-631028-080813-006	Cobalt	0.19 J	WG-631028-080813-001	0.38 J	1.0 U	μg/L	
				WG-631028-080813-002	0.79 J	1.0 U	μg/L	
				WG-631028-080813-003	0.78 J	1.0 U	μg/L	
				WG-631028-080813-004	0.20 J	1.0 U	μg/L	
				WG-631028-080813-005	0.10 J	1.0 U	μg/L	
				WG-631028-080813-007	0.64 J	1.0 U	μg/L	
Metals	EB-631028-080813-006	Chromium	4.9	WG-631028-080813-001	0.92 J	2.0 U	μg/L	
				WG-631028-080813-002	0.59 J	2.0 U	μg/L	
				WG-631028-080813-003	0.65 J	2.0 U	μg/L	
				WG-631028-080813-005	0.30 J	2.0 U	μg/L	
				WG-631028-080813-008	3.2	3.2 U	μg/L	
Metals	EB-631028-080813-006	Nickel	13	WG-631028-080813-002	1.3 J	2.0 U	μg/L	
				WG-631028-080813-003	1.4 J	2.0 U	μg/L	
				WG-631028-080813-007	1.2 J	2.0 U	μg/L	
				WG-631028-080813-008	4.4	4.4 U	μg/L	
Metals	EB-631028-080813-006	Vanadium	1.0 J	WG-631028-080813-001	1.4 J	5.0 U	μg/L	
				WG-631028-080813-002	1.3 J	5.0 U	μg/L	
				WG-631028-080813-003	1.6 J	5.0 U	μg/L	
				WG-631028-080813-004	0.77 J	5.0 U	μg/L	

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.