CONESTOGA-ROVERS
& ASSOCIATES

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April 20, 2006

Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

Dear Mr. Gore and Ms. Kramer:

Re: First Quarter 2006 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this first quarter 2006 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site (Site). Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

First quarter 2006 samples were collected on January 3, 2006, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to Severn Trent Laboratories (STL) in North Canton, Ohio, for Site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	10	4.8	41,000
cis-1,2-dichloroethene	0.59 J	0.39 J	NA
chloroform	< 1.0	0.19 J	29,000

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

The pump operated continuously during the first quarter of 2006, except for one hour on March 20, when it was shut down while some electrical work was completed that was unrelated to EW1 operation. Between January 3, and March 30, 2006, the pump operated at an average flow rate of 835 gpm. A total of 103,351,000 gallons of water were treated by EW1 in the first quarter of 2006 (January 3 to March 30).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

JT/jla/44
Enc.

c.c. Terry Kopplin; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

ATTACHMENT B

DATA VALIDATION MEMO

ATTACHMENT A

LABORATORY REPORT

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

REVISED

Ruth Mickle
Conestoga-Rovers & Assoc., Inc.
PROJECT NO. 3978-10
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
HT37R	A6A040176-001	W060103MT-450	Influent
HT37T	A6A040176-002	W060103MT-451	Effluent
HT37V	A6A040176-003	TRIP BLANK	

SEVERN TRENT LABORATORIES, INC.

Amy L. McCormick
Project Manager

January 26, 2006

CASE NARRATIVE

A6A040176

The following report contains the analytical results for two water samples and one quality control sample submitted to STL North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received January 04, 2006, according to documented sample acceptance procedures.

Sample Trip Blank was received at the laboratory, but not listed on the chain-of-custody. It was analyzed per the sample label.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL'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.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.9°C.

See STL's Cooler Receipt Form for additional information.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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EXECUTIVE SUMMARY - Detection Highlights

A6A040176

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W060103MT-450 01/03/06 10:00 001				
Methylene chloride	0.23 J,B	1.0	ug/L	SW846 8260B
Acetone	1.7 J	10	ug/L	SW846 8260B
Trichloroethene	10	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.59 J	1.0	ug/L	SW846 8260B
W060103MT-451 01/03/06 10:00 002				
Acetone	1.4 J	10	ug/L	SW846 8260B
Chloroform	0.19 J	1.0	ug/L	SW846 8260B
Trichloroethene	4.8	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.39 J	1.0	ug/L	SW846 8260B
TRIP BLANK 01/03/06 003				
Methylene chloride	0.93 J,B	1.0	ug/L	SW846 8260B
Acetone	3.1 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A6A040176

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A6A040176

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HT37R	001	W060103MT-450	01/03/06	10:00
HT37T	002	W060103MT-451	01/03/06	10:00
HT37V	003	TRIP BLANK	01/03/06	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W060103MT-450 Influent

GC/MS Volatiles

Lot-Sample #...: A6A040176-001	**Work Order #...:** HT37R1AA	**Matrix.....:** WG	
Date Sampled...: 01/03/06 10:00	**Date Received..:** 01/04/06		
Prep Date.....: 01/06/06	**Analysis Date..:** 01/06/06		
Prep Batch #...: 6009027			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	**0.23 J,B**	**1.0**	**ug/L**
Acetone	**1.7 J**	**10**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	**10**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.59 J**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W060103MT-451 Effluent

GC/MS Volatiles

Lot-Sample #...: A6A040176-002	**Work Order #...:** HT37T1AA	**Matrix.....:** WG	
Date Sampled...: 01/03/06 10:00	**Date Received..:** 01/04/06		
Prep Date.....: 01/06/06	**Analysis Date..:** 01/06/06		
Prep Batch #...: 6009027			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	**1.4 J**	**10**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	**0.19 J**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	**4.8**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.39 J**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A6A040176-003 **Work Order #...:** HT37V1AA **Matrix.....:** WQ
Date Sampled...: 01/03/06 **Date Received..:** 01/04/06
Prep Date.....: 01/06/06 **Analysis Date..:** 01/06/06
Prep Batch #...: 6009027
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	**0.93 J,B**	**1.0**	**ug/L**
Acetone	**3.1 J**	**10**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A6A040176 **Work Order #...:** HT9WM1AA **Matrix.....:** WATER
MB Lot-Sample #: A6A090000-027

Prep Date.....: 01/06/06
Analysis Date..: 01/06/06 **Prep Batch #...:** 6009027
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.55 J**	**1.0**	**ug/L**	**SW846 8260B**
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A6A040176 **Work Order #...:** HT9WM1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A6A090000-027 HT9WM1AD-LCSD
Prep Date.....: 01/06/06 **Analysis Date..:** 01/06/06
Prep Batch #...: 6009027
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**100**	**(63 - 130)**			**SW846 8260B**
	111	**(63 - 130)**	**11**	**(0-20)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 122)**			**SW846 8260B**
	101	**(75 - 122)**	**4.8**	**(0-20)**	**SW846 8260B**
Benzene	**98**	**(80 - 116)**			**SW846 8260B**
	101	**(80 - 116)**	**3.1**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(74 - 119)**			**SW846 8260B**
	100	**(74 - 119)**	**1.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	101	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	107	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A6A040176 **Work Order #...:** HT9WM1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A6A090000-027 HT9WM1AD-LCSD
Prep Date.....: 01/06/06 **Analysis Date..:** 01/06/06
Prep Batch #...: 6009027
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**11**	**ug/L**	**111**	**11**	**SW846 8260B**
Trichloroethene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**4.8**	**SW846 8260B**
Benzene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**3.1**	**SW846 8260B**
Toluene	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**1.6**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	107	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A6A040176 **Work Order #...:** HT3M81AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A6A040101-001 HT3M81AD-MSD
Date Sampled...: 01/03/06 12:50 **Date Received..:** 01/03/06
Prep Date.....: 01/06/06 **Analysis Date..:** 01/06/06
Prep Batch #...: 6009027
Dilution Factor: 1.67

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	102	**(62 - 130)**	**0.04**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	99	**(62 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	101	**(78 - 118)**	**1.4**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(70 - 119)**			**SW846 8260B**
	98	**(70 - 119)**	**1.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.99**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	102	(61 - 128)
Toluene-d8	97	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)
	90	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A6A040176 **Work Order #...:** HT3M81AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A6A040101-001 HT3M81AD-MSD
Date Sampled...: 01/03/06 12:50 **Date Received..:** 01/03/06
Prep Date.....: 01/06/06 **Analysis Date..:** 01/06/06
Prep Batch #...: 6009027
Dilution Factor: 1.67

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**17**	**17**	**ug/L**	**102**		**SW846 8260B**
	ND	**17**	**17**	**ug/L**	**102**	**0.04**	**SW846 8260B**
Trichloroethene	**1.8**	**17**	**18**	**ug/L**	**97**		**SW846 8260B**
	1.8	**17**	**18**	**ug/L**	**99**	**2.0**	**SW846 8260B**
Benzene	**ND**	**17**	**17**	**ug/L**	**100**		**SW846 8260B**
	ND	**17**	**17**	**ug/L**	**101**	**1.4**	**SW846 8260B**
Toluene	**ND**	**17**	**17**	**ug/L**	**100**		**SW846 8260B**
	ND	**17**	**16**	**ug/L**	**98**	**1.2**	**SW846 8260B**
Chlorobenzene	**ND**	**17**	**17**	**ug/L**	**99**		**SW846 8260B**
	ND	**17**	**16**	**ug/L**	**98**	**0.99**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	102	(61 - 128)
Toluene-d8	97	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)
	90	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

18

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MARATHON ELEC. MFG. CORP	TERRY KOPPLIN	1/3/06	245613
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
100 E. RANDOLPH ST.	715-675-8274		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
WAUSAU / WI / 54401			
Project Name and Location (State)	**Carrier/Waybill Number**		
REF 3978			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH		Analysis: VOA's	Special Instructions/ Conditions of Receipt
W060103MT-450	01/03/06	10:00 AM								X			/	X	3-40ml-VIALS SPIGOT SAMPLES
W060103MT-451	01/03/06	10:00 AM								X				X	3-40ml-VIALS GRAB SAMPLES SPILLWAY

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

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

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	01/03/06	10:00AM	1. Received By Lisa Hinz	1-4-06	10:00
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

STL Cooler Receipt Form/Narrative **Lot Number:** 464040176
North Canton Facility

Client: Marathon Elec. MFG. Project: Ref 3978 Quote#: 304176
Cooler Received on: 1-4-06 CORP Opened on: 1-4-06 by: Lisa Lewis (Signature)
Fedx ☐ Client Drop Off ☐ UPS ☒ DHL ☐ FAS ☐ STL Courier ☐
Stetson ☐ US Cargo ☐ Other: _____
STL Cooler No# NO # _____ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler? Yes ☐ No ☒ Intact? Yes ☐ No ☐ NA ☒
   If YES, Quantity _____
   Were the custody seals signed and dated? Yes ☐ No ☐ NA ☒
2. Shipper's packing slip attached to this form? Yes ☒ No ☐ NA ☐
3. Did custody papers accompany the samples? Yes ☒ No ☐ Relinquished by client? Yes ☑ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other : _____
6. Cooler temperature upon receipt 1.9 °C (see back of form for multiple coolers/temp)

METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☒ ICE/H_2O Slurry ☐
COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? ~~Yes~~ ☒ No ☒
9. Were samples at the correct pH? (record below/on back) Yes ☐ No ☐ NA ☑
10. Were correct bottles used for the tests indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a Trip Blank present in the cooler? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☒ NA ☐

Contacted PM ALM Date: 1/04/06 by: ALM via Voice Mail ☒ Verbal ☐ Other ☐
Concerning: T.B.

√	

1. CHAIN OF CUSTODY

The following discrepancies occurred:
Received 1X40mL T.B. not on C.O.C. Will log.

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot # 100405-HNO3; Sulfuric Acid Lot # 100405-H2SO4; Sodium Hydroxide Lot # -100405 -NaOH; Hydrochloric Acid Lot # 100504-HCl; Sodium Hydroxide and Zinc Acetate Lot # 071604-CH3COO2ZN/NaOH*
Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Client ID	pH	Date	Initials

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp	Method	Coolant

Discrepancies Cont.

SEVERN TRENT STL

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 3978-10

FROM: Ruth L. Mickle

DATE: March 14, 2006

C.C.: Analytical Data File

RE: **Data Quality Assessment**
January 3, 2006, Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 245613)

The following details a data quality assessment for groundwater samples collected January 3, 2006, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W060103MT-450 and W060103MT-451 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank yielded a methylene

1 VOC method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

chloride detection (0.55 µg/L). The associated methylene chloride detection for sample W060103MT-450 should be qualified as nondetect (1.0U).

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded acetone (3.1 µg/L), methylene chloride (0.93 µg/L), and 2-butanone (0.49 µg/L) detections. Since there were no associated 2-butanone detections in the project samples, no qualification was required based on trip blank results. The associated methylene chloride detection was previously qualified as nondetect (1U) based on method blank results. The associated acetone detections for samples W060103MT-450 and W060103MT-451 should be qualified as nondetect (10U).

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted.

RLM/jla/68

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

April 24, 2008 Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

Dear Mr. Gore and Ms. Kramer:

Re: Second Quarter 2006 through Fourth Quarter 2007 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site (Site). Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

This report provides a summary of the monitoring and discharge data for the seven quarters, from the second quarter of 2006 through the fourth quarter of 2007.

Water samples were collected each quarter from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to Test America Laboratories in North Canton, Ohio, for Site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

A summary of the detected parameters is presented in Table 1. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed. As shown on the table, the VOCs detected in the effluent are well below the discharge limits. Copies of the data validation memos are attached as Attachment A.

There were two major maintenance items that occurred during the time period of this report that affected the operation of the extraction system. First, the flow meter failed and had to be replaced. This resulted in an estimate of the total volume of water pumped between May 2, 2006 and August 28, 2006. The estimate was based on the last measured flow rate on May 2, 2006 (meter was found to be defective on June 8, 2006, when a flow meter reading was attempted), and the measured flow rate when a new meter was installed on August 28, 2006.

The second major maintenance item was cleaning the well screen to increase pumping capacity. A variety of cleaning methods were used including physical, chemical, and biological. Other maintenance was also completed on the pump while the extraction well was shut off. The pump was shut down for 27 days and 9 hours beginning January 25, 2007 to complete this work.

There were several other minor, short-term shut downs that occurred from March 30, 2006, through January 3, 2008, many of them due to electrical failures at the facility. Those shut downs are summarized below:

Second Quarter 2006

- March 31, 2006 - 7.5 hours - Shut down while electrical work completed at the facility.
- June 9, 2006 - 5 minutes - Shut down to remove defective flow meter

Third Quarter 2006

- August 1, 2006 -4.3 hours - Shut down while electrical maintenance completed in shop.
- August 25, 2006 - 4.5 hours - Shut down while electrical maintenance completed in shop.
- August 28, 2006 - 3 hours - Shut down to install new flow meter, clean strainer, and change oil in pump motor.
- August 29, 2006 - 3 hours - Power outage caused by lightning.

Fourth Quarter 2006

- October 10, 2006 - 1 hour - Shut down during flow meter testing.
- November 17, 2006 - 5 minutes - Shut down for electrical testing in shop.
- December 23, 2006 - 9 hours - Power outage caused by snow storm.

First Quarter 2007

- January 17, 2007 -6.25 hours - Power outage caused by underground utility line damage.
- January 25, 2007 - 27 days 9.5 hours - Shut down for well cleaning and maintenance as discussed above (restarted February 21, 2007).
- March 7, 2007 -4 hours - Shut down to replace flow meter and clean strainer.

Second Quarter 2007

- July 3, 2007 - 4 hours - Power outage at facility.
- July 10, 2007 - 2.5 hours - Power outage in Engineering Lab.

Third Quarter 2007

- August 4, 2007 - 7.3 hours - Shut down while electrical maintenance completed in shop.

Fourth Quarter 2007

- October 20, 2007 - 1.3 hours - Power outage caused by tree falling on power line.
- November 27, 2007 - 1 hour - Power outage.

A total of 674,146,000 gallons of water were treated and discharged by EW1 from the second quarter of 2006 through the fourth quarter of 2007 (March 30, 2006 through January 3, 2008). The individual quarterly flow rates and gallons pumped are summarized below.

Quarter	*Dates*	*Total Gallons Pumped*	*Flow Rate (gpm)*
Second Quarter 2006	March 30 - July, 1, 2006	106,180,000	793
Third Quarter 2006	July 1 - October 2, 2006	93,017,000	694
Fourth Quarter 2006	October 2 - January 2, 2007	109,188,000	823
First Quarter 2007	January 2 - April 2, 2007	67,881,000	526
Second Quarter 2007	April 2 - July 2, 2007	106,121,000	809
Third Quarter 2007	July 2 - October 2, 2007	102,011,000	771
Fourth Quarter 2007	October 2 - January 3, 2008	89,748,000	670

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

MR/jla/47
Enc.

c.c. Terry Kopplin; Marathon Electric
Dave Erickson; City of Wausau

TABLE 1

EW1 DETECTED PARAMETERS (ug/L)
SECOND QUARTER 2006 - FOURTH QUARTER 2007
MARATHON ELECTRIC
WAUSAU WATER SUPPLY NPL SITE

	Trichloroethene	*cis-1,2-Dichloroethene*	*Chloroform*
Discharge Limits	*41,000*	*N/A*	*29,000*
Second Quarter 2006 (3/30/06)			
INFLUENT	11	0.57 J	< 1
EFFLUENT	5.1	0.34 J	0.37 J
Third Quarter 2006 (7/20/06)			
INFLUENT	11	0.56 J	< 1
EFFLUENT	4.6	0.29 J	< 1
Fourth Quarter 2006 (10/11/06)			
INFLUENT	9.3	0.56 J	< 1
EFFLUENT	4.8	0.32 J	< 1
First Quarter 2007 (1/22/07)			
INFLUENT	9.6	0.54 J	< 1
EFFLUENT	4.9	0.29 J	0.78 J
Second Quarter 2007 (4/18/07)			
INFLUENT	8.8	0.57 J	< 1
EFFLUENT	4.6	0.35 J	0.17 J
Third Quarter 2007 (7/11/07)			
INFLUENT	8.5	0.47 J	< 1
EFFLUENT	4.3	0.32 J	< 1
Fourth Quarter 2007 (10/2/07)			
INFLUENT	8.8	0.46 J	< 1
EFFLUENT	4.3	0.28 J	< 1

Notes:

J - estimated value, value is below the reporting limit.

NA - discharge limit not available.

ATTACHMENT A

DATA VALIDATION MEMOS

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 003978-10

FROM: Ruth Mickle

DATE: May 26, 2006

C.C.: Analytical Data File

RE: **Data Quality Assessment**
March 30, 2006, Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 269667)

The following details a data quality assessment for water samples collected on March 30, 2006, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W060330MT-452 and W060330MT-453 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were established in the Quality Assurance Project Plan (QAPP).[2]

HOLDING TIME PERIOD & SAMPLE PRESERVATION

The holding time period for the VOC analysis is 14 days from sample collection to analysis. On the basis of sample collection dates on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period. The samples were properly preserved to a pH less than 2.

METHOD BLANK SAMPLE

Contamination of the samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank yielded a methylene chloride (0.53 µg/L) detection. However, since the associated investigative sample data were nondetect for this parameter, no data qualification was required. The remaining method blank results were free of target analytes.

---

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW 846, Third Edition, November 1986 and updates.

2 Application of relevant quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored by surrogate recoveries. The surrogate recoveries were within acceptance criteria, indicating that individual sample performance was adequate.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance for the analyses was monitored by means of a LCS/LCSD. LCS/LCSD results were within acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded methylene chloride (7.1 µg/L) and acetone (5.0 µg/L) detections. Since the associated sample data were nondetect for methylene chloride, no methylene chloride data qualification was required.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision pertaining to the above criteria, and may be used without qualification.

RLM/jla/69

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 003978-10

FROM: Ruth Mickle

DATE: August 30, 2006

C.C.: Analytical Data File

RE: **Data Quality Assessment**
July 20, 2006, Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 305984)

The following details a data quality assessment for water samples collected on July 20, 2006, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W060720MT-454 and W060720MT-455 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were established in the Quality Assurance Project Plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for the VOC analysis is 14 days from sample collection to analysis. On the basis of sample collection dates on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

METHOD BLANK SAMPLE

Contamination of the samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank sample yielded several detections. The associated methylene chloride and vinyl chloride data for sample W060720MT-454 should be qualified as nondetect (1U).

---

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW 846, Third Edition, November 1986 and updates.

2 Application of relevant quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored by surrogate recoveries. The surrogate recoveries were within acceptance criteria, indicating that individual sample performance was adequate.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance for the analyses was monitored by means of a LCS/LCSD. The percent recoveries were within acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. The percent recovery and RPD data were within acceptance criteria.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank sample yielded methylene chloride and vinyl chloride detections. However, since the associated samples were previously qualified as nondetect, no data qualification was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision pertaining to the above criteria, and may be used with the qualifications noted.

RLM/jla/70

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 003978-10

FROM: Ruth Mickle

DATE: December 15, 2006

C.C.: Analytical Data File

RE: **Data Quality Assessment**
October 11, 2006, Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 4680)

The following details a data quality assessment for water samples collected on October 11, 2006, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W-061011-RA-32 and W-061011-RA-33 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were established in the Quality Assurance Project Plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for the VOC analysis is 14 days from sample collection to analysis. On the basis of sample collection dates on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

METHOD BLANK SAMPLE

Contamination of the samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank sample was free of target analytes.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW 846, Third Edition, November 1986 and updates.

2 Application of relevant quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored by surrogate recoveries. The surrogate recoveries were within acceptance criteria, indicating that individual sample performance was adequate.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance for the analyses was monitored by means of a LCS/LCSD. The percent recoveries were within acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. The percent recovery and RPD data were within acceptance criteria.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank sample was free of target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision pertaining to the above criteria, and may be used without qualification.

RLM/jla/73

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: February 7, 2007

C.C.: Analytical Data File

RE: **Data Quality Assessment**
January 22, 2007, Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 335155)

The following details a data quality assessment for groundwater samples collected January 22, 2007, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W070122MT-460 and W070122MT-461 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank yielded a methylene chloride detection (2.5 µg/L). There were no associated methylene chloride detections.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded acetone (5.6 µg/L), methylene chloride (1.0 µg/L) and 2-butanone (0.56 µg/L) detections. Since there were no associated methylene chloride or 2-butanone detections in the project samples, no qualification was required based on trip blank results. The associated acetone detection in sample W070122MT-461 should be qualified as nondetect (10U) based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used with the qualification noted.

RLM/jla/74

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: May 10, 2007

C.C.: Analytical Data File

RE: **Data Quality Assessment**
April 18, 2007 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 330960)

The following details a data quality assessment for groundwater samples collected April 18, 2007, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W070418MT-464 and W070418MT-465 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

METHOD BLANK SAMPLE

1. VOC method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.
2. Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank yielded a methylene chloride detection (0.49 µg/L). The associated samples were free of methylene chloride and, therefore, no data qualification was required.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a methylene chloride (0.90 µg/L) detection. Since there were no associated methylene chloride detections in the project samples, no qualification was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/jla/75

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
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www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: September 5, 2007

C.C.: Analytical Data File

RE: **Data Quality Assessment**
July 11, 2007 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 331921)

The following details a data quality assessment for groundwater samples collected July 11, 2007, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W070711MT-466 and W070711MT-467 were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Severn Trent Laboratories (STL) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by STL, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank was free of target analytes.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank was free of target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/plh/76

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
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Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: April 15, 2008

C.C.: Analytical Data File

RE: **Data Quality Assessment**
October 2, 2007 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 266773)

The following details a data quality assessment for groundwater samples collected October 2, 2007, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W071002MT-468 (Influent) and W071002MT-469 (Effluent) were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Test America in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank was free of target analytes.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded an acetone detection. Since the associated sample data were nondetect for this parameter, no data qualification was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/jla/80

CONESTOGA-ROVERS
& ASSOCIATES

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April 30, 2008

Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

Dear Mr. Gore and Ms. Kramer:

Re: First Quarter 2008 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this first quarter 2008 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site (Site). Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

First quarter 2008 samples were collected on January 3, 2008, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for Site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	9	4.8	41,000
cis-1,2-dichloroethene	0.46 J	0.31 J	NA

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

The pump operated continuously during the first quarter of 2008, except for two days, 3 hours on February 26, when it was shut down while updating the motor controls of the pump. Between January 3 and March 31, 2008, the pump operated at an average flow rate of 790 gpm. A total of 100,315,000 gallons of water were treated by EW1 in the first quarter of 2008 (January 3 to March 31).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

JT/rb/48
Enc.

c.c. Terry Kopplin; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Assoc.,Inc.
PROJECT NO. 3978
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
KE3L5	A8A040152-001	W080103MT-470	Influent
KE3M9	A8A040152-002	W080103MT-471	Effluent
KE3ND	A8A040152-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Amy L. McCormick
Project Manager

January 18, 2008

CASE NARRATIVE

A8A040152

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received January 04, 2008, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 23.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.4°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(s) 8009199. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A8A040152

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W080103MT-470 01/03/08 09:00 001				
Trichloroethene	9.0	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.46 J	1.0	ug/L	SW846 8260B
W080103MT-471 01/03/08 09:00 002				
Trichloroethene	4.8	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.31 J	1.0	ug/L	SW846 8260B
TRIP BLANK 01/03/08 003				
Methylene chloride	0.77 J	1.0	ug/L	SW846 8260B
Acetone	6.1 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A8A040152

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A8A040152

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KE3L5	001	W080103MT-470	01/03/08	09:00
KE3M9	002	W080103MT-471	01/03/08	09:00
KE3ND	003	TRIP BLANK	01/03/08	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W080103MT-470 **Influent**

GC/MS Volatiles

Lot-Sample #...: A8A040152-001 **Work Order #...:** KE3L51AA **Matrix.....:** WG
Date Sampled...: 01/03/08 09:00 **Date Received..:** 01/04/08
Prep Date.....: 01/09/08 **Analysis Date..:** 01/09/08
Prep Batch #...: 8009199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**9.0**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.46 J**	**1.0**	**ug/L**
trans-1,2-Dichloroethene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

(Continued on next page)

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W080103MT-470

GC/MS Volatiles

Lot-Sample #...: A8A040152-001 Work Order #...: KE3L51AA Matrix.....: WG

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W080103MT-471

GC/MS Volatiles

Lot-Sample #...: A8A040152-002 **Work Order #...:** KE3M91AA **Matrix.....:** WG
Date Sampled...: 01/03/08 09:00 **Date Received..:** 01/04/08
Prep Date.....: 01/09/08 **Analysis Date..:** 01/09/08
Prep Batch #...: 8009199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**4.8**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.31 J**	**1.0**	**ug/L**
trans-1,2-Dichloroethene	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

(Continued on next page)

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W080103MT-471

GC/MS Volatiles

Lot-Sample #...: A8A040152-002 Work Order #...: KE3M91AA Matrix.....: WG

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A8A040152-003 **Work Order #...:** KE3ND1AA **Matrix.....:** WQ
Date Sampled...: 01/03/08 **Date Received..:** 01/04/08
Prep Date.....: 01/09/08 **Analysis Date..:** 01/09/08
Prep Batch #...: 8009199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	**0.77 J**	**1.0**	**ug/L**
Acetone	**6.1 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

(Continued on next page)

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A8A040152-003 Work Order #...: KE3ND1AA Matrix.....: WQ

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8A040152 **Work Order #...:** KE9DG1AA **Matrix.....:** WATER
MB Lot-Sample #: A8A090000-199

Prep Date.....: 01/09/08
Analysis Date..: 01/09/08 **Prep Batch #...:** 8009199
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8A040152 **Work Order #...:** KE9DG1AA **Matrix.....:** WATER

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8A040152 **Work Order #...:** KE9DG1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8A090000-199 KE9DG1AD-LCSD
Prep Date.....: 01/09/08 **Analysis Date..:** 01/09/08
Prep Batch #...: 8009199
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**86**	**(63 - 130)**			**SW846 8260B**
	96	**(63 - 130)**	**10**	**(0-20)**	**SW846 8260B**
Trichloroethene	**87**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**11**	**(0-20)**	**SW846 8260B**
Benzene	**82**	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**13**	**(0-20)**	**SW846 8260B**
Toluene	**88**	**(74 - 119)**			**SW846 8260B**
	94	**(74 - 119)**	**7.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**89**	**(76 - 117)**			**SW846 8260B**
	95	**(76 - 117)**	**6.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	93	(61 - 128)
Toluene-d8	98	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8A040152 **Work Order #...:** KE9DG1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8A090000-199 KE9DG1AD-LCSD
Prep Date.....: 01/09/08 **Analysis Date..:** 01/09/08
Prep Batch #...: 8009199
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**8.6**	**ug/L**	**86**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**10**	**SW846 8260B**
Trichloroethene	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	10	**9.8**	**ug/L**	**98**	**11**	**SW846 8260B**
Benzene	**10**	**8.2**	**ug/L**	**82**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**13**	**SW846 8260B**
Toluene	**10**	**8.8**	**ug/L**	**88**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**7.0**	**SW846 8260B**
Chlorobenzene	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	10	**9.5**	**ug/L**	**95**	**6.7**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	93	(61 - 128)
Toluene-d8	98	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

[redacted]

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0907)

Client: MARATHON ELEC. MFG. CORP	Project Manager: TERRY KOPPLIN	Date: 01/03/08	Chain of Custody Number: 374455
Address: 100 EAST RANDOLPH ST.	Telephone Number (Area Code)/Fax Number: 715-675-8274	Lab Number:	Page 1 of 1
City: WAUSAU / State: WI / Zip Code: 54401	Site Contact:	Lab Contact:	
Project Name and Location (State):	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC's	Special Instructions/ Conditions of Receipt
W080103MT-470	01/03/08	9:00 AM								X			X	3-40ML VIAL SIGOT SAMPLE
W080103MT-471	01/03/08	9:00 AM								X			X	3-40ML VIAL SPILLWAY "GRAB" SAMPLE

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: MARLIN THUOT	01/03/08	9:03 AM	1. Received By: Renae Williamson	1/4/08	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A8A041052
North Canton Facility

Client Marathon Project _____ Quote # 92276

Cooler Received on 1/4/08 Opened on 1/4/08 By Ryan Williamson (Signature)

FedEx ☒ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ TestAmerica Courier ☐

Stetson ☐ US Cargo ☐ Other _____

TestAmerica Cooler # _____ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler? Yes ☐ No ☒ Intact? Yes ☐ No ☐ NA ☒
   If YES, Quantity _____
   Were custody seals on the outside of cooler signed and dated? Yes ☐ No ☐ NA ☒
   Were custody seals on the bottles? Yes ☐ No ☒
   If YES, are there any exceptions _____
2. Shipper's packing slip attached to this form? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 2.4 °C (see back of form for multiple coolers/temps)

METHOD: IR ☒ Other ☐ _____

COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☒ No ☐
9. Were samples at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottles used for the tests indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a Trip Blank present in the cooler? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM ALM Date 1-4-08 by AJS via Voice Mail ☐ Verbal ☑ Other ☐

Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
Rec'd ~~no~~ 1 VOA trip blank not on coc, will log at end of lot

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot #071707-HNO3 - Sulfuric Acid Lot # 092006-H2SO4; Sodium Hydroxide Lot # 122805 -NaOH; Hydrochloric Acid Lot # 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot # 050205-CH3COO2ZN/NaOH*

What time was preservative added to sample(s)? _____

Sample(s) _____ were received with bubble > 6 mm in diameter (Notify PM)

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp °C	Method	Coolant

Discrepancies Cont'd

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: February 21, 2008

C.C.: Analytical Data File

RE: **Data Quality Assessment**
January 3, 2008 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 374455)

The following details a data quality assessment for groundwater samples collected January 3, 2008, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W080103MT-470 (Influent) and W080103MT-471(Effluent) were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Test America in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analyses of a method blank sample. The VOC blank was free of target analytes.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of one trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded acetone and methylene chloride detections. Since the associated sample data were nondetect for these parameters, no data qualification was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/jla/79

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

August 29, 2008

Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

Dear Mr. Gore and Ms. Kramer:

Re: Second Quarter 2008 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this second quarter 2008 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site (Site). Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Second quarter 2008 samples were collected on April 1, 2008, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for Site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	6.7	4.9	41,000
cis-1,2-dichloroethene	0.47 J	0.34 J	NA

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

The pump operated continuously during the second quarter of 2008, except for the following dates:

- April 3rd for 12 minutes, when it was shut down in order to measure the static head.
- June 2nd for 1 hour 30 minutes, when is it was shut down to clean the strainer screen.
- June 6th for 3 hours 30 minutes, due to loss of power from power plant.

Between April 23 and July 3, 2008, the pump operated at an average flow rate of 795 gpm. A total of 107,783,000 gallons of water were treated by EW1 in the second quarter of 2008 (April 23 to July 3).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

MR/sb/49
Enc.

c.c. Terry Kopplin; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

REVISED

Ruth Mickle
Conestoga-Rovers & Assoc.,Inc.
PROJECT NO. 3978
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
KKKH0	A8D020174-001	W080401MT-472	Influent
KKKJP	A8D020174-002	W080401MT-473	Effluent
KKKJQ	A8D020174-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Amy L. McCormick
Project Manager

April 23, 2008

CASE NARRATIVE

A8D020174

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received April 02, 2008, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 5.6°C.

CASE NARRATIVE (continued)

SAMPLE RECEIVING (continued)

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet.acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A8D020174

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W080401MT-472 04/01/08 10:30 001				
Trichloroethene	6.7	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.47 J	1.0	ug/L	SW846 8260B
W080401MT-473 04/01/08 10:25 002				
Trichloroethene	4.9	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	0.34 J	1.0	ug/L	SW846 8260B
TRIP BLANK 04/01/08 003				
Methylene chloride	0.81 J	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A8D020174

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A8D020174

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KKKH0	001	W080401MT-472	04/01/08	10:30
KKKJP	002	W080401MT-473	04/01/08	10:25
KKKJQ	003	TRIP BLANK	04/01/08	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W080401MT-472

GC/MS Volatiles

Lot-Sample #...: A8D020174-001	**Work Order #...:** KKKH01AA	**Matrix.....:** WG	
Date Sampled...: 04/01/08 10:30	**Date Received..:** 04/02/08		
Prep Date.....: 04/08/08	**Analysis Date..:** 04/08/08		
Prep Batch #...: 8100093			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	**6.7**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.47 J**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W080401MT-473

GC/MS Volatiles

Lot-Sample #...: A8D020174-002 **Work Order #...:** KKKJP1AA **Matrix.....:** WG
Date Sampled...: 04/01/08 10:25 **Date Received..:** 04/02/08
Prep Date.....: 04/08/08 **Analysis Date..:** 04/08/08
Prep Batch #...: 8100093
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	**4.9**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.34 J**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A8D020174-003	**Work Order #...:** KKKJQ1AA	**Matrix.....:** WQ	
Date Sampled...: 04/01/08	**Date Received..:** 04/02/08		
Prep Date.....: 04/08/08	**Analysis Date..:** 04/08/08		
Prep Batch #...: 8100093			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	1.0	ug/L
Methylene chloride	**0.81 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8D020174 **Work Order #...:** KKXR61AA **Matrix.....:** WATER
MB Lot-Sample #: A8D090000-093

Prep Date.....: 04/08/08
Analysis Date..: 04/08/08 **Prep Batch #...:** 8100093
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8D020174 **Work Order #...:** KKXR61AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8D090000-093 KKXR61AD-LCSD
Prep Date.....: 04/08/08 **Analysis Date..:** 04/08/08
Prep Batch #...: 8100093
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(63 - 130)**			**SW846 8260B**
	100	**(63 - 130)**	**9.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**85**	**(75 - 122)**			**SW846 8260B**
	104	**(75 - 122)**	**20**	**(0-20)**	**SW846 8260B**
Benzene	**87**	**(80 - 116)**			**SW846 8260B**
	98	**(80 - 116)**	**12**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(74 - 119)**			**SW846 8260B**
	103	**(74 - 119)**	**15**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**87**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**16**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	99	(61 - 128)
Toluene-d8	98	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)
	100	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8D020174 **Work Order #...:** KKXR61AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8D090000-093 KKXR61AD-LCSD
Prep Date.....: 04/08/08 **Analysis Date..:** 04/08/08
Prep Batch #...: 8100093
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**9.1**	**SW846 8260B**
Trichloroethene	**10**	**8.5**	**ug/L**	**85**		**SW846 8260B**
	10	**10**	**ug/L**	**104**	**20**	**SW846 8260B**
Benzene	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	10	**9.8**	**ug/L**	**98**	**12**	**SW846 8260B**
Toluene	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**15**	**SW846 8260B**
Chlorobenzene	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	10	**10**	**ug/L**	**102**	**16**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	99	(61 - 128)
Toluene-d8	98	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)
	100	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8D020174 **Work Order #...:** KKMNN1CA-MS **Matrix.....:** WATER
MS Lot-Sample #: A8D030126-012 KKMNN1CC-MSD
Date Sampled...: 04/02/08 14:20 **Date Received..:** 04/03/08
Prep Date.....: 04/08/08 **Analysis Date..:** 04/08/08
Prep Batch #...: 8100093
Dilution Factor: 22.22

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Trichloroethene	**93**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**0.05**	**(0-20)**	**SW846 8260B**
Benzene	**92**	**(78 - 118)**			**SW846 8260B**
	91	**(78 - 118)**	**1.4**	**(0-20)**	**SW846 8260B**
Toluene	**90**	**(70 - 119)**			**SW846 8260B**
	93	**(70 - 119)**	**3.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**93**	**(62 - 130)**			**SW846 8260B**
	104	**(62 - 130)**	**11**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**92**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**0.03**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8D020174 **Work Order #...:** KKMNN1CA-MS **Matrix.....:** WATER
MS Lot-Sample #: A8D030126-012 KKMNN1CC-MSD
Date Sampled...: 04/02/08 14:20 **Date Received..:** 04/03/08
Prep Date.....: 04/08/08 **Analysis Date..:** 04/08/08
Prep Batch #...: 8100093
Dilution Factor: 22.22

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Trichloroethene	**ND**	**220**	**210**	**ug/L**	**93**		**SW846 8260B**
	ND	**220**	**210**	**ug/L**	**93**	**0.05**	**SW846 8260B**
Benzene	**ND**	**220**	**200**	**ug/L**	**92**		**SW846 8260B**
	ND	**220**	**200**	**ug/L**	**91**	**1.4**	**SW846 8260B**
Toluene	**ND**	**220**	**200**	**ug/L**	**90**		**SW846 8260B**
	ND	**220**	**210**	**ug/L**	**93**	**3.0**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**220**	**210**	**ug/L**	**93**		**SW846 8260B**
	ND	**220**	**230**	**ug/L**	**104**	**11**	**SW846 8260B**
Chlorobenzene	**ND**	**220**	**200**	**ug/L**	**92**		**SW846 8260B**
	ND	**220**	**200**	**ug/L**	**92**	**0.03**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

[redacted]

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0907)

Client	Project Manager	Date	Chain of Custody Number
MARATHON ELEC. MFG. CORP	TERRY KOPPLIN	04/01/08	372331
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
100 EAST RANDOLPH ST.	715-675-8274		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
WAUSAU / WI / 54401			
Project Name and Location (State)	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC's	Special Instructions/ Conditions of Receipt
WB0401MT-472	04/01/08	10:30AM				1				X			X	3-40ML VIAL SPIGOT SAMPLE
WB0401MT-473	04/01/08	10:25AM				1				X			X	3-40ML-VIAL SPILLWAY "GRAB" SAMPLE

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: MARLIN THUOT	04/01/08		1. Received By: TEST AMERICA	2 APR 08	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A8D0201744

North Canton Facility

Client MARATHON ELEC Project _____ By: _____

Cooler Received on 2 Apr 2008 Opened on 2 APR 2008 (Signature)

FedEx UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____

TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No Intact? Yes ☐ No ☐ NA
   If YES, Quantity _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA
   Were custody seals on the bottle(s)? Yes ☐ No
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes No ☐
3. Did custody papers accompany the sample(s)? Yes No ☐ Relinquished by client? Yes No ☐
4. Were the custody papers signed in the appropriate place? Yes No ☐
5. Packing material used: Bubble Wrap Foam None ☐ Other BAG ICE
6. Cooler temperature upon receipt 5.0 °C See back of form for multiple coolers/temps ☐
   METHOD: IR Other ☐ _____
   COOLANT: Wet Ice Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☐ No
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA
10. Were correct bottle(s) used for the test(s) indicated? Yes No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes No ☐
13. Was a trip blank present in the cooler(s)? Yes No ☐ Were VOAs on the COC? Yes No ☐

Contacted PM AM Date 4/2/08 by AM via Verbal ☐ Voice Mail ☒ Other ☐

Concerning 14

14. CHAIN OF CUSTODY

The following discrepancies occurred:

RECEIVED 1 x 40 TRIP BLANK NOT ON COC, will log at end of lot using date of previous sample.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot# 113007-HNO_3; Sulfuric Acid Lot# 071707-H_2SO_4; Sodium Hydroxide Lot# 073007 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-CH_3COO_2ZN/NaOH.*

What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp °C	Method	Coolant

Discrepancies Cont'd

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Grant Anderson

DATE: April 28, 2008

C.C.: Analytical Data File

RE: **Data Quality Assessment**
April 1, 2008 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 372331)

The following details a data quality assessment for water samples collected April 1, 2008, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W080401MT-472 (Influent) and W071002MT-473 (Effluent) were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Test America Laboratories, Inc. (Test America) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The VOC method blank was reported to be free from detectable concentrations of target analytes, indicating that laboratory contamination was unlikely.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a methylene chloride detection. However, methylene chloride was not detected in any of the associated samples; therefore, no qualification of data was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

GDA/ma/81

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
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The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

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2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

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Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The VOC method blank was reported to be free from detectable concentrations of target analytes, indicating that laboratory contamination was unlikely.

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Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

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The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a methylene chloride detection. However, methylene chloride was not detected in any of the associated samples; therefore, no qualification of data was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

GDA/ma/81

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

October 23, 2008

Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

Dear Mr. Gore and Ms. Kramer:

Re: Third Quarter 2008 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this third quarter 2008 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site (Site). Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Third quarter 2008 samples were collected on July 9, 2008, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for Site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	9.0	4.1	41,000
cis-1,2-dichloroethene	0.49 J	0.31 J	NA
chloroform	<1.0	0.60J	29,000

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

The pump operated continuously during the second quarter of 2008, except for the following dates:

- August 22nd for 1 1/2 hours - shut down to check for ground fault and clean well screen.
- September 6th for 1/2 hour - shut down to check for ground fault.
- September 8th for 1 1/2 hours - shut down to repair a leaking seal on pump and change the oil for the motor.

Between July 3, and October 1, 2008, the pump operated at an average flow rate of 798 gpm. A total of 103,095,000 gallons of water were treated by EW1 in the third quarter of 2008 (July 3 to October 1).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

MR/sb/50
Enc.

c.c. Wally Mattson; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

Ruth Mickle
Conestoga-Rovers & Assoc., Inc.
PROJECT NO. 3978
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
KRA7K	A8G100249-001	W080709RL-475	Influent*
KRA79	A8G100249-002	W080709RL-474	Effluent
KRA8C	A8G100249-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise Heckler for:
Amy L. McCormick
Project Manager

July 23, 2008

CASE NARRATIVE

A8G100249

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received July 10, 2008, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.3°C.

CASE NARRATIVE (continued)

SAMPLE RECEIVING (continued)

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A8G100249

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W080709RL-475 07/09/08 14:10 001				
cis-1,2-Dichloroethene	0.49 J	1.0	ug/L	SW846 8260B
Toluene	0.46 J,B	1.0	ug/L	SW846 8260B
Trichloroethene	9.0	1.0	ug/L	SW846 8260B
Xylenes (total)	0.96 J,B	1.0	ug/L	SW846 8260B
W080709RL-474 07/09/08 13:55 002				
cis-1,2-Dichloroethene	0.31 J	1.0	ug/L	SW846 8260B
Chloroform	0.60 J	1.0	ug/L	SW846 8260B
Toluene	0.45 J,B	1.0	ug/L	SW846 8260B
Trichloroethene	4.1	1.0	ug/L	SW846 8260B
Xylenes (total)	0.95 J,B	1.0	ug/L	SW846 8260B
TRIP BLANK 07/09/08 003				
Acetone	7.4 J	10	ug/L	SW846 8260B
Toluene	0.48 J,B	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A8G100249

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A8G100249

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KRA7K	001	W080709RL-475	07/09/08	14:10
KRA79	002	W080709RL-474	07/09/08	13:55
KRA8C	003	TRIP BLANK	07/09/08	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent*

Client Sample ID: W080709RL-475

GC/MS Volatiles

Lot-Sample #...: A8G100249-001 **Work Order #...:** KRA7K1AA **Matrix.....:** WG
Date Sampled...: 07/09/08 14:10 **Date Received..:** 07/10/08
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.49 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**0.46 J,B**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**9.0**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	**0.96 J,B**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W080709RL-474

GC/MS Volatiles

Lot-Sample #...: A8G100249-002 **Work Order #...:** KRA791AA **Matrix.....:** WG
Date Sampled...: 07/09/08 13:55 **Date Received..:** 07/10/08
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.31 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.60 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**0.45 J,B**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**4.1**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	**0.95 J,B**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A8G100249-003 **Work Order #...:** KRA8C1AA **Matrix.....:** WQ
Date Sampled...: 07/09/08 **Date Received..:** 07/10/08
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**7.4 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**0.48 J,B**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8G100249 **Work Order #...:** KRL1H1AA **Matrix.....:** WATER
MB Lot-Sample #: A8G160000-360

Prep Date.....: 07/14/08
Analysis Date..: 07/14/08 **Prep Batch #...:** 8198360
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.36 J**	**1.0**	**ug/L**	**SW846 8260B**
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	**0.46 J**	**1.0**	**ug/L**	**SW846 8260B**
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	**0.97 J**	**1.0**	**ug/L**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8G100249 **Work Order #...:** KRL1H1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8G160000-360 KRL1H1AD-LCSD
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**99**	**(63 - 130)**			**SW846 8260B**
	99	**(63 - 130)**	**0.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 122)**			**SW846 8260B**
	96	**(75 - 122)**	**0.22**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(80 - 116)**			**SW846 8260B**
	96	**(80 - 116)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**88**	**(74 - 119)**			**SW846 8260B**
	86	**(74 - 119)**	**2.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	95	**(76 - 117)**	**1.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	95	(61 - 128)
Toluene-d8	99	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8G100249 **Work Order #...:** KRL1H1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8G160000-360 KRL1H1AD-LCSD
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**0.0**	**SW846 8260B**
Trichloroethene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**0.22**	**SW846 8260B**
Benzene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**1.2**	**SW846 8260B**
Toluene	**10**	**8.8**	**ug/L**	**88**		**SW846 8260B**
	10	**8.6**	**ug/L**	**86**	**2.8**	**SW846 8260B**
Chlorobenzene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.5**	**ug/L**	**95**	**1.8**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	95	(61 - 128)
Toluene-d8	99	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8G100249 **Work Order #...:** KQ6G01AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A8G080146-002 KQ6G01AE-MSD
Date Sampled...: 07/03/08 **Date Received..:** 07/08/08
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 20

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**4.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**100**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**2.4**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(78 - 118)**			**SW846 8260B**
	98	**(78 - 118)**	**2.6**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(70 - 119)**			**SW846 8260B**
	87	**(70 - 119)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	96	(61 - 128)
Toluene-d8	98	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	102	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8G100249 **Work Order #...:** KQ6G01AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A8G080146-002 KQ6G01AE-MSD
Date Sampled...: 07/03/08 **Date Received..:** 07/08/08
Prep Date.....: 07/14/08 **Analysis Date..:** 07/14/08
Prep Batch #...: 8198360
Dilution Factor: 20

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**200**	**200**	**ug/L**	**102**		**SW846 8260B**
	ND	**200**	**210**	**ug/L**	**106**	**4.4**	**SW846 8260B**
Trichloroethene	**ND**	**200**	**200**	**ug/L**	**100**		**SW846 8260B**
	ND	**200**	**190**	**ug/L**	**97**	**2.4**	**SW846 8260B**
Benzene	**ND**	**200**	**200**	**ug/L**	**101**		**SW846 8260B**
	ND	**200**	**200**	**ug/L**	**98**	**2.6**	**SW846 8260B**
Toluene	**ND**	**200**	**180**	**ug/L**	**89**		**SW846 8260B**
	ND	**200**	**170**	**ug/L**	**87**	**2.4**	**SW846 8260B**
Chlorobenzene	**ND**	**200**	**200**	**ug/L**	**98**		**SW846 8260B**
	ND	**200**	**200**	**ug/L**	**99**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	96	(61 - 128)
Toluene-d8	98	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	102	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client: Regal Beloit Corp	Project Manager: Terry Koppin	Date: 7-09-08	Chain of Custody Number: 012767
Address: 100 E. Randolph St.	Telephone Number (Area Code)/Fax Number: 715 675 8274	Lab Number:	Page 1 of 1
City: Wausau / State: WI / Zip Code: 54401	Site Contact:	Lab Contact:	
Project Name and Location (State):	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed): VOCs

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/ NaOH	Special Instructions/ Conditions of Receipt
										X			
W080709R-475	7/9/08	1410								X			3-40ml Vial INF
W080709R-474	7/9/08	1355								X			3-40 " EFF

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R Larson	Date: 7-9-08	Time: 1430	1. Received By: Alena Mauger	Date: 7/10/08	Time: 910
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

18

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A8G100249
North Canton Facility

Client Regal Beloit Corp Project _____ By: Alana Mangus
Cooler Received on 7/10/08 Opened on 7/10/08 (Signature)
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other _____
TestAmerica Cooler # _____ Multiple Coolers [ ] Foam Box [ ] Client Cooler [ ] Other _____

1. Were custody seals on the outside of the cooler(s)? Yes [ ] No [X] Intact? Yes [ ] No [ ] NA [X]
   If YES, Quantity _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes [ ] No [ ] NA [X]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [X] None [ ] Other _____
6. Cooler temperature upon receipt 3.3 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ] _____
   COOLANT: Wet Ice [X] Blue Ice [ ] Dry Ice [ ] Water [ ] None [ ]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [ ] No [ ] NA [X]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [X] NA [ ]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [X] No [ ]

Contacted PM ALM Date 7/10/08 by am via Verbal [X] Voice Mail [ ] Other [ ]
Concerning 14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
COC = no tests checked for samples, will log per tests listed & per past.
COC am 7/10/08
Received 1x40 trip blank not listed on the COC, will log at the end of this lot.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot# 113007-HNO_3; Sulfuric Acid Lot# 031808-H_2SO_4; Sodium Hydroxide Lot# 073007 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-$(CH_3COO)_2ZN$/NaOH.*
What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth L. Mickle

DATE: October 14, 2008

C.C.: Analytical Data File

RE: **Data Quality Assessment**
July 9, 2008 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 012767)

The following details a data quality assessment for water samples collected July 9, 2008, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W080709RL-474 (Effluent) and W080709RL-475 (Influent) were analyzed for volatile organic compounds (VOCs).[1] The analyses were performed by Test America Laboratories, Inc. (Test America) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The VOC method blank yielded methylene chloride, toluene and xylenes detections. There were no associated methlyene chloride detections in project samples. Therefore, no data qualification of methylene chloride data was required. The associated toluene and xylenes detections in samples identified in Table 1 should be qualified as nondetect (U).

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded acetone and toluene detections. Acetone was not detected in any of the associated samples; therefore; no qualification of acetone data was required based on trip blank results. The associated toluene detections were previously qualified as nondetect (U) based on method blank results; therefore, no qualification of toluene data was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted.

RLM/sb/82
Enc.

TABLE 1

RESULTS QUALIFIED BASED ON METHOD BLANK DETECTIONS
WAUSAU SUPERFUND SITE
JULY 2008 SAMPLING EVENT

Blank ID	*Parameter*	*Blank Conc*	*Assoc Samples*	*Qualifier**
8198360	Toluene	0.46 ug/l	W080709RL-PS-474	1.0U
			W080709RL-PS-475	1.0U
8198360	Xylenes	0.97 ug/l	W080709RL-PS-474	1.0U
			W080709RL-PS-475	1.0U

*Sample result should be qualified as:
U -The analyte was analyze for, but not detected above the reported sample quantitation limit.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

January 23, 2009 Reference No. 003978-10

Mr. Jeff Gore
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Eileen Kramer
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont, Box 4001
Eau Claire, Wisconsin 54702

RECEIVED
JAN 26 2009
WC FINANCE RR

Dear Mr. Gore and Ms. Kramer:

Re: Fourth Quarter 2008 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this fourth quarter 2008 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Fourth quarter 2008 samples were collected on October 8, 2008, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	8.4	4.2	41,000
cis-1,2-dichloroethene	0.43 J	0.25	NA
chloroform	<1.0	1.6J	29,000

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

The pump operated continuously during the fourth quarter of 2008, except for being shut down for 1 ½ hours on October 4, 2008, for some electrical work in the Engineering Lab. Between October 1 and December 30, 2008, the pump operated at an average flow rate of 763 gpm. A total of 98,927,000 gallons of water were treated by EW1 in the fourth quarter of 2008 (October 1 to December 30).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

MR/ma/51
Enc.

c.c. Wally Mattson; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

Ruth Mickle
Conestoga-Rovers & Assoc., Inc.
PROJECT NO. 3978
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
K0GMP	A8J090169-001	W081008MV-476
K0GMV	A8J090169-002	W081008MV-477
K0GM0	A8J090169-003	TRIP BLANK

TESTAMERICA LABORATORIES, INC.

Amy L. McCormick
Project Manager

October 20, 2008

CASE NARRATIVE

A8J090169

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received October 09, 2008, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 23.

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.5°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A8J090169

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W081008MV-476 10/08/08 13:35 001				
cis-1,2-Dichloroethene	0.25 J	1.0	ug/L	SW846 8260B
Chloroform	1.6	1.0	ug/L	SW846 8260B
Trichloroethene	4.2	1.0	ug/L	SW846 8260B
W081008MV-477 10/08/08 13:37 002				
cis-1,2-Dichloroethene	0.43 J	1.0	ug/L	SW846 8260B
Trichloroethene	8.4	1.0	ug/L	SW846 8260B
TRIP BLANK 10/08/08 003				
Acetone	2.8 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A8J090169

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A8J090169

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K0GMP	001	W081008MV-476	10/08/08	13:35
K0GMV	002	W081008MV-477	10/08/08	13:37
K0GM0	003	TRIP BLANK	10/08/08	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W081008MV-476

GC/MS Volatiles

Lot-Sample #...: A8J090169-001 **Work Order #...:** K0GMP1AA **Matrix.....:** WG
Date Sampled...: 10/08/08 13:35 **Date Received..:** 10/09/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.25 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**1.6**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**4.2**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W081008MV-477

GC/MS Volatiles

Lot-Sample #...: A8J090169-002 **Work Order #...:** K0GMV1AA **Matrix.....:** WG
Date Sampled...: 10/08/08 13:37 **Date Received..:** 10/09/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.43 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**8.4**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A8J090169-003 **Work Order #...:** K0GM01AA **Matrix.....:** WQ
Date Sampled...: 10/08/08 **Date Received..:** 10/09/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**2.8 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

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THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** K0RNW1AA **Matrix.....:** WATER
MB Lot-Sample #: A8J140000-196

Prep Date.....: 10/13/08
Analysis Date..: 10/13/08 **Prep Batch #...:** 8288196
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.71 J**	**1.0**	**ug/L**	**SW846 8260B**
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** K0RNW1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8J140000-196 K0RNW1AD-LCSD
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**93**	**(63 - 130)**			**SW846 8260B**
	92	**(63 - 130)**	**0.93**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	95	**(75 - 122)**	**5.5**	**(0-20)**	**SW846 8260B**
Benzene	**84**	**(80 - 116)**			**SW846 8260B**
	88	**(80 - 116)**	**4.5**	**(0-20)**	**SW846 8260B**
Toluene	**84**	**(74 - 119)**			**SW846 8260B**
	88	**(74 - 119)**	**4.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**84**	**(76 - 117)**			**SW846 8260B**
	90	**(76 - 117)**	**7.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** K0RNW1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8J140000-196 K0RNW1AD-LCSD
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	10	**9.2**	**ug/L**	**92**	**0.93**	**SW846 8260B**
Trichloroethene	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	10	**9.5**	**ug/L**	**95**	**5.5**	**SW846 8260B**
Benzene	**10**	**8.4**	**ug/L**	**84**		**SW846 8260B**
	10	**8.8**	**ug/L**	**88**	**4.5**	**SW846 8260B**
Toluene	**10**	**8.4**	**ug/L**	**84**		**SW846 8260B**
	10	**8.8**	**ug/L**	**88**	**4.3**	**SW846 8260B**
Chlorobenzene	**10**	**8.4**	**ug/L**	**84**		**SW846 8260B**
	10	**9.0**	**ug/L**	**90**	**7.9**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** KX4T31AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A8J030143-018 KX4T31AE-MSD
Date Sampled...: 10/02/08 11:15 **Date Received..:** 10/03/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**90**	**(62 - 130)**			**SW846 8260B**
	90	**(62 - 130)**	**0.24**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**2.3**	**(0-20)**	**SW846 8260B**
Benzene	**87**	**(78 - 118)**			**SW846 8260B**
	90	**(78 - 118)**	**3.5**	**(0-20)**	**SW846 8260B**
Toluene	**86**	**(70 - 119)**			**SW846 8260B**
	88	**(70 - 119)**	**1.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**85**	**(76 - 117)**			**SW846 8260B**
	88	**(76 - 117)**	**3.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	95	(61 - 128)
Toluene-d8	97	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	96	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** KX4T31AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A8J030143-018 KX4T31AE-MSD
Date Sampled...: 10/02/08 11:15 **Date Received..:** 10/03/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**0.24**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	ND	**10**	**9.3**	**ug/L**	**93**	**2.3**	**SW846 8260B**
Benzene	**ND**	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**3.5**	**SW846 8260B**
Toluene	**0.26**	**10**	**8.9**	**ug/L**	**86**		**SW846 8260B**
	0.26	**10**	**9.1**	**ug/L**	**88**	**1.7**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**8.5**	**ug/L**	**85**		**SW846 8260B**
	ND	**10**	**8.8**	**ug/L**	**88**	**3.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	95	(61 - 128)
Toluene-d8	97	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	96	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** K0H6G1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A8J090313-005 K0H6G1AD-MSD
Date Sampled...: 10/07/08 12:10 **Date Received..:** 10/09/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 4

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**94**	**(62 - 130)**			**SW846 8260B**
	91	**(62 - 130)**	**3.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**79**	**(62 - 130)**			**SW846 8260B**
	69	**(62 - 130)**	**2.2**	**(0-20)**	**SW846 8260B**
Benzene	**88**	**(78 - 118)**			**SW846 8260B**
	88	**(78 - 118)**	**0.23**	**(0-20)**	**SW846 8260B**
Toluene	**88**	**(70 - 119)**			**SW846 8260B**
	90	**(70 - 119)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**89**	**(76 - 117)**			**SW846 8260B**
	88	**(76 - 117)**	**0.21**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A8J090169 **Work Order #...:** K0H6G1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A8J090313-005 K0H6G1AD-MSD
Date Sampled...: 10/07/08 12:10 **Date Received..:** 10/09/08
Prep Date.....: 10/13/08 **Analysis Date..:** 10/13/08
Prep Batch #...: 8288196
Dilution Factor: 4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**1.3**	**40**	**39**	**ug/L**	**94**		**SW846 8260B**
	1.3	**40**	**38**	**ug/L**	**91**	**3.6**	**SW846 8260B**
Trichloroethene	**160**	**40**	**190**	**ug/L**	**79**		**SW846 8260B**
	160	**40**	**190**	**ug/L**	**69**	**2.2**	**SW846 8260B**
Benzene	**ND**	**40**	**35**	**ug/L**	**88**		**SW846 8260B**
	ND	**40**	**35**	**ug/L**	**88**	**0.23**	**SW846 8260B**
Toluene	**ND**	**40**	**35**	**ug/L**	**88**		**SW846 8260B**
	ND	**40**	**36**	**ug/L**	**90**	**2.4**	**SW846 8260B**
Chlorobenzene	**ND**	**40**	**35**	**ug/L**	**89**		**SW846 8260B**
	ND	**40**	**35**	**ug/L**	**88**	**0.21**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

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THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0406)

Client: Marathon Electric Div of Regal Beloit	Project Manager: Walter Mattson	Date:	Chain of Custody Number: 006045
Address: 100 E. Randolph St	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page ____ of ____
City: Wausau / State: Wi / Zip Code: 54401	Site Contact:	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State):	Carrier/Waybill Number:		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Special Instructions/ Conditions of Receipt
W081008MV-476	10/8/08	13:35								X			3-40ml HCl Effluent
W081008MV-477	10/8/08	13:37								X			3-40ml HCl Influent

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10/8/08	13:41	1. Received By	10-9-08	0910
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 480901169

North Canton Facility

Client MARATHON ELECTRIC Project _____ By: _____ (Signature)

Cooler Received on 10-9-08 Opened on 10-9-08

FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____

TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☑ None ☐ Other _____
6. Cooler temperature upon receipt 2.5 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM AM Date 10/9/08 by _____ via Verbal ☒ Voice Mail ☐ Other ☐

Concerning 14

14. CHAIN OF CUSTODY

The following discrepancies occurred:

Rec'd 1x40 TB not on COC will log for trip blank using date of prev. Sam

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 031808-HNO_3; Sulfuric Acid Lot# 031808-H_2SO_4; Sodium Hydroxide Lot# 073007 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-$(CH_3COO)_2ZN$/NaOH.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth Mickle

DATE: December 17, 2008

C.C.: Analytical Data File

RE: **Data Quality Assessment**
October 8, 2008 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 6045)

The following details a data quality assessment for water samples collected October 8, 2008, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W081008MV-476 (Effluent) and W081008MV-477 (Influent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by Test America Laboratories, Inc. (Test America) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank yielded a methylene chloride detection. However, methylene chloride was not detected in any of the associated samples; therefore, no qualification of data was required based on method blank results.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a acetone detection. However, acetone was not detected in any of the associated samples; therefore, no qualification of data was required based on trip blank results.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/sb/84

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

April 20, 2009 Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: First Quarter 2009 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this first quarter 2009 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

First quarter 2009 samples were collected on January 7, 2009, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	7.9	3.8	41,000
cis-1,2-dichloroethene	0.43 J	0.26 J	NA
chloroform	<1.0	1.6	29,000

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

The pump operated continuously during the first quarter of 2009. Between December 30, 2008 and March 30, 2009, the pump operated at an average flow rate of 787 gpm. A total of 102,007,000 gallons of water were treated by EW1 in the first quarter of 2009 (December 30, 2008 to March 30, 2009).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

JT/sb/1
Enc.

c.c. Wally Mattson; Marathon Electric
Dave Erickson; City of Wausau
Chuck Ahrens; CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

Ruth Mickle
Conestoga-Rovers & Assoc., Inc.
PROJECT NO. 3978
WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
K5J51	A9A080151-001	W090107MV-478-1,2,3
K5J58	A9A080151-002	W090107MV-479-1,2,3
K5J59	A9A080151-003	TRIP BLANK

TESTAMERICA LABORATORIES, INC.

Amy L. McCormick
Project Manager

January 21, 2009

CASE NARRATIVE

A9A080151

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received January 08, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on January 20, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 0.8°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A9A080151

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W090107MV-478-1,2,3 01/07/09 13:25 001				
cis-1,2-Dichloroethene	0.43 J	1.0	ug/L	SW846 8260B
Trichloroethene	7.9	1.0	ug/L	SW846 8260B
W090107MV-479-1,2,3 01/07/09 12:36 002				
cis-1,2-Dichloroethene	0.26 J	1.0	ug/L	SW846 8260B
Chloroform	1.6	1.0	ug/L	SW846 8260B
Trichloroethene	3.8	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A9A080151

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9A080151

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K5J51	001	W090107MV-478-1,2,3	01/07/09	13:25
K5J58	002	W090107MV-479-1,2,3	01/07/09	12:36
K5J59	003	TRIP BLANK	01/07/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W090107MV-478-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9A080151-001 **Work Order #...:** K5J511AA **Matrix.....:** WG
Date Sampled...: 01/07/09 13:25 **Date Received..:** 01/08/09
Prep Date.....: 01/14/09 **Analysis Date..:** 01/14/09
Prep Batch #...: 9019225
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.43 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**7.9**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: W090107MV-479-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9A080151-002 **Work Order #...:** K5J581AA **Matrix.....:** WG
Date Sampled...: 01/07/09 12:36 **Date Received..:** 01/08/09
Prep Date.....: 01/14/09 **Analysis Date..:** 01/14/09
Prep Batch #...: 9019225
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.26 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**1.6**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.8**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A9A080151-003 **Work Order #...:** K5J591AA **Matrix.....:** WQ
Date Sampled...: 01/07/09 **Date Received..:** 01/08/09
Prep Date.....: 01/14/09 **Analysis Date..:** 01/14/09
Prep Batch #...: 9019225
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9A080151 **Work Order #...:** K50TL1AA **Matrix.....:** WATER
MB Lot-Sample #: A9A190000-225

Prep Date.....: 01/14/09
Analysis Date..: 01/14/09 **Prep Batch #...:** 9019225
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9A080151 **Work Order #...:** K50TL1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9A190000-225 K50TL1AD-LCSD
Prep Date.....: 01/14/09 **Analysis Date..:** 01/14/09
Prep Batch #...: 9019225
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	87	**(75 - 122)**	**3.5**	**(0-20)**	**SW846 8260B**
Benzene	**92**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**3.2**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(74 - 119)**			**SW846 8260B**
	93	**(74 - 119)**	**1.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**96**	**(63 - 130)**			**SW846 8260B**
	95	**(63 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(76 - 117)**			**SW846 8260B**
	89	**(76 - 117)**	**1.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	92	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9A080151 **Work Order #...:** K50TL1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9A190000-225 K50TL1AD-LCSD
Prep Date.....: 01/14/09 **Analysis Date..:** 01/14/09
Prep Batch #...: 9019225
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Trichloroethene	10	9.0	ug/L	90		SW846 8260B
	10	8.7	ug/L	87	3.5	SW846 8260B
Benzene	10	9.2	ug/L	92		SW846 8260B
	10	8.9	ug/L	89	3.2	SW846 8260B
Toluene	10	9.4	ug/L	94		SW846 8260B
	10	9.3	ug/L	93	1.3	SW846 8260B
1,1-Dichloroethene	10	9.6	ug/L	96		SW846 8260B
	10	9.5	ug/L	95	1.3	SW846 8260B
Chlorobenzene	10	9.0	ug/L	90		SW846 8260B
	10	8.9	ug/L	89	1.4	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	92	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9A080151 **Work Order #...:** K5P861D8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9A130188-001 K5P861D9-MSD
Date Sampled...: 01/05/09 15:54 **Date Received..:** 01/13/09
Prep Date.....: 01/14/09 **Analysis Date..:** 01/15/09
Prep Batch #...: 9019225
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**94**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**0.39**	**(0-20)**	**SW846 8260B**
Trichloroethene	**84**	**(62 - 130)**			**SW846 8260B**
	89	**(62 - 130)**	**5.6**	**(0-20)**	**SW846 8260B**
Benzene	**94**	**(78 - 118)**			**SW846 8260B**
	95	**(78 - 118)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**6.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**83**	**(76 - 117)**			**SW846 8260B**
	90	**(76 - 117)**	**8.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	94	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
	99	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	97	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9A080151 **Work Order #...:** K5P861D8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9A130188-001 K5P861D9-MSD
Date Sampled...: 01/05/09 15:54 **Date Received..:** 01/13/09
Prep Date.....: 01/14/09 **Analysis Date..:** 01/15/09
Prep Batch #...: 9019225
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	ND	**10**	**9.3**	**ug/L**	**93**	**0.39**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**8.4**	**ug/L**	**84**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**5.6**	**SW846 8260B**
Benzene	**ND**	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	ND	**10**	**9.5**	**ug/L**	**95**	**1.2**	**SW846 8260B**
Toluene	**ND**	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	ND	**10**	**9.7**	**ug/L**	**97**	**6.4**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**8.3**	**ug/L**	**83**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**8.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	94	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
	99	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	97	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

Note copy of sheet I Sm

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
Marathon Electric Div of Regal Beloit	Walter Matthes	01/07/09	007230
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of**
100 E. Randolph St.	715 675 8274		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Wausau / Wi / 54401			
Project Name and Location (State)	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Special Instr. Conditions of
W090107MV-478-1	1/07/09	13:25								X			3-40ml Vial Influ
-2		13:25								X			
-3		13:26								X			
W090107MV-479-1	1/07/09	12:36								X			3-40ml Vial Effluent
-2		12:36								X			
-3		12:37								X			

Analysis (Attach list if more space is needed)

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	1/07/09	13:35	1. Received By	1/8/09	0910
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

120124

CMS

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 240590157

North Canton Facility

Client MARATHON ELECTRIC Project _____ By: _____ (Signature)

Cooler Received on 1-8-09 Opened on 1-8-09

FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____

TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 0.8 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐

Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

Recd 1440 TB not on COC will log.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100108-HNO_3; *Sulfuric Acid Lot#* 100108-H_2SO_4; *Sodium Hydroxide Lot#* 073007 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 050205-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

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END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle; CRA

REF. NO.: 003978-10

FROM: Ruth Mickle

DATE: February 26, 2009

C.C.: Analytical Data File

RE: **Data Quality Assessment**
January 7, 2009 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin (COC 7230)

The following details a data quality assessment for water samples collected January 7, 2009, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W090107MV-478-1,2,3 (Influent) and W090107MV-479-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by Test America Laboratories, Inc. (Test America) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by Test America, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank was free of target analytes.

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike samples were non-project samples, no evaluation of project samples was made based on matrix spike results.

FIELD QUALITY ASSURANCE/ QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank was free of target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

RLM/sb/86

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

July 2, 2009

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: Second Quarter 2009 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this second quarter 2009 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Second quarter 2009 samples were collected on April 27, 2009, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	6.5	3.8	41,000
cis-1,2-dichloroethene	0.45 J	0.29 J	NA
chloroform	<1.0	0.22 J	29,000

Notes:
J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

The pump operated continuously during the second quarter of 2009. Between March 30, and June 30, 2009, the pump operated at an average flow rate of 654 gpm. A total of 86,654,000 gallons of water were treated by EW1 in the second quarter of 2009 (March 30 to June 30, 2009).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

JT/sb/3
Encl.

cc: Wally Mattson, Marathon Electric
Dave Erickson, City of Wausau
Chuck Ahrens, CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

Ruth Mickle
Conestoga-Rovers & Assoc., Inc.
PROJECT NO. 3978
EXTRACTION WELL

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
LAWPV	A9D280134-001	W090427MV-480-1,2,3
LAWP4	A9D280134-002	W090427MV-481-1,2,3
LAWP8	A9D280134-003	TRIP BLANK

TESTAMERICA LABORATORIES, INC.

Amy L. McCormick
Project Manager

May 12, 2009

CASE NARRATIVE

A9D280134

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Extraction Well Site, project number 3978. The samples were received April 28, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on May 08, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.0°C.

See TestAmerica's Cooler Receipt Form for additional information.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A9D280134

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W090427MV-480-1,2,3 04/27/09 11:12 001				
cis-1,2-Dichloroethene	0.45 J	1.0	ug/L	SW846 8260B
Trichloroethene	6.5	1.0	ug/L	SW846 8260B
W090427MV-481-1,2,3 04/27/09 11:20 002				
cis-1,2-Dichloroethene	0.29 J	1.0	ug/L	SW846 8260B
Chloroform	0.22 J	1.0	ug/L	SW846 8260B
Trichloroethene	3.8	1.0	ug/L	SW846 8260B
TRIP BLANK 04/27/09 003				
Chloroform	0.21 J	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A9D280134

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9D280134

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SA TI
LAWPV	001	W090427MV-480-1,2,3	04/27/09	11
LAWP4	002	W090427MV-481-1,2,3	04/27/09	11
LAWP8	003	TRIP BLANK	04/27/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W090427MV-480-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9D280134-001 **Work Order #...:** LAWPV1AA **Matrix.....:** WG
Date Sampled...: 04/27/09 11:12 **Date Received..:** 04/28/09
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.45 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**6.5**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W090427MV-481-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9D280134-002 **Work Order #...:** LAWP41AA **Matrix.....:** WG
Date Sampled...: 04/27/09 11:20 **Date Received..:** 04/28/09
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.29 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.22 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.8**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A9D280134-003 **Work Order #...:** LAWP81AA **Matrix.....:** WQ
Date Sampled...: 04/27/09 **Date Received..:** 04/28/09
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.21 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9D280134 **Work Order #...:** LCDKH1AA **Matrix.....:** WATER
MB Lot-Sample #: A9E050000-369

Prep Date.....: 05/04/09
Analysis Date..: 05/04/09 **Prep Batch #...:** 9125369
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9D280134 **Work Order #...:** LCDKH1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9E050000-369 LCDKH1AD-LCSD
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**86**	**(63 - 130)**			**SW846 8260B**
	92	**(63 - 130)**	**6.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**89**	**(75 - 122)**			**SW846 8260B**
	96	**(75 - 122)**	**7.8**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(80 - 116)**			**SW846 8260B**
	107	**(80 - 116)**	**6.3**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(74 - 119)**			**SW846 8260B**
	108	**(74 - 119)**	**2.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**2.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
	89	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
	91	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	104	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9D280134 **Work Order #...:** LCDKH1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9E050000-369 LCDKH1AD-LCSD
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**8.6**	**ug/L**	**86**		**SW846 8260B**
	10	**9.2**	**ug/L**	**92**	**6.4**	**SW846 8260B**
Trichloroethene	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**7.8**	**SW846 8260B**
Benzene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**11**	**ug/L**	**107**	**6.3**	**SW846 8260B**
Toluene	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	10	**11**	**ug/L**	**108**	**2.0**	**SW846 8260B**
Chlorobenzene	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**2.5**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
	89	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
	91	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	104	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9D280134 **Work Order #...:** LAWPV1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D280134-001 LAWPV1AD-MSD
Date Sampled...: 04/27/09 11:12 **Date Received..:** 04/28/09
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	93	(62 - 130)			SW846 8260B
	91	(62 - 130)	1.9	(0-20)	SW846 8260B
Trichloroethene	96	(62 - 130)			SW846 8260B
	96	(62 - 130)	0.13	(0-20)	SW846 8260B
Benzene	102	(78 - 118)			SW846 8260B
	101	(78 - 118)	0.41	(0-20)	SW846 8260B
Toluene	102	(70 - 119)			SW846 8260B
	103	(70 - 119)	1.1	(0-20)	SW846 8260B
Chlorobenzene	95	(76 - 117)			SW846 8260B
	96	(76 - 117)	0.82	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(73 - 122)
	87	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	88	(61 - 128)
Toluene-d8	96	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	108	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9D280134 **Work Order #...:** LAWPV1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D280134-001 LAWPV1AD-MSD
Date Sampled...: 04/27/09 11:12 **Date Received..:** 04/28/09
Prep Date.....: 05/04/09 **Analysis Date..:** 05/04/09
Prep Batch #...: 9125369
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	ND	**10**	**9.1**	**ug/L**	**91**	**1.9**	**SW846 8260B**
Trichloroethene	**6.5**	**10**	**16**	**ug/L**	**96**		**SW846 8260B**
	6.5	**10**	**16**	**ug/L**	**96**	**0.13**	**SW846 8260B**
Benzene	**ND**	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**101**	**0.41**	**SW846 8260B**
Toluene	**ND**	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**103**	**1.1**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	ND	**10**	**9.6**	**ug/L**	**96**	**0.82**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(73 - 122)
	87	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	88	(61 - 128)
Toluene-d8	96	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	108	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

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TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Marathon Electric Mfg. Co	Client Project Manager: Walter Mattson	Site Contact: Walter Mattson	Lab Contact:	COC No:
Address: 100E Randolph St	Telephone: 715-675-8274	Telephone: 715-675-8274	Telephone:	___ of ___ COCs
City/State/Zip: Wausau, Wi 54401	Email:		Analyses	
Phone: 715-675-		TAT (different from below) ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: Extraction Well	Method of Shipment/Carrier:			
Project Number: Ref 3978	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Sample Specific Notes / Special Instructions:
W090427MV - 480 - 1	4/27/09	11:12													3-40ml vial HCl
" " -2	"	11:12													Influent
" " -3	"	11:12													↓
W090427MV - 481 - 1	4/27/09	11:20													
" " -2	"	11:20													3-40ml vial HCl
" " -3	"	11:20													Effluent
															↓

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter Mattson	Marathon Electric	04/27/09		TAL	4-28-09 9:20
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A9D280134
North Canton Facility

Client Marathon Electric Project ______ By: [signature] (Signature)
Cooler Received on 4-28-09 Opened on 4-28-09
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ______
TestAmerica Cooler # ______ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other ______

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable ______
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? ______
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other ______
6. Cooler temperature upon receipt 4.0 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ ______
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM ______ Date ______ by ______ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning ______

14. CHAIN OF CUSTODY

The following discrepancies occurred:
1x40 trip blank received not on coc will log

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 031909-*HNO_3; Sulfuric Acid Lot#* 100108-*H_2SO_4; Sodium Hydroxide Lot#* 073007 *-NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 050205-*$(CH_3COO)_2ZN/NaOH$*. What time was preservative added to sample(s)? ______

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Jason Twaddle, CRA	REF. NO.:	003978-10
FROM:	Ruth Mickle/sb/87	DATE:	June 1, 2009
CC:	Analytical Data File		
RE:	Data Quality Assessment April 27, 2009 Sampling Event Wausau Superfund Site - Wausau, Wisconsin		

The following details a data quality assessment for water samples collected April 27, 2009, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W090427MV-480-1,2,3 (Influent) and W090427MV-481-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank was free of target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. The MS/MSD spike sample data were within acceptance criteria.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a chloroform detection. The associated chloroform detection in sample W090427MV-481-1,2,3 should be qualified as nondetect (1U). The trip blank was free of the remaining target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used with the qualification noted.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

November 5, 2009

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: Third Quarter 2009 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this third quarter 2009 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Third quarter 2009 samples were collected on July 7, 2009, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are attached as Attachment A and B, respectively. A summary of the detected parameters is reported below. Parameter concentrations are compared to the surface water discharge limits for EW1, originally presented in the Remedial Action Plan when EW1 was installed.

Parameter	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	8.9	3.8	41,000
cis-1,2-dichloroethene	0.55 J	0.26 J	NA
chloroform	<1.0	0.47 J	29,000

Notes:

J - estimated value, value is below the reporting limit.
NA - discharge limit not available.
All values are reported in µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

November 5, 2009 Reference No. 003978-10

The pump operated continuously during the third quarter of 2009. Between June 30, and October 8, 2009, the pump operated at an average flow rate of 600 gpm. A total of 86,454,000 gallons of water were treated by EW1 in the third quarter of 2009 (June 30 to October 8, 2009).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jason Twaddle

MR/sb/4
Encl.

cc: Lee Bergmann, Marathon Electric
Dave Erickson, City of Wausau
Chuck Ahrens, CRA (w/o enc.)

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

Ruth Mickle
Conestoga-Rovers & Assoc.,Inc.
PROJECT NO. 3978
EXTRACTION WELL

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
LF6QK	A9G080187-001	W090707MV-482-1,2,3	Influent
LF6QM	A9G080187-002	W090707MV-483-1,2,3	Effluent
LF6QP	A9G080187-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.
Denise Heckler for:
Amy L. McCormick
Project Manager

July 20, 2009

CASE NARRATIVE

A9G080187

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Extraction Well Site, project number 3978. The samples were received July 08, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on July 20, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 21.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.9°C.

CASE NARRATIVE (continued)

SAMPLE RECEIVING (continued)

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A9G080187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W090707MV-482-1,2,3 07/07/09 11:00 001				
cis-1,2-Dichloroethene	0.55 J	1.0	ug/L	SW846 8260B
Trichloroethene	8.9	1.0	ug/L	SW846 8260B
W090707MV-483-1,2,3 07/07/09 11:07 002				
cis-1,2-Dichloroethene	0.26 J	1.0	ug/L	SW846 8260B
Chloroform	0.47 J	1.0	ug/L	SW846 8260B
Trichloroethene	3.8	1.0	ug/L	SW846 8260B
TRIP BLANK 07/07/09 003				
Acetone	2.7 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A9G080187

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9G080187

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LF6QK	001	W090707MV-482-1,2,3	07/07/09	11:0
LF6QM	002	W090707MV-483-1,2,3	07/07/09	11:0
LF6QP	003	TRIP BLANK	07/07/09	

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W090707MV-482-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9G080187-001 **Work Order #...:** LF6QK1AA **Matrix.....:** WG
Date Sampled...: 07/07/09 11:00 **Date Received..:** 07/08/09
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.55 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**8.9**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W090707MV-483-1,2,3

GC/MS Volatiles

Lot-Sample #...: A9G080187-002 **Work Order #...:** LF6QM1AA **Matrix.....:** WG
Date Sampled...: 07/07/09 11:07 **Date Received..:** 07/08/09
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.26 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.47 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.8**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A9G080187-003 **Work Order #...:** LF6QP1AA **Matrix.....:** WQ
Date Sampled...: 07/07/09 **Date Received..:** 07/08/09
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**2.7 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9G080187 **Work Order #...:** LGJJL1AA **Matrix.....:** WATER
MB Lot-Sample #: A9G150000-416

Prep Date.....: 07/15/09
Analysis Date..: 07/15/09 **Prep Batch #...:** 9196416
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.35 J**	**1.0**	**ug/L**	**SW846 8260B**
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9G080187 **Work Order #...:** LGJJL1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9G150000-416 LGJJL1AD-LCSD
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(63 - 130)**			**SW846 8260B**
	101	**(63 - 130)**	**5.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**100**	**(75 - 122)**			**SW846 8260B**
	99	**(75 - 122)**	**0.35**	**(0-20)**	**SW846 8260B**
Benzene	**104**	**(80 - 116)**			**SW846 8260B**
	103	**(80 - 116)**	**0.88**	**(0-20)**	**SW846 8260B**
Toluene	**104**	**(74 - 119)**			**SW846 8260B**
	103	**(74 - 119)**	**1.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**0.47**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	87	(61 - 128)
Toluene-d8	101	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	106	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9G080187 **Work Order #...:** LGJJL1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9G150000-416 LGJJL1AD-LCSD
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**5.4**	**SW846 8260B**
Trichloroethene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**0.35**	**SW846 8260B**
Benzene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**0.88**	**SW846 8260B**
Toluene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**1.2**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	10	**10**	**ug/L**	**102**	**0.47**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	87	(61 - 128)
Toluene-d8	101	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	106	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9G080187 **Work Order #...:** LF6WF1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A9G080213-004 LF6WF1AD-MSD
Date Sampled...: 07/07/09 09:15 **Date Received..:** 07/08/09
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 14.29

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	98	**(62 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	99	**(62 - 130)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**106**	**(78 - 118)**			**SW846 8260B**
	103	**(78 - 118)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(70 - 119)**			**SW846 8260B**
	106	**(70 - 119)**	**0.07**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**2.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	93	(61 - 128)
Toluene-d8	104	(76 - 110)
	105	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	106	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9G080187 **Work Order #...:** LF6WF1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A9G080213-004 LF6WF1AD-MSD
Date Sampled...: 07/07/09 09:15 **Date Received..:** 07/08/09
Prep Date.....: 07/15/09 **Analysis Date..:** 07/15/09
Prep Batch #...: 9196416
Dilution Factor: 14.29

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	5.1	140	150	ug/L	99		SW846 8260B
	5.1	140	150	ug/L	98	1.4	SW846 8260B
Trichloroethene	21	140	160	ug/L	97		SW846 8260B
	21	140	160	ug/L	99	1.5	SW846 8260B
Benzene	ND	140	150	ug/L	106		SW846 8260B
	ND	140	150	ug/L	103	2.8	SW846 8260B
Toluene	ND	140	150	ug/L	106		SW846 8260B
	ND	140	150	ug/L	106	0.07	SW846 8260B
Chlorobenzene	ND	140	150	ug/L	104		SW846 8260B
	ND	140	150	ug/L	102	2.3	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	93	(61 - 128)
Toluene-d8	104	(76 - 110)
	105	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	106	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Marathon Electric Mfg Co	Client Project Manager: Walter Mattson	Site Contact: Loc Bergmann	Lab Contact:	COC No:
Address: 100 E Randolph Street	Telephone: 715-675-8274	Telephone: 715-675-8104	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI, 54401	Email:			
Phone: 715-675		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: Extraction Well	Method of Shipment/Carrier:			
Project Number: 3978	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Sample Specific Notes / Special Instructions:
W090707mu-492-1	7-7-09	11:00								X					3-40ml vial HCl
" " -2	7-7-09	11:01								X					Influent
" " -3	7-7-09	11:02								X					1
W090707mu-493-1	7-7-09	11:07								X					3-40ml vial HCl
" " -2	7-7-09	11:08								X					Effluent
" " -3	7-7-09	11:09								X					4

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter Mattson	Marathon Electric	7/7/09 11:32			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Jerry Burns	TA	7/8/09 915

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 240080187
North Canton Facility

Client Marathon Elec Project Ent well By: Doug Burns
Cooler Received on 7/8/09 Opened on 7/8/09 (Signature)
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ____
TestAmerica Cooler # No # Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other ____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable ____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? ____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other air bags
6. Cooler temperature upon receipt 4.9 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ ____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM ALM Date 7/8/09 by YB via Verbal ☐ Voice Mail ☒ Other ☐
Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
1x40 ml trip blank not on COC
test not marked on COC, will log for 5ds VOCs.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 031909-HNO_3; Sulfuric Acid Lot# 100108-H_2SO_4; Sodium Hydroxide Lot# 073007 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-$(CH_3COO)_2ZN$/NaOH.* What time was preservative added to sample(s)? ____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Jason Twaddle, CRA

REF. NO.: 003978-10

FROM: Ruth Mickle/sb/88

DATE: November 3, 2009

CC: Analytical Data File

RE: Data Quality Assessment
July 7, 2009 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin

The following details a data quality assessment for water samples collected July 7, 2009, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W090707MV-482-1,2,3 (Influent) and W090707MV-483-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

---

1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank yielded a methylene chloride detection. Since the associated sample data were nondetect for this parameter, no data qualification was required. The method blank was free of the remaining target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a acetone detection. Since the associated sample data were nondetect for this parameter, no data qualification was required. The trip blank was free of the remaining target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

January 14, 2010

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: Fourth Quarter 2009 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this fourth quarter 2009 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Fourth quarter 2009 samples were collected on November 9, 2009, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	7.7	3.4	41,000
cis-1,2-dichloroethene	0.42 J	0.26 J	none
chloroform	<1.0	1.8	29,000

Notes:
J - estimated value, below the method reporting limit.
Units: µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

January 14, 2010 Reference No. 003978-10

EW1 operated continuously during the fourth quarter of 2009, except for two hours on December 7 to clean a filter in the discharge line. From October 8, 2009, through January 4, 2010, the pump operated at an average flow rate of 565 gpm. After the discharge line filter was cleaned on December 7, the flow rate has been maintained above 600 gpm. A total of 71,790,000 gallons of water were treated by EW1 in the fourth quarter of 2009 (October 8, 2009, to January 4, 2010).

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/ma/5
Encl.

cc: Lee Bergmann, Marathon Electric
Dave Erickson, City of Wausau

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. 3978
Wausau Superfund

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
LN6WG	A9K100513-001	W091109MV-484-123	Influent
LN6WW	A9K100513-002	W091109MV-485-123	Effluent
LN6WX	A9K100513-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise D Heckler

Approved for release.
Denise D. Heckler
Project Manager
11/20/2009 3:57 PM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

November 20, 2009

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A9K100513

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received November 10, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.4°C.

CASE NARRATIVE (continued)

SAMPLE RECEIVING (continued)

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 9323382 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A9K100513

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W091109MV-484-123 11/09/09 10:00 001				
cis-1,2-Dichloroethene	0.42 J	1.0	ug/L	SW846 8260B
Trichloroethene	7.7	1.0	ug/L	SW846 8260B
W091109MV-485-123 11/09/09 10:10 002				
cis-1,2-Dichloroethene	0.26 J	1.0	ug/L	SW846 8260B
Chloroform	1.8	1.0	ug/L	SW846 8260B
Trichloroethene	3.4	1.0	ug/L	SW846 8260B
TRIP BLANK 11/09/09 003				
Acetone	2.7 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A9K100513

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9K100513

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LN6WG	001	W091109MV-484-123	11/09/09	10:00
LN6WW	002	W091109MV-485-123	11/09/09	10:10
LN6WX	003	TRIP BLANK	11/09/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc. Influent

Client Sample ID: W091109MV-484-123

GC/MS Volatiles

Lot-Sample #...: A9K100513-001 **Work Order #...:** LN6WG1AA **Matrix.....:** WG
Date Sampled...: 11/09/09 10:00 **Date Received..:** 11/10/09
Prep Date.....: 11/18/09 **Analysis Date..:** 11/18/09
Prep Batch #...: 9323382
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.42 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**7.7**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W091109MV-485-123

GC/MS Volatiles

Lot-Sample #...: A9K100513-002 **Work Order #...:** LN6WW1AA **Matrix.....:** WG
Date Sampled...: 11/09/09 10:10 **Date Received..:** 11/10/09
Prep Date.....: 11/18/09 **Analysis Date..:** 11/18/09
Prep Batch #...: 9323382
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.26 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**1.8**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.4**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A9K100513-003 **Work Order #...:** LN6WX1AA **Matrix.....:** WQ
Date Sampled...: 11/09/09 **Date Received..:** 11/10/09
Prep Date.....: 11/18/09 **Analysis Date..:** 11/18/09
Prep Batch #...: 9323382
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**2.7 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LPQ691AA **Matrix.....:** WATER
MB Lot-Sample #: A9K190000-382

Prep Date.....: 11/18/09
Analysis Date..: 11/18/09 **Prep Batch #...:** 9323382
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.48 J**	**1.0**	**ug/L**	**SW846 8260B**
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LPQ691AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9K190000-382 LPQ691AD-LCSD
Prep Date.....: 11/17/09 **Analysis Date..:** 11/17/09
Prep Batch #...: 9323382
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	90	(61 - 120)			SW846 8260B
	87	(61 - 120)	3.4	(0-30)	SW846 8260B
Methylene chloride	90	(78 - 118)			SW846 8260B
	91	(78 - 118)	1.0	(0-30)	SW846 8260B
Acetone	92	(22 - 200)			SW846 8260B
	83	(22 - 200)	9.9	(0-95)	SW846 8260B
1,1-Dichloroethene	**100**	**(63 - 130)**			**SW846 8260B**
	96	**(63 - 130)**	**3.7**	**(0-20)**	**SW846 8260B**
Chloroform	95	(84 - 128)			SW846 8260B
	96	(84 - 128)	1.6	(0-30)	SW846 8260B
Carbon tetrachloride	88	(75 - 149)			SW846 8260B
	89	(75 - 149)	0.88	(0-30)	SW846 8260B
Trichloroethene	**94**	**(75 - 122)**			**SW846 8260B**
	96	**(75 - 122)**	**2.2**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	93	(83 - 122)			SW846 8260B
	93	(83 - 122)	0.32	(0-30)	SW846 8260B
Benzene	**92**	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**2.4**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	91	(88 - 113)			SW846 8260B
	96	(88 - 113)	5.8	(0-30)	SW846 8260B
Toluene	**93**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**2.7**	**(0-20)**	**SW846 8260B**
Ethylbenzene	92	(86 - 116)			SW846 8260B
	94	(86 - 116)	1.5	(0-30)	SW846 8260B
Xylenes (total)	94	(87 - 116)			SW846 8260B
	95	(87 - 116)	0.43	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	96	(85 - 113)			SW846 8260B
	94	(85 - 113)	2.0	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	89	(61 - 128)
Toluene-d8	95	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	96	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LPQ691AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9K190000-382 LPQ691AD-LCSD
Prep Date.....: 11/17/09 **Analysis Date..:** 11/17/09
Prep Batch #...: 9323382
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	10	9.0	ug/L	90		SW846 8260B
	10	8.7	ug/L	87	3.4	SW846 8260B
Methylene chloride	10	9.0	ug/L	90		SW846 8260B
	10	9.1	ug/L	91	1.0	SW846 8260B
Acetone	10	9.2	ug/L	92		SW846 8260B
	10	8.3	ug/L	83	9.9	SW846 8260B
1,1-Dichloroethene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**3.7**	**SW846 8260B**
Chloroform	10	9.5	ug/L	95		SW846 8260B
	10	9.6	ug/L	96	1.6	SW846 8260B
Carbon tetrachloride	10	8.8	ug/L	88		SW846 8260B
	10	8.9	ug/L	89	0.88	SW846 8260B
Trichloroethene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**2.2**	**SW846 8260B**
1,1,2-Trichloroethane	10	9.3	ug/L	93		SW846 8260B
	10	9.3	ug/L	93	0.32	SW846 8260B
Benzene	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**2.4**	**SW846 8260B**
Tetrachloroethene	10	9.1	ug/L	91		SW846 8260B
	10	9.6	ug/L	96	5.8	SW846 8260B
Toluene	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**2.7**	**SW846 8260B**
Ethylbenzene	10	9.2	ug/L	92		SW846 8260B
	10	9.4	ug/L	94	1.5	SW846 8260B
Xylenes (total)	30	28	ug/L	94		SW846 8260B
	30	28	ug/L	95	0.43	SW846 8260B
cis-1,2-Dichloroethene	10	9.6	ug/L	96		SW846 8260B
	10	9.4	ug/L	94	2.0	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	89	(61 - 128)
Toluene-d8	95	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	96	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LN8M91A8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9K110460-003 LN8M91A9-MSD
Date Sampled...: 11/09/09 16:55 **Date Received..:** 11/11/09
Prep Date.....: 11/18/09 **Analysis Date..:** 11/18/09
Prep Batch #...: 9323382
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**1.6**	**(0-20)**	**SW846 8260B**
Vinyl chloride	94	(88 - 126)			SW846 8260B
	83 a	(88 - 126)	12	(0-30)	SW846 8260B
Methylene chloride	87	(82 - 115)			SW846 8260B
	83	(82 - 115)	4.3	(0-30)	SW846 8260B
Acetone	71	(45 - 128)			SW846 8260B
	82	(45 - 128)	14	(0-30)	SW846 8260B
Chloroform	95	(83 - 141)			SW846 8260B
	94	(83 - 141)	1.5	(0-30)	SW846 8260B
Carbon tetrachloride	87	(63 - 176)			SW846 8260B
	85	(63 - 176)	2.7	(0-30)	SW846 8260B
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**1.2**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	95	(86 - 129)			SW846 8260B
	96	(86 - 129)	0.49	(0-30)	SW846 8260B
Benzene	**92**	**(78 - 118)**			**SW846 8260B**
	90	**(78 - 118)**	**2.2**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	91	(85 - 121)			SW846 8260B
	88	(85 - 121)	3.1	(0-30)	SW846 8260B
Toluene	**98**	**(70 - 119)**			**SW846 8260B**
	94	**(70 - 119)**	**4.8**	**(0-20)**	**SW846 8260B**
Ethylbenzene	92	(86 - 132)			SW846 8260B
	89	(86 - 132)	3.0	(0-30)	SW846 8260B
Xylenes (total)	93	(89 - 121)			SW846 8260B
	89	(89 - 121)	4.6	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	93	(87 - 114)			SW846 8260B
	94	(87 - 114)	1.2	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	90	(61 - 128)
Toluene-d8	99	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	98	(74 - 116)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LN8M91A8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9K110460-003 LN8M91A9-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LN8M91A8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9K110460-003 LN8M91A9-MSD
Date Sampled...: 11/09/09 16:55 **Date Received..:** 11/11/09
Prep Date.....: 11/18/09 **Analysis Date..:** 11/18/09
Prep Batch #...: 9323382
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	ND	**10**	**9.4**	**ug/L**	**94**	**1.6**	**SW846 8260B**
Vinyl chloride	ND	10	9.4	ug/L	94		SW846 8260B
	ND	10	8.3	ug/L	83 a	12	SW846 8260B
Methylene chloride	ND	10	8.7	ug/L	87		SW846 8260B
	ND	10	8.3	ug/L	83	4.3	SW846 8260B
Acetone	ND	10	7.1	ug/L	71		SW846 8260B
	ND	10	8.2	ug/L	82	14	SW846 8260B
Chloroform	ND	10	9.5	ug/L	95		SW846 8260B
	ND	10	9.4	ug/L	94	1.5	SW846 8260B
Carbon tetrachloride	ND	10	8.7	ug/L	87		SW846 8260B
	ND	10	8.5	ug/L	85	2.7	SW846 8260B
Trichloroethene	**ND**	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	ND	**10**	**9.4**	**ug/L**	**94**	**1.2**	**SW846 8260B**
1,1,2-Trichloroethane	ND	10	9.5	ug/L	95		SW846 8260B
	ND	10	9.6	ug/L	96	0.49	SW846 8260B
Benzene	**ND**	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**2.2**	**SW846 8260B**
Tetrachloroethene	ND	10	9.1	ug/L	91		SW846 8260B
	ND	10	8.8	ug/L	88	3.1	SW846 8260B
Toluene	**ND**	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	ND	**10**	**9.4**	**ug/L**	**94**	**4.8**	**SW846 8260B**
Ethylbenzene	ND	10	9.2	ug/L	92		SW846 8260B
	ND	10	8.9	ug/L	89	3.0	SW846 8260B
Xylenes (total)	ND	30	28	ug/L	93		SW846 8260B
	ND	30	27	ug/L	89	4.6	SW846 8260B
cis-1,2-Dichloroethene	ND	10	9.3	ug/L	93		SW846 8260B
	ND	10	9.4	ug/L	94	1.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	90	(61 - 128)
Toluene-d8	99	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	98	(74 - 116)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9K100513 **Work Order #...:** LN8M91A8-MS **Matrix.....:** WATER
MS Lot-Sample #: A9K110460-003 LN8M91A9-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Marathon Electric Mfg. Co.	Client Project Manager: Lee Bergmann	Site Contact: Lee Bergmann	Lab Contact:	COC No:
Address: 100 E. Randolph Street	Telephone: 715-675-8104	Telephone: 715-675-8104	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbeloit			
Phone: 715-675-8104		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: Extraction Well	Method of Shipment/Carrier:			
Project Number: 3978	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:											Sample Specific Notes / Special Instructions:
WO91109MV-484-1	11/09/09	10:00A		✓						✓															3-40ml w/HCl
WO91109MV-484-2	11/09/09	10:01A		✓						✓															Influent
WO91109MV-484-3	11/09/09	10:02A		✓						✓															↓
WO91109MV-485-1	11/09/09	10:10A		✓						✓															3-40ml w/HCl
WO91109MV-485-2	11/09/09	10:11A		✓						✓															Effluent
WO91109MV-485-3	11/09/09	10:12A		✓						✓															↓

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lee Bergmann	Marathon Electric	11/09/09 11:00AM			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Matthew Jones	Company: TESTAMERICA	Date/Time: 10 NOV 09 0910

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A9K100513
North Canton Facility

Client MARATHON ELECTRIC Project EXTRACTION WELL By: Matthew Hoff (Signature)
Cooler Received on 10 NOV 2009 Opened on 10 NOV 2009
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ____
TestAmerica Cooler # ____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other ____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable ____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? ____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other Paper BAG
6. Cooler temperature upon receipt 3.4 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ ____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? MAF 11/10 ~~Yes~~ ☒ No ☒
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM ____ Date ____ by ____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning ____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
REC'D 1x40ml TB... NOT ON COC. will log.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 031909-HNO_3; *Sulfuric Acid Lot#* 082509-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? ____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp °C	Method	Coolant

Discrepancies Cont'd

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Chuck Ahrens, CRA	REF. NO.:	003978-10
FROM:	Ruth Mickle/sb/1	DATE:	December 7, 2009
CC:	Analytical Data File		
RE:	Data Quality Assessment November 9, 2009 Sampling Event Wausau Superfund Site - Wausau, Wisconsin		

The following details a data quality assessment for water samples collected November 9, 2009, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W091109MV-484-123 (Influent) and W091109MV-485-123 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank yielded a methylene chloride detection. Since the associated sample data were nondetect for this parameter, no data qualification was required. The method blank was free of the remaining target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a acetone detection. Since the associated sample data were nondetect for this parameter, no data qualification was required. The trip blank was free of the remaining target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

April 15, 2010

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: First Quarter 2010 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this first quarter 2010 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

First quarter 2010 samples were collected on March 30, 2010, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	6.5	2.9	41,000
cis-1,2-dichloroethene	0.40 J	<1.0	none
chloroform	<1.0	1.7	29,000

Notes:

J - estimated value, below the method reporting limit.
Units: µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

April 15, 2010 Reference No. 003978-10

EW1 operated continuously during the first quarter of 2010, except for 45 minutes on February 12, 2010, to clean and inspect the totalizer meter. Due to fowling of the totalizer meter, it was not operating properly during the first quarter. After the meter was cleaned in February, the flow totals were not consistent with the head in the well, pressure readings, and electrical usage. Therefore, the average flow rate and the total gallons removed for the first quarter cannot be accurately estimated. The meter will be serviced and calibrated during the second quarter of 2010.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/sb/7
Encl.

cc: Lee Bergmann, Marathon Electric
Dave Erickson, City of Wausau

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. 3978
Wausau Superfund

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
LXDCF	A0C310494-001	W100330MV-486-1,2,3	Influent
LXDCR	A0C310494-002	W100330MV-487-1,2,3	Effluent
LXDCX	A0C310494-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise D Heckler

Approved for release.
Denise D. Heckler
Project Manager
4/12/2010 8:14 AM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

April 08, 2010

CASE NARRATIVE

A0C310494

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the Wausau Superfund Site, project number 3978. The samples were received March 31, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on April 06, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.6°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 0095200 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0C310494

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W100330MV-486-1,2,3 03/30/10 12:26 001				
cis-1,2-Dichloroethene	0.40 J	1.0	ug/L	SW846 8260B
Trichloroethene	6.5	1.0	ug/L	SW846 8260B
W100330MV-487-1,2,3 03/30/10 12:15 002				
Chloroform	1.7	1.0	ug/L	SW846 8260B
Trichloroethene	2.9	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0C310494

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0C310494

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LXDCF	001	W100330MV-486-1,2,3	03/30/10	12:26
LXDCR	002	W100330MV-487-1,2,3	03/30/10	12:15
LXDCX	003	TRIP BLANK	03/30/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W100330MV-486-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0C310494-001	**Work Order #...:** LXDCF1AA	**Matrix.....:** WG	
Date Sampled...: 03/30/10 12:26	**Date Received..:** 03/31/10		
Prep Date.....: 04/05/10	**Analysis Date..:** 04/05/10		
Prep Batch #...: 0095200			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.40 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**6.5**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W100330MV-487-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0C310494-002	**Work Order #...:** LXDCR1AA	**Matrix.....:** WG	
Date Sampled...: 03/30/10 12:15	**Date Received..:** 03/31/10		
Prep Date.....: 04/05/10	**Analysis Date..:** 04/05/10		
Prep Batch #...: 0095200			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**1.7**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**2.9**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0C310494-003 **Work Order #...:** LXDCX1AA **Matrix.....:** WQ
Date Sampled...: 03/30/10 **Date Received..:** 03/31/10
Prep Date.....: 04/05/10 **Analysis Date..:** 04/05/10
Prep Batch #...: 0095200
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXH9J1AA **Matrix.....:** WATER
MB Lot-Sample #: A0D050000-200

Prep Date.....: 04/05/10
Analysis Date..: 04/05/10 **Prep Batch #...:** 0095200
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXH9J1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0D050000-200 LXH9J1AD-LCSD
Prep Date.....: 04/05/10 **Analysis Date..:** 04/05/10
Prep Batch #...: 0095200
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	92	(61 - 120)			SW846 8260B
	91	(61 - 120)	1.8	(0-30)	SW846 8260B
Methylene chloride	103	(78 - 118)			SW846 8260B
	103	(78 - 118)	0.39	(0-30)	SW846 8260B
Acetone	95	(22 - 200)			SW846 8260B
	103	(22 - 200)	8.6	(0-95)	SW846 8260B
1,1-Dichloroethene	**103**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**0.66**	**(0-20)**	**SW846 8260B**
Chloroform	98	(84 - 128)			SW846 8260B
	97	(84 - 128)	0.24	(0-30)	SW846 8260B
Carbon tetrachloride	91	(75 - 149)			SW846 8260B
	87	(75 - 149)	4.5	(0-30)	SW846 8260B
Trichloroethene	**88**	**(75 - 122)**			**SW846 8260B**
	88	**(75 - 122)**	**0.34**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	98	(83 - 122)			SW846 8260B
	96	(83 - 122)	1.3	(0-30)	SW846 8260B
Benzene	**95**	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**1.4**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	92	(88 - 113)			SW846 8260B
	89	(88 - 113)	3.2	(0-30)	SW846 8260B
Toluene	**97**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**0.86**	**(0-20)**	**SW846 8260B**
Ethylbenzene	94	(86 - 116)			SW846 8260B
	93	(86 - 116)	1.0	(0-30)	SW846 8260B
Xylenes (total)	95	(87 - 116)			SW846 8260B
	95	(87 - 116)	0.20	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	91	(85 - 113)			SW846 8260B
	91	(85 - 113)	0.17	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
	91	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	99	(61 - 128)
Toluene-d8	95	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	97	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXH9J1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0D050000-200 LXH9J1AD-LCSD
Prep Date.....: 04/05/10 **Analysis Date..:** 04/05/10
Prep Batch #...: 0095200
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	10	9.2	ug/L	92		SW846 8260B
	10	9.1	ug/L	91	1.8	SW846 8260B
Methylene chloride	10	10	ug/L	103		SW846 8260B
	10	10	ug/L	103	0.39	SW846 8260B
Acetone	20	19	ug/L	95		SW846 8260B
	20	21	ug/L	103	8.6	SW846 8260B
1,1-Dichloroethene	**10**	**10**	**ug/L**	**103**		**SW846 8260B**
	10	**10**	**ug/L**	**104**	**0.66**	**SW846 8260B**
Chloroform	10	9.8	ug/L	98		SW846 8260B
	10	9.7	ug/L	97	0.24	SW846 8260B
Carbon tetrachloride	10	9.1	ug/L	91		SW846 8260B
	10	8.7	ug/L	87	4.5	SW846 8260B
Trichloroethene	**10**	**8.8**	**ug/L**	**88**		**SW846 8260B**
	10	**8.8**	**ug/L**	**88**	**0.34**	**SW846 8260B**
1,1,2-Trichloroethane	10	9.8	ug/L	98		SW846 8260B
	10	9.6	ug/L	96	1.3	SW846 8260B
Benzene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**1.4**	**SW846 8260B**
Tetrachloroethene	10	9.2	ug/L	92		SW846 8260B
	10	8.9	ug/L	89	3.2	SW846 8260B
Toluene	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	10	**9.6**	**ug/L**	**96**	**0.86**	**SW846 8260B**
Ethylbenzene	10	9.4	ug/L	94		SW846 8260B
	10	9.3	ug/L	93	1.0	SW846 8260B
Xylenes (total)	30	29	ug/L	95		SW846 8260B
	30	29	ug/L	95	0.20	SW846 8260B
cis-1,2-Dichloroethene	10	9.1	ug/L	91		SW846 8260B
	10	9.1	ug/L	91	0.17	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
	91	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	99	(61 - 128)
Toluene-d8	95	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	97	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXAND1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0C300529-008 LXAND1AD-MSD
Date Sampled...: 03/30/10 08:30 **Date Received..:** 03/30/10
Prep Date.....: 04/05/10 **Analysis Date..:** 04/05/10
Prep Batch #...: 0095200
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**115**	**(62 - 130)**			**SW846 8260B**
	114	**(62 - 130)**	**0.59**	**(0-20)**	**SW846 8260B**
Vinyl chloride	98	(88 - 126)			SW846 8260B
	97	(88 - 126)	1.5	(0-30)	SW846 8260B
Methylene chloride	104	(82 - 115)			SW846 8260B
	100	(82 - 115)	4.1	(0-30)	SW846 8260B
Acetone	111	(45 - 128)			SW846 8260B
	113	(45 - 128)	2.1	(0-30)	SW846 8260B
Chloroform	93	(83 - 141)			SW846 8260B
	90	(83 - 141)	2.8	(0-30)	SW846 8260B
Carbon tetrachloride	89	(63 - 176)			SW846 8260B
	89	(63 - 176)	0.47	(0-30)	SW846 8260B
Trichloroethene	**83**	**(62 - 130)**			**SW846 8260B**
	83	**(62 - 130)**	**0.07**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	93	(86 - 129)			SW846 8260B
	89	(86 - 129)	3.8	(0-30)	SW846 8260B
Benzene	**90**	**(78 - 118)**			**SW846 8260B**
	89	**(78 - 118)**	**1.5**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	90	(85 - 121)			SW846 8260B
	91	(85 - 121)	0.65	(0-30)	SW846 8260B
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	90	**(70 - 119)**	**2.0**	**(0-20)**	**SW846 8260B**
Ethylbenzene	88	(86 - 132)			SW846 8260B
	87	(86 - 132)	1.2	(0-30)	SW846 8260B
Xylenes (total)	89	(89 - 121)			SW846 8260B
	88 a	(89 - 121)	1.1	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	86 a	(87 - 114)			SW846 8260B
	84 a	(87 - 114)	2.4	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	92	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	101	(61 - 128)
Toluene-d8	97	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	96	(74 - 116)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXAND1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0C300529-008 LXAND1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXAND1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0C300529-008 LXAND1AD-MSD
Date Sampled...: 03/30/10 08:30 **Date Received..:** 03/30/10
Prep Date.....: 04/05/10 **Analysis Date..:** 04/05/10
Prep Batch #...: 0095200
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**0.70**	**10**	**12**	**ug/L**	**115**		**SW846 8260B**
	0.70	**10**	**12**	**ug/L**	**114**	**0.59**	**SW846 8260B**
Vinyl chloride	ND	10	9.8	ug/L	98		SW846 8260B
	ND	10	9.7	ug/L	97	1.5	SW846 8260B
Methylene chloride	ND	10	10	ug/L	104		SW846 8260B
	ND	10	10	ug/L	100	4.1	SW846 8260B
Acetone	ND	20	22	ug/L	111		SW846 8260B
	ND	20	23	ug/L	113	2.1	SW846 8260B
Chloroform	ND	10	9.3	ug/L	93		SW846 8260B
	ND	10	9.0	ug/L	90	2.8	SW846 8260B
Carbon tetrachloride	ND	10	8.9	ug/L	89		SW846 8260B
	ND	10	8.9	ug/L	89	0.47	SW846 8260B
Trichloroethene	**ND**	**10**	**8.3**	**ug/L**	**83**		**SW846 8260B**
	ND	**10**	**8.3**	**ug/L**	**83**	**0.07**	**SW846 8260B**
1,1,2-Trichloroethane	ND	10	9.3	ug/L	93		SW846 8260B
	ND	10	8.9	ug/L	89	3.8	SW846 8260B
Benzene	**ND**	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**1.5**	**SW846 8260B**
Tetrachloroethene	ND	10	9.0	ug/L	90		SW846 8260B
	ND	10	9.1	ug/L	91	0.65	SW846 8260B
Toluene	**ND**	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**2.0**	**SW846 8260B**
Ethylbenzene	ND	10	8.8	ug/L	88		SW846 8260B
	ND	10	8.7	ug/L	87	1.2	SW846 8260B
Xylenes (total)	ND	30	27	ug/L	89		SW846 8260B
	ND	30	26	ug/L	88 a	1.1	SW846 8260B
cis-1,2-Dichloroethene	ND	10	8.6	ug/L	86 a		SW846 8260B
	ND	10	8.4	ug/L	84 a	2.4	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	92	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	101	(61 - 128)
Toluene-d8	97	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	96	(74 - 116)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0C310494 **Work Order #...:** LXAND1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0C300529-008 LXAND1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: MARATHON ELECTRIC	Client Project Manager: Lee Bergmann	Site Contact: Lee Bergmann	Lab Contact:	COC No:
Address: 100 E. RANDOLPH ST	Telephone: 715.675.804	Telephone: 715.675.8104	Telephone:	____ of ____ COCs
City/State/Zip: WAUSAU WI 54401	Email: lee.bergmann@regalbelo			
Phone: 715.675.3311		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: EW1	Method of Shipment/Carrier:			
Project Number: 3978	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Sample Specific Notes / Special Instructions:
W100330MV-486-1	03.30.10	12:26		-						-					3-40ml w/HCl
W100330MV-486-2	03.30.10	12:27		-						-					Influent
W100330MV-486-3	03.30.10	12:28		-						-					↓
W100330MV-487-1	03.30.10	12:15		-						-					3-40ml w/HCl
W100330MV-487-2	03.30.10	12:17		-						-					Effluent
W100330MV-487-3	03.30.10	12:18		-						-					↓

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lee Bergmann	MARATHON ELECTRIC	03.30.10 / 12:50pm			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	3/31/10 915

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 440310494
North Canton Facility

Client Marathon Electric Project _____ By: _____
Cooler Received on 3-31-10 Opened on 3-31-10 (Signature)
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other _____
6. Cooler temperature upon receipt 1.6 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM DDH Date 3/31/10 by JM via Verbal ☒ Voice Mail ☐ Other ☐
Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
Received 2x40 trip blank not on coc. Will log per DDH.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 121709-HNO_3; Sulfuric Acid Lot# 121709-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN$/NaOH.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Chuck Ahrens, CRA

REF. NO.: 003978-10

FROM: Ruth Mickle/sb/4

DATE: April 15, 2010

CC: Analytical Data File

RE: Data Quality Assessment
March 30, 2010 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin

The following details a data quality assessment for water samples collected March 30, 2010, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W100330MV-486-1,2,3 (Influent) and W100330MV-487-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank was free of target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank was free of target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

July 14, 2010

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: Second Quarter 2010 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this second quarter 2010 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Second quarter 2010 samples were collected on June 21, 2010, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	7.7	3.3	41,000
cis-1,2-dichloroethene	0.44 J	0.22J	none
chloroform	<1.0	0.33J	29,000

Notes:

J - estimated value, below the method reporting limit.
Units: µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

July 14, 2010 Reference No. 003978-10

EW1 operated continuously during the second quarter of 2010 except for 59 minutes on April 23 and 30 minutes on June 22 to clean the discharge line screens. From April 1, 2010, through June 30, 2010, the pump operated at an average flow rate of 490 gpm. A total of 63,820,000 gallons of water were treated by EW1 in the second quarter of 2010 (April 1, 2010, to June 30, 2010). The flow meter was calibrated on June 30 and, although we have not received the contractor's final report, initial indications are that the meter was accurate within 5%. Higher pumping rates have become difficult to maintain due to increasing amounts of iron bacteria. CRA and Marathon Electric are currently assessing potential options for cleaning and disinfecting EW1.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/sb/8
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. 3978
EW-1 WAUSAU SUPERFUND

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
L28GR	A0F220451-001	W100621MV-488-1,2,3	Influent
L28HL	A0F220451-002	W100621MV-489-1,2,3	Effluent
L28HQ	A0F220451-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise D Heckler

Approved for release.
Denise D. Heckler
Project Manager
7/6/2010 11:15 AM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

July 01, 2010

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0F220451

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the EW-1 Wausau Superfund Site, project number 3978. The samples were received June 22, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on June 30, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.4°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 0179265 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0F220451

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W100621MV-488-1,2,3 06/21/10 11:41 001				
cis-1,2-Dichloroethene	0.44 J	1.0	ug/L	SW846 8260B
Trichloroethene	7.7	1.0	ug/L	SW846 8260B
W100621MV-489-1,2,3 06/21/10 11:25 002				
cis-1,2-Dichloroethene	0.22 J	1.0	ug/L	SW846 8260B
Chloroform	0.33 J	1.0	ug/L	SW846 8260B
Trichloroethene	3.3	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0F220451

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F220451

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L28GR	001	W100621MV-488-1,2,3	06/21/10	11:41
L28HL	002	W100621MV-489-1,2,3	06/21/10	11:25
L28HQ	003	TRIP BLANK	06/21/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W100621MV-488-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0F220451-001 **Work Order #...:** L28GR1AA **Matrix.....:** WG
Date Sampled...: 06/21/10 11:41 **Date Received..:** 06/22/10
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.44 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**7.7**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W100621MV-489-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0F220451-002 **Work Order #...:** L28HL1AA **Matrix.....:** WG
Date Sampled...: 06/21/10 11:25 **Date Received..:** 06/22/10
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.22 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.33 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.3**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0F220451-003 **Work Order #...:** L28HQ1AA **Matrix.....:** WQ
Date Sampled...: 06/21/10 **Date Received..:** 06/22/10
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L3G9E1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F280000-265

Prep Date.....: 06/28/10
Analysis Date..: 06/28/10 **Prep Batch #...:** 0179265
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.60 J**	**1.0**	**ug/L**	**SW846 8260B**
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L3G9E1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F280000-265 L3G9E1AD-LCSD
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	71	(61 - 120)			SW846 8260B
	75	(61 - 120)	4.8	(0-30)	SW846 8260B
Methylene chloride	105	(78 - 118)			SW846 8260B
	104	(78 - 118)	0.60	(0-30)	SW846 8260B
Acetone	103	(22 - 200)			SW846 8260B
	85	(22 - 200)	20	(0-95)	SW846 8260B
1,1-Dichloroethene	**111**	**(63 - 130)**			**SW846 8260B**
	97	**(63 - 130)**	**13**	**(0-20)**	**SW846 8260B**
Chloroform	106	(84 - 128)			SW846 8260B
	106	(84 - 128)	0.19	(0-30)	SW846 8260B
Carbon tetrachloride	109	(75 - 149)			SW846 8260B
	107	(75 - 149)	2.4	(0-30)	SW846 8260B
Trichloroethene	**106**	**(75 - 122)**			**SW846 8260B**
	104	**(75 - 122)**	**2.1**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	101	(83 - 122)			SW846 8260B
	99	(83 - 122)	2.1	(0-30)	SW846 8260B
Benzene	**106**	**(80 - 116)**			**SW846 8260B**
	104	**(80 - 116)**	**2.0**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	101	(88 - 113)			SW846 8260B
	99	(88 - 113)	2.6	(0-30)	SW846 8260B
Toluene	**101**	**(74 - 119)**			**SW846 8260B**
	100	**(74 - 119)**	**0.81**	**(0-20)**	**SW846 8260B**
Ethylbenzene	104	(86 - 116)			SW846 8260B
	102	(86 - 116)	1.8	(0-30)	SW846 8260B
Xylenes (total)	103	(87 - 116)			SW846 8260B
	102	(87 - 116)	0.96	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	107	(85 - 113)			SW846 8260B
	106	(85 - 113)	1.3	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	88	(61 - 128)
Toluene-d8	94	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L3G9E1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F280000-265 L3G9E1AD-LCSD
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	10	7.1	ug/L	71		SW846 8260B
	10	7.5	ug/L	75	4.8	SW846 8260B
Methylene chloride	10	11	ug/L	105		SW846 8260B
	10	10	ug/L	104	0.60	SW846 8260B
Acetone	20	21	ug/L	103		SW846 8260B
	20	17	ug/L	85	20	SW846 8260B
1,1-Dichloroethene	**10**	**11**	**ug/L**	**111**		**SW846 8260B**
	10	**9.7**	**ug/L**	**97**	**13**	**SW846 8260B**
Chloroform	10	11	ug/L	106		SW846 8260B
	10	11	ug/L	106	0.19	SW846 8260B
Carbon tetrachloride	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	107	2.4	SW846 8260B
Trichloroethene	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	10	**10**	**ug/L**	**104**	**2.1**	**SW846 8260B**
1,1,2-Trichloroethane	10	10	ug/L	101		SW846 8260B
	10	9.9	ug/L	99	2.1	SW846 8260B
Benzene	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	10	**10**	**ug/L**	**104**	**2.0**	**SW846 8260B**
Tetrachloroethene	10	10	ug/L	101		SW846 8260B
	10	9.9	ug/L	99	2.6	SW846 8260B
Toluene	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**0.81**	**SW846 8260B**
Ethylbenzene	10	10	ug/L	104		SW846 8260B
	10	10	ug/L	102	1.8	SW846 8260B
Xylenes (total)	30	31	ug/L	103		SW846 8260B
	30	31	ug/L	102	0.96	SW846 8260B
cis-1,2-Dichloroethene	10	11	ug/L	107		SW846 8260B
	10	11	ug/L	106	1.3	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	88	(61 - 128)
Toluene-d8	94	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	99	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L28V41AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F190486-021 L28V41AD-MSD
Date Sampled...: 06/17/10 10:35 **Date Received..:** 06/22/10
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 71.43

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**112**	**(62 - 130)**			**SW846 8260B**
	109	**(62 - 130)**	**3.4**	**(0-20)**	**SW846 8260B**
Vinyl chloride	73 a	(88 - 126)			SW846 8260B
	76 a	(88 - 126)	4.0	(0-30)	SW846 8260B
Methylene chloride	105	(82 - 115)			SW846 8260B
	96	(82 - 115)	8.4	(0-30)	SW846 8260B
Acetone	109	(45 - 128)			SW846 8260B
	104	(45 - 128)	5.2	(0-30)	SW846 8260B
Chloroform	111	(83 - 141)			SW846 8260B
	102	(83 - 141)	8.8	(0-30)	SW846 8260B
Carbon tetrachloride	107	(63 - 176)			SW846 8260B
	105	(63 - 176)	1.8	(0-30)	SW846 8260B
Trichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	96	**(62 - 130)**	**6.3**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	105	(86 - 129)			SW846 8260B
	98	(86 - 129)	7.4	(0-30)	SW846 8260B
Benzene	**108**	**(78 - 118)**			**SW846 8260B**
	101	**(78 - 118)**	**7.0**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	102	(85 - 121)			SW846 8260B
	83 a	(85 - 121)	5.1	(0-30)	SW846 8260B
Toluene	**102**	**(70 - 119)**			**SW846 8260B**
	94	**(70 - 119)**	**8.4**	**(0-20)**	**SW846 8260B**
Ethylbenzene	102	(86 - 132)			SW846 8260B
	95	(86 - 132)	7.1	(0-30)	SW846 8260B
Xylenes (total)	102	(89 - 121)			SW846 8260B
	93	(89 - 121)	8.9	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	111	(87 - 114)			SW846 8260B
	102	(87 - 114)	8.1	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	92	(61 - 128)
Toluene-d8	94	(76 - 110)
	92	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	98	(74 - 116)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L28V41AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F190486-021 L28V41AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L28V41AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F190486-021 L28V41AD-MSD
Date Sampled...: 06/17/10 10:35 **Date Received..:** 06/22/10
Prep Date.....: 06/28/10 **Analysis Date..:** 06/28/10
Prep Batch #...: 0179265
Dilution Factor: 71.43

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**710**	**800**	**ug/L**	**112**		**SW846 8260B**
	ND	**710**	**780**	**ug/L**	**109**	**3.4**	**SW846 8260B**
Vinyl chloride	ND	710	520	ug/L	73 a		SW846 8260B
	ND	710	540	ug/L	76 a	4.0	SW846 8260B
Methylene chloride	45	710	800	ug/L	105		SW846 8260B
	45	710	730	ug/L	96	8.4	SW846 8260B
Acetone	ND	1400	1600	ug/L	109		SW846 8260B
	ND	1400	1500	ug/L	104	5.2	SW846 8260B
Chloroform	ND	710	790	ug/L	111		SW846 8260B
	ND	710	730	ug/L	102	8.8	SW846 8260B
Carbon tetrachloride	ND	710	760	ug/L	107		SW846 8260B
	ND	710	750	ug/L	105	1.8	SW846 8260B
Trichloroethene	**20**	**710**	**750**	**ug/L**	**102**		**SW846 8260B**
	20	**710**	**710**	**ug/L**	**96**	**6.3**	**SW846 8260B**
1,1,2-Trichloroethane	ND	710	750	ug/L	105		SW846 8260B
	ND	710	700	ug/L	98	7.4	SW846 8260B
Benzene	**ND**	**710**	**770**	**ug/L**	**108**		**SW846 8260B**
	ND	**710**	**720**	**ug/L**	**101**	**7.0**	**SW846 8260B**
Tetrachloroethene	2100	710	2900	ug/L	102		SW846 8260B
	2100	710	2700	ug/L	83 a	5.1	SW846 8260B
Toluene	**ND**	**710**	**730**	**ug/L**	**102**		**SW846 8260B**
	ND	**710**	**670**	**ug/L**	**94**	**8.4**	**SW846 8260B**
Ethylbenzene	ND	710	730	ug/L	102		SW846 8260B
	ND	710	680	ug/L	95	7.1	SW846 8260B
Xylenes (total)	ND	2100	2200	ug/L	102		SW846 8260B
	ND	2100	2000	ug/L	93	8.9	SW846 8260B
cis-1,2-Dichloroethene	72	710	860	ug/L	111		SW846 8260B
	72	710	800	ug/L	102	8.1	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	92	(61 - 128)
Toluene-d8	94	(76 - 110)
	92	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	98	(74 - 116)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0F220451 **Work Order #...:** L28V41AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F190486-021 L28V41AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
MARATHON ELECTRIC Mfg.	Lee Bergmann	06/21/2010	145884
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
100E. Randolph St.	715-675-8104		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
WAUSAU / WI / 54401	Same		
Project Name and Location (State)	**Carrier/Waybill Number**		
EW-1			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Other	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Other	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
W100621MV-488-1	06.21.10	11:40A		✓							✓					3-40ml w/HCl
W100621MV-488-2	06.21.10	11:41A		✓							✓					Influent
W100621MV-488-3	06.21.10	11:41A		✓							✓					↓
W100621MV-489-1	06.21.10	11:24A		✓							✓					3-40ml w/HCl
W100621MV-489-2	06.21.10	11:24A		✓							✓					Effluent
W100681MV-489-3	06.21.10	11:25A		✓							✓					↓

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Lee Bergmann	06.21.10	12:20pm	1. Received By:	6/22/10	0930
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Cooler Receipt Form/Narrative **Lot Number:**_____
North Canton Facility

Client Marathon Electric Project Elm By: _____ (Signature)
Cooler Received on 6-22-10 Opened on 6-22-10
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other_____
TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable_____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 2-4 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
Rec'd 1x40 TB not on COC. will log.
Tetrest listed on COC, will log for 8260

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 121709-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Chuck Ahrens, CRA	REF. NO.:	003978-10
FROM:	Ruth Mickle/sb/5	DATE:	July 13, 2010
CC:	Analytical Data File		
RE:	Data Quality Assessment June 21, 2010 Sampling Event Wausau Superfund Site - Wausau, Wisconsin		

The following details a data quality assessment for water samples collected June 21, 2010, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W100621MV-488-1,2,3 (Influent) and W100621MV-489-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. With the exception of methylene chloride, the method blank was free of target analytes. Since there were no associated methylene chloride detections, no data qualification was required based on method blank data.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank was free of target analytes.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

October 13, 2010

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Mr. Gary Edelstein
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Bianchin and Mr. Edelstein:

Re: Third Quarter 2010 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this third quarter 2010 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at Marathon Electric on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Third quarter 2010 samples were collected on September 9, 2010, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	7.2	3.4	41,000
cis-1,2-dichloroethene	0.45 J	0.29J	none
chloroform	<1.0	0.37J	29,000

Notes:

J - estimated value, below the method reporting limit.
Units: µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

October 13, 2010 Reference No. 003978-10

EW1 operated continuously during the third quarter of 2010 except for 22 minutes on August 3 to clean the totalizer meter. From July 1, 2010, through September 30, 2010, the pump operated at an average flow rate of 593 gpm. As previously conveyed in our letter dated September 7, 2010, this is the highest rate that can be maintained with the existing well conditions. A total of 76,519,000 gallons of water were treated by EW1 in the third quarter of 2010.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/sb/10
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. 3978-10
WAUSAU

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
L6R5M	A0I100466-001	W1090910-490-1,2,3	Influent
L6R5R	A0I100466-002	W1090910-491-1,2,3	Effluent
L6R5T	A0I100466-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise D Heckler

Approved for release.
Denise D. Heckler
Project Manager
9/24/2010 8:18 AM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

September 23, 2010

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0I100466

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the WAUSAU Site, project number 3978-10. The samples were received September 10, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on September 20, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North 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 applicable 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.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 0.4°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 0259329 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0I100466

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W1090910-490-1,2,3 09/09/10 09:10 001				
cis-1,2-Dichloroethene	0.45 J	1.0	ug/L	SW846 8260B
Trichloroethene	7.2	1.0	ug/L	SW846 8260B
W1090910-491-1,2,3 09/09/10 09:05 002				
cis-1,2-Dichloroethene	0.29 J	1.0	ug/L	SW846 8260B
Chloroform	0.37 J	1.0	ug/L	SW846 8260B
Trichloroethene	3.4	1.0	ug/L	SW846 8260B
TRIP BLANK 09/09/10 003				
Acetone	1.2 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0I100466

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0I100466

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6R5M	001	W1090910-490-1,2,3	09/09/10	09:10
L6R5R	002	W1090910-491-1,2,3	09/09/10	09:05
L6R5T	003	TRIP BLANK	09/09/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W1090910-490-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0I100466-001 **Work Order #...:** L6R5M1AA **Matrix.....:** WG
Date Sampled...: 09/09/10 09:10 **Date Received..:** 09/10/10
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.45 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**7.2**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W1090910-491-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0I100466-002 **Work Order #...:** L6R5R1AA **Matrix.....:** WG
Date Sampled...: 09/09/10 09:05 **Date Received..:** 09/10/10
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.29 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.37 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.4**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0I100466-003 **Work Order #...:** L6R5T1AA **Matrix.....:** WQ
Date Sampled...: 09/09/10 **Date Received..:** 09/10/10
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**1.2 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L63RR1AA **Matrix.....:** WATER
MB Lot-Sample #: A0I160000-329

Prep Date.....: 09/16/10
Analysis Date..: 09/16/10 **Prep Batch #...:** 0259329
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L63RR1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0I160000-329 L63RR1AD-LCSD
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	82	(61 - 120)			SW846 8260B
	80	(61 - 120)	1.7	(0-30)	SW846 8260B
Methylene chloride	86	(78 - 118)			SW846 8260B
	86	(78 - 118)	0.63	(0-30)	SW846 8260B
Acetone	80	(22 - 200)			SW846 8260B
	100	(22 - 200)	22	(0-95)	SW846 8260B
1,1-Dichloroethene	**94**	**(63 - 130)**			**SW846 8260B**
	95	**(63 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Chloroform	95	(84 - 128)			SW846 8260B
	96	(84 - 128)	0.75	(0-30)	SW846 8260B
Carbon tetrachloride	92	(75 - 149)			SW846 8260B
	91	(75 - 149)	1.4	(0-30)	SW846 8260B
Trichloroethene	**100**	**(75 - 122)**			**SW846 8260B**
	99	**(75 - 122)**	**1.2**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	99	(83 - 122)			SW846 8260B
	100	(83 - 122)	0.75	(0-30)	SW846 8260B
Benzene	**97**	**(80 - 116)**			**SW846 8260B**
	100	**(80 - 116)**	**2.9**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	102	(88 - 113)			SW846 8260B
	104	(88 - 113)	2.1	(0-30)	SW846 8260B
Toluene	**99**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**0.10**	**(0-20)**	**SW846 8260B**
Ethylbenzene	106	(86 - 116)			SW846 8260B
	105	(86 - 116)	0.45	(0-30)	SW846 8260B
Xylenes (total)	105	(87 - 116)			SW846 8260B
	105	(87 - 116)	0.36	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	97	(85 - 113)			SW846 8260B
	97	(85 - 113)	0.050	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	92	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	111	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L63RR1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0I160000-329 L63RR1AD-LCSD
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	10	8.2	ug/L	82		SW846 8260B
	10	8.0	ug/L	80	1.7	SW846 8260B
Methylene chloride	10	8.6	ug/L	86		SW846 8260B
	10	8.6	ug/L	86	0.63	SW846 8260B
Acetone	20	16	ug/L	80		SW846 8260B
	20	20	ug/L	100	22	SW846 8260B
1,1-Dichloroethene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**9.5**	**ug/L**	**95**	**1.4**	**SW846 8260B**
Chloroform	10	9.5	ug/L	95		SW846 8260B
	10	9.6	ug/L	96	0.75	SW846 8260B
Carbon tetrachloride	10	9.2	ug/L	92		SW846 8260B
	10	9.1	ug/L	91	1.4	SW846 8260B
Trichloroethene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**1.2**	**SW846 8260B**
1,1,2-Trichloroethane	10	9.9	ug/L	99		SW846 8260B
	10	10	ug/L	100	0.75	SW846 8260B
Benzene	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**2.9**	**SW846 8260B**
Tetrachloroethene	10	10	ug/L	102		SW846 8260B
	10	10	ug/L	104	2.1	SW846 8260B
Toluene	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**0.10**	**SW846 8260B**
Ethylbenzene	10	11	ug/L	106		SW846 8260B
	10	11	ug/L	105	0.45	SW846 8260B
Xylenes (total)	30	32	ug/L	105		SW846 8260B
	30	31	ug/L	105	0.36	SW846 8260B
cis-1,2-Dichloroethene	10	9.7	ug/L	97		SW846 8260B
	10	9.7	ug/L	97	0.050	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	92	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	111	(74 - 116)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L6TF81AE-MS **Matrix.....:** WATER
MS Lot-Sample #: A0I100511-002 L6TF81AF-MSD
Date Sampled...: 09/09/10 11:05 **Date Received..:** 09/10/10
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 2500

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Chloroform	94	(83 - 141)			SW846 8260B
	95	(83 - 141)	0.97	(0-30)	SW846 8260B
1,1-Dichloroethene	**89**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**4.1**	**(0-20)**	**SW846 8260B**
Vinyl chloride	77 a	(88 - 126)			SW846 8260B
	79 a	(88 - 126)	2.1	(0-30)	SW846 8260B
Methylene chloride	89	(82 - 115)			SW846 8260B
	90	(82 - 115)	0.11	(0-30)	SW846 8260B
Acetone	101	(45 - 128)			SW846 8260B
	99	(45 - 128)	1.7	(0-30)	SW846 8260B
Carbon tetrachloride	81	(63 - 176)			SW846 8260B
	85	(63 - 176)	4.7	(0-30)	SW846 8260B
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	99	**(62 - 130)**	**1.1**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	98	(86 - 129)			SW846 8260B
	97	(86 - 129)	1.7	(0-30)	SW846 8260B
Benzene	**95**	**(78 - 118)**			**SW846 8260B**
	96	**(78 - 118)**	**1.5**	**(0-20)**	**SW846 8260B**
Tetrachloroethene	98	(85 - 121)			SW846 8260B
	97	(85 - 121)	1.2	(0-30)	SW846 8260B
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	99	**(70 - 119)**	**0.59**	**(0-20)**	**SW846 8260B**
Ethylbenzene	104	(86 - 132)			SW846 8260B
	104	(86 - 132)	0.34	(0-30)	SW846 8260B
Xylenes (total)	103	(89 - 121)			SW846 8260B
	105	(89 - 121)	1.6	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	92	(87 - 114)			SW846 8260B
	89	(87 - 114)	0.70	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	98	(61 - 128)
Toluene-d8	104	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	108	(74 - 116)
	110	(74 - 116)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L6TF81AE-MS **Matrix.....:** WATER
MS Lot-Sample #: A0I100511-002 L6TF81AF-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L6TF81AE-MS **Matrix.....:** WATER
MS Lot-Sample #: A0I100511-002 L6TF81AF-MSD
Date Sampled...: 09/09/10 11:05 **Date Received..:** 09/10/10
Prep Date.....: 09/16/10 **Analysis Date..:** 09/16/10
Prep Batch #...: 0259329
Dilution Factor: 2500

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Chloroform	ND	25000	23000	ug/L	94		SW846 8260B
	ND	25000	24000	ug/L	95	0.97	SW846 8260B
1,1-Dichloroethene	**1400**	**25000**	**24000**	**ug/L**	**89**		**SW846 8260B**
	1400	**25000**	**25000**	**ug/L**	**93**	**4.1**	**SW846 8260B**
Vinyl chloride	1100	25000	20000	ug/L	77 a		SW846 8260B
	1100	25000	21000	ug/L	79 a	2.1	SW846 8260B
Methylene chloride	5500	25000	28000	ug/L	89		SW846 8260B
	5500	25000	28000	ug/L	90	0.11	SW846 8260B
Acetone	ND	50000	50000	ug/L	101		SW846 8260B
	ND	50000	50000	ug/L	99	1.7	SW846 8260B
Carbon tetrachloride	ND	25000	20000	ug/L	81		SW846 8260B
	ND	25000	21000	ug/L	85	4.7	SW846 8260B
Trichloroethene	**ND**	**25000**	**24000**	**ug/L**	**98**		**SW846 8260B**
	ND	**25000**	**25000**	**ug/L**	**99**	**1.1**	**SW846 8260B**
1,1,2-Trichloroethane	ND	25000	25000	ug/L	98		SW846 8260B
	ND	25000	24000	ug/L	97	1.7	SW846 8260B
Benzene	**ND**	**25000**	**24000**	**ug/L**	**95**		**SW846 8260B**
	ND	**25000**	**24000**	**ug/L**	**96**	**1.5**	**SW846 8260B**
Tetrachloroethene	ND	25000	25000	ug/L	98		SW846 8260B
	ND	25000	24000	ug/L	97	1.2	SW846 8260B
Toluene	**ND**	**25000**	**25000**	**ug/L**	**99**		**SW846 8260B**
	ND	**25000**	**25000**	**ug/L**	**99**	**0.59**	**SW846 8260B**
Ethylbenzene	ND	25000	26000	ug/L	104		SW846 8260B
	ND	25000	26000	ug/L	104	0.34	SW846 8260B
Xylenes (total)	ND	75000	77000	ug/L	103		SW846 8260B
	ND	75000	79000	ug/L	105	1.6	SW846 8260B
cis-1,2-Dichloroethene	58000	25000	81000	ug/L	92		SW846 8260B
	58000	25000	81000	ug/L	89	0.70	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	98	(61 - 128)
Toluene-d8	104	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	108	(74 - 116)
	110	(74 - 116)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0I100466 **Work Order #...:** L6TF81AE-MS **Matrix.....:** WATER
MS Lot-Sample #: A0I100511-002 L6TF81AF-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: RBC Manufacturing Corp	Client Project Manager: Lee Bergmann	Site Contact: Same	Lab Contact:	COC No:
Address: 100 E. Randolph St	Telephone: 7156758104	Telephone:	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbe			
Phone: 7156758104		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: EW-1	Method of Shipment/Carrier:			
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:			Sample Specific Notes / Special Instructions:
W1090910-490-1	9/9/10	9:10A		✓						✓					N	G	Influent
W1090910-490-2		9:10A		✓						✓					N	G	↓
W1090910-490-3		9:10A		✓						✓					N	G	
W1090910-491-1		9:09A		✓						✓					N	G	Effluent
W1090910-491-2		9:09A		✓						✓					N	G	↓
W1090910-491-3		9:05A		✓						✓					N	G	

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lee Bergmann	RBC Manuf. Corp	09.09.10 9:50am			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TESTAMERICA	10/9/2010 0930

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Lot Number: A0I100466

Client RBC MANUFACTURING Project EW-1 By: [signature] (Signature)

Cooler Received on 10 Sept 2010 Opened on 10 Sept 2010

FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ____

TestAmerica Cooler # ____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other ____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable ____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? ____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other PLASTIC BAG
6. Cooler temperature upon receipt 0.1 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☐ No ☒
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM DDH Date 9-10-10 by NS via Verbal ☒ Voice Mail ☐ Other ☐

Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:

TRIP BLANK 1X40ml REC'D, NOT ON COC... Will log.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 051010-HNO_3; *Sulfuric Acid Lot#* 051010-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH*; *Hydrochloric Acid Lot#* 092006-*HCl*; *Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? ____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Chuck Ahrens, CRA

REF. NO.: 003978-10

FROM: Ruth Mickle/sb/6

DATE: October 4, 2010

CC: Analytical Data File

RE: Data Quality Assessment
September 9, 2010 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin

The following details a data quality assessment for water samples collected September 9, 2010, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W100909MV-490-1,2,3 (Influent) and W100909MV-491-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs).[1] The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP).[2]

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank was free of target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. With the exception of acetone, the trip blank was free of target analytes. Since there were no associated acetone detections, no data qualification was required based on trip blank data.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

January 27, 2011

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Erin Endsley
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, WI 54702-4001

Dear Ms. Bianchin and Ms. Endsley:

Re: Fourth Quarter 2010 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this fourth quarter 2010 report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at RBC Manufacturing Inc. (formerly Marathon Electric) on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river.

Fourth quarter 2010 samples were collected on November 17, 2010, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	8.9	3.8	41,000
cis-1,2-dichloroethene	0.48J	0.23J	none
chloroform	<1.0	2.1	29,000
acetone	1.8J	<10	none

Notes:

J - estimated value, below the method reporting limit.
Units: µg/L.

CONESTOGA-ROVERS
& ASSOCIATES

January 27, 2011 Reference No. 003978-10

The acetone detection is suspect. Historically, acetone has not been associated with the Site contaminants and it is a common laboratory artifact.

EW1 operated continuously during the fourth quarter of 2010 except for 32 minutes on October 7 to clean the filter screen and from December 28th through the 31st due to pump failure. From October 1, 2010, through December 31, 2010, the pump operated at an average flow rate of 606 gpm. Approximately 80,000,000 gallons of water were treated by EW1 in the fourth quarter of 2010.

During routine inspection on January 4, 2011, it was discovered that the EW1 pump had failed. After troubleshooting, the pump was removed and was found to have a broken line shaft. The pump was repaired and reinstalled on January 26, 2011. While the pump was out of the well, RBC used the opportunity to have the well rehabilitated. Rehabilitation included wire-brushing the screen, acid treating, and disinfection. Groundwater containing the treatment chemicals was pumped to a storage container and pH balanced prior to discharging, with City of Wausau approval, to the sanitary sewer. A total of 12,000 gallons was discharged to the sewer.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/sb/11
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

☆ EW-1 well rehab completed January 2011

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. EW-1
EW-1

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
L9839	A0K180548-001	W1111710-492-1,2,3
L984D	A0K180548-002	W1111710-493-1,2,3
L984E	A0K180548-003	TRIP BLANK

Designee for

Approved for release.
Nathan Pietras
Project Manager
12/6/2010 12:14 PM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

December 06, 2010

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0K180548

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the EW-1 Site. The samples were received November 18, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on December 01, 2010. A summary of QC data for these analyses is included at the back of the report.

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

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.2°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 0335122 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0K180548

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
W1111710-492-1,2,3 11/17/10 10:15 001				
cis-1,2-Dichloroethene	0.48 J	1.0	ug/L	SW846 8260B
Acetone	1.8 J	10	ug/L	SW846 8260B
Trichloroethene	8.9	1.0	ug/L	SW846 8260B
W1111710-493-1,2,3 11/17/10 10:20 002				
cis-1,2-Dichloroethene	0.23 J	1.0	ug/L	SW846 8260B
Chloroform	2.1	1.0	ug/L	SW846 8260B
Trichloroethene	3.8	1.0	ug/L	SW846 8260B
TRIP BLANK 11/17/10 003				
Methylene chloride	0.49 J,B	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0K180548

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0K180548

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L9839	001	W1111710-492-1,2,3	11/17/10	10:15
L984D	002	W1111710-493-1,2,3	11/17/10	10:20
L984E	003	TRIP BLANK	11/17/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Influent

Client Sample ID: W1111710-492-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0K180548-001 **Work Order #...:** L98391AA **Matrix.....:** WG
Date Sampled...: 11/17/10 10:15 **Date Received..:** 11/18/10
Prep Date.....: 12/01/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0335122
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.48 J**	**1.0**	**ug/L**
Acetone	**1.8 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**8.9**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(75 - 121)
1,2-Dichloroethane-d4	104	(63 - 129)
Toluene-d8	91	(74 - 115)
4-Bromofluorobenzene	77	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Effluent

Client Sample ID: W1111710-493-1,2,3

GC/MS Volatiles

Lot-Sample #...: A0K180548-002 **Work Order #...:** L984D1AA **Matrix.....:** WG
Date Sampled...: 11/17/10 10:20 **Date Received..:** 11/18/10
Prep Date.....: 12/01/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0335122
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.23 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**2.1**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.8**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	118	(75 - 121)
1,2-Dichloroethane-d4	105	(63 - 129)
Toluene-d8	92	(74 - 115)
4-Bromofluorobenzene	77	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0K180548-003 **Work Order #...:** L984E1AA **Matrix.....:** WQ
Date Sampled...: 11/17/10 **Date Received..:** 11/18/10
Prep Date.....: 12/01/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0335122
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	**0.49 J,B**	**1.0**	**ug/L**
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	116	(75 - 121)
1,2-Dichloroethane-d4	101	(63 - 129)
Toluene-d8	91	(74 - 115)
4-Bromofluorobenzene	76	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** MANQ31AA **Matrix.....:** WATER
MB Lot-Sample #: A0L010000-122

Prep Date.....: 11/30/10
Analysis Date..: 11/30/10 **Prep Batch #...:** 0335122
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.36 J**	**1.0**	**ug/L**	**SW846 8260B**
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(75 - 121)
1,2-Dichloroethane-d4	103	(63 - 129)
Toluene-d8	94	(74 - 115)
4-Bromofluorobenzene	82	(66 - 117)

NOTE(S):

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

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** MANQ31AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L010000-122 MANQ31AD-LCSD
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335122
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	89	(53 - 127)			SW846 8260B
	85	(53 - 127)	4.8	(0-30)	SW846 8260B
Methylene chloride	99	(66 - 131)			SW846 8260B
	95	(66 - 131)	4.4	(0-30)	SW846 8260B
Acetone	70	(43 - 136)			SW846 8260B
	67	(43 - 136)	4.2	(0-30)	SW846 8260B
1,1-Dichloroethene	**105**	**(78 - 131)**			**SW846 8260B**
	100	**(78 - 131)**	**4.1**	**(0-30)**	**SW846 8260B**
Chloroform	102	(79 - 117)			SW846 8260B
	101	(79 - 117)	0.92	(0-30)	SW846 8260B
Carbon tetrachloride	127	(66 - 128)			SW846 8260B
	123	(66 - 128)	3.1	(0-30)	SW846 8260B
Trichloroethene	**107**	**(76 - 117)**			**SW846 8260B**
	106	**(76 - 117)**	**0.99**	**(0-20)**	**SW846 8260B**
1,1,2-Trichloroethane	96	(80 - 112)			SW846 8260B
	97	(80 - 112)	1.1	(0-30)	SW846 8260B
Benzene	**100**	**(83 - 112)**			**SW846 8260B**
	98	**(83 - 112)**	**1.7**	**(0-30)**	**SW846 8260B**
Tetrachloroethene	102	(79 - 114)			SW846 8260B
	105	(79 - 114)	2.2	(0-30)	SW846 8260B
Toluene	**99**	**(84 - 111)**			**SW846 8260B**
	100	**(84 - 111)**	**1.3**	**(0-30)**	**SW846 8260B**
Ethylbenzene	100	(83 - 112)			SW846 8260B
	99	(83 - 112)	0.65	(0-30)	SW846 8260B
Xylenes (total)	101	(83 - 112)			SW846 8260B
	102	(83 - 112)	0.65	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	105	(80 - 113)			SW846 8260B
	104	(80 - 113)	0.66	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
	102	(75 - 121)
1,2-Dichloroethane-d4	94	(63 - 129)
	94	(63 - 129)
Toluene-d8	102	(74 - 115)
	100	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)
	101	(66 - 117)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** MANQ31AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L010000-122 MANQ31AD-LCSD
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335122
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	10	8.9	ug/L	89		SW846 8260B
	10	8.5	ug/L	85	4.8	SW846 8260B
Methylene chloride	10	9.9	ug/L	99		SW846 8260B
	10	9.5	ug/L	95	4.4	SW846 8260B
Acetone	20	14	ug/L	70		SW846 8260B
	20	13	ug/L	67	4.2	SW846 8260B
1,1-Dichloroethene	**10**	**10**	**ug/L**	**105**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**4.1**	**SW846 8260B**
Chloroform	10	10	ug/L	102		SW846 8260B
	10	10	ug/L	101	0.92	SW846 8260B
Carbon tetrachloride	10	13	ug/L	127		SW846 8260B
	10	12	ug/L	123	3.1	SW846 8260B
Trichloroethene	**10**	**11**	**ug/L**	**107**		**SW846 8260B**
	10	**11**	**ug/L**	**106**	**0.99**	**SW846 8260B**
1,1,2-Trichloroethane	10	9.6	ug/L	96		SW846 8260B
	10	9.7	ug/L	97	1.1	SW846 8260B
Benzene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**9.8**	**ug/L**	**98**	**1.7**	**SW846 8260B**
Tetrachloroethene	10	10	ug/L	102		SW846 8260B
	10	10	ug/L	105	2.2	SW846 8260B
Toluene	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**1.3**	**SW846 8260B**
Ethylbenzene	10	10	ug/L	100		SW846 8260B
	10	9.9	ug/L	99	0.65	SW846 8260B
Xylenes (total)	30	30	ug/L	101		SW846 8260B
	30	31	ug/L	102	0.65	SW846 8260B
cis-1,2-Dichloroethene	10	10	ug/L	105		SW846 8260B
	10	10	ug/L	104	0.66	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
	102	(75 - 121)
1,2-Dichloroethane-d4	94	(63 - 129)
	94	(63 - 129)
Toluene-d8	102	(74 - 115)
	100	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)
	101	(66 - 117)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** L98TC1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K180520-001 L98TC1AD-MSD
Date Sampled...: 11/17/10 09:20 **Date Received..:** 11/18/10
Prep Date.....: 12/01/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0335122
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**109**	**(74 - 135)**			**SW846 8260B**
	87	**(74 - 135)**	**9.9**	**(0-30)**	**SW846 8260B**
Vinyl chloride	93	(49 - 130)			SW846 8260B
	84	(49 - 130)	9.9	(0-30)	SW846 8260B
Methylene chloride	95	(63 - 128)			SW846 8260B
	90	(63 - 128)	5.0	(0-30)	SW846 8260B
Acetone	64	(33 - 145)			SW846 8260B
	61	(33 - 145)	4.3	(0-30)	SW846 8260B
Chloroform	104	(76 - 118)			SW846 8260B
	92	(76 - 118)	7.0	(0-30)	SW846 8260B
Carbon tetrachloride	146 a	(59 - 129)			SW846 8260B
	111	(59 - 129)	12	(0-30)	SW846 8260B
Trichloroethene	**106**	**(66 - 120)**			**SW846 8260B**
	99	**(66 - 120)**	**5.5**	**(0-30)**	**SW846 8260B**
1,1,2-Trichloroethane	88	(75 - 115)			SW846 8260B
	89	(75 - 115)	0.83	(0-30)	SW846 8260B
Benzene	**97**	**(72 - 121)**			**SW846 8260B**
	94	**(72 - 121)**	**3.6**	**(0-30)**	**SW846 8260B**
Tetrachloroethene	105	(70 - 117)			SW846 8260B
	101	(70 - 117)	3.7	(0-30)	SW846 8260B
Toluene	**97**	**(78 - 114)**			**SW846 8260B**
	96	**(78 - 114)**	**1.8**	**(0-30)**	**SW846 8260B**
Ethylbenzene	98	(75 - 116)			SW846 8260B
	97	(75 - 116)	0.99	(0-30)	SW846 8260B
Xylenes (total)	101	(76 - 116)			SW846 8260B
	98	(76 - 116)	3.2	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	106	(70 - 120)			SW846 8260B
	100	(70 - 120)	6.4	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(75 - 121)
	102	(75 - 121)
1,2-Dichloroethane-d4	93	(63 - 129)
	90	(63 - 129)
Toluene-d8	100	(74 - 115)
	97	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)
	100	(66 - 117)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** L98TC1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K180520-001 L98TC1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** L98TC1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K180520-001 L98TC1AD-MSD
Date Sampled...: 11/17/10 09:20 **Date Received..:** 11/18/10
Prep Date.....: 12/01/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0335122
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**12**	**10**	**23**	**ug/L**	**109**		**SW846 8260B**
	12	**10**	**21**	**ug/L**	**87**	**9.9**	**SW846 8260B**
Vinyl chloride	ND	10	9.3	ug/L	93		SW846 8260B
	ND	10	8.4	ug/L	84	9.9	SW846 8260B
Methylene chloride	0.35	10	9.8	ug/L	95		SW846 8260B
	0.35	10	9.4	ug/L	90	5.0	SW846 8260B
Acetone	ND	20	13	ug/L	64		SW846 8260B
	ND	20	12	ug/L	61	4.3	SW846 8260B
Chloroform	6.7	10	17	ug/L	104		SW846 8260B
	6.7	10	16	ug/L	92	7.0	SW846 8260B
Carbon tetrachloride	17	10	32	ug/L	146 a		SW846 8260B
	17	10	29	ug/L	111	12	SW846 8260B
Trichloroethene	**2.4**	**10**	**13**	**ug/L**	**106**		**SW846 8260B**
	2.4	**10**	**12**	**ug/L**	**99**	**5.5**	**SW846 8260B**
1,1,2-Trichloroethane	ND	10	8.8	ug/L	88		SW846 8260B
	ND	10	8.9	ug/L	89	0.83	SW846 8260B
Benzene	**ND**	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	ND	**10**	**9.4**	**ug/L**	**94**	**3.6**	**SW846 8260B**
Tetrachloroethene	0.42	10	11	ug/L	105		SW846 8260B
	0.42	10	10	ug/L	101	3.7	SW846 8260B
Toluene	**ND**	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	ND	**10**	**9.6**	**ug/L**	**96**	**1.8**	**SW846 8260B**
Ethylbenzene	ND	10	9.8	ug/L	98		SW846 8260B
	ND	10	9.7	ug/L	97	0.99	SW846 8260B
Xylenes (total)	ND	30	30	ug/L	101		SW846 8260B
	ND	30	29	ug/L	98	3.2	SW846 8260B
cis-1,2-Dichloroethene	0.24	10	11	ug/L	106		SW846 8260B
	0.24	10	10	ug/L	100	6.4	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(75 - 121)
	102	(75 - 121)
1,2-Dichloroethane-d4	93	(63 - 129)
	90	(63 - 129)
Toluene-d8	100	(74 - 115)
	97	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)
	100	(66 - 117)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A0K180548 **Work Order #...:** L98TC1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K180520-001 L98TC1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

TestAmerica Laboratory location: North Canton, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: RBC Manufacturing	Lee Bergmann	Same		
Address: 200 E Randolph St	Telephone: 715.675.8104	Telephone: Same	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbel			
Phone: 715.675.8104		TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: EW-1	Method of Shipment/Carrier:			
Project Number:	Shipping/Tracking No:			

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:			Sample Specific Notes / Special Instructions:
DI 111710-492-1	11/17/10	10:15A		✓						✓					N	G	Influent
DI 111710-492-2	↓	10:16A		✓						✓					N	G	↓
WI 111710-492-3		10:16A		✓						✓					N	G	
WI 111710-493-1		10:20A		✓						✓					N	G	Effluent
WI 111710-493-2		10:20A		✓						✓					N	G	↓
WI 111710-493-3	↓	10:21A		✓						✓					N	G	

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

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

Special Instructions/QC Requirements & Comments:

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by: Lee Bergmann	RBC Manufacturing	11/17/10 11:00AM			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Alana Acheff	Company: TAL NC	Date/Time: 11/18/10 830

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A0K180548
North Canton Facility

Client RBC Manufacturing Project GW-1 By: [signature] (Signature)
Cooler Received on 11/18/10 Opened on 11/18/10
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ________
TestAmerica Cooler # ________ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other ________

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable ________
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? ________
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☐ Foam ☑ None ☐ Other ________
6. Cooler temperature upon receipt 3.2 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ ________
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM RLM Date 11/18/10 by A via Verbal ☑ Voice Mail ☐ Other ☐
Concerning 14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
rcvd 1x40 trip blank not on COC – will log.
No test listed for analysis will log VOC per 3x40 vials rcvd

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ________ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 051010-HNO_3; *Sulfuric Acid Lot#* 051010-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH*; *Hydrochloric Acid Lot#* 092006-*HCl*; *Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? ________

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Chuck Ahrens, CRA	REF. NO.:	003978-10
FROM:	Ruth Mickle/sb/7	DATE:	December 17, 2010
CC:	Analytical Data File		
RE:	**Data Quality Assessment** **November 17, 2010 Sampling Event** **Wausau Superfund Site - Wausau, Wisconsin**		

The following details a data quality assessment for water samples collected November 17, 2010, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as W111710-492-1,2,3 (Influent) and W111710-493-1,2,3 (Effluent) were analyzed for Site list volatile organic compounds (VOCs)[1]. The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP)[2].

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. With the exception of methylene chloride, the method blank was free of target analytes. Since there were no associated methylene chloride detections, no data qualification was required based on method blank data.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. With the exception of methylene chloride, the trip blank was free of target analytes. Since there were no associated methylene chloride detections, no data qualification was required based on trip blank data.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, St. Paul, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

July 22, 2011

Reference No. 003978-10

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Erin Endsley
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, WI 54702-4001

Dear Ms. Bianchin and Ms. Endsley:

Re: First and Second Quarter 2011 Reports
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this report of the extraction, treatment, and discharge from Extraction Well No. 1 (EW1) at RBC Manufacturing Inc. (formerly Marathon Electric) on the Wausau Water Supply NPL Site. Groundwater is pumped from EW1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river. Due to pump failure and well rehabilitation conducted during the first quarter of 2011, discharge monitoring was not performed. Hence, this report covers the first two quarters of 2011.

Second quarter 2011 samples were collected on May 12, 2011, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	8.6	4.3	41,000
cis-1,2-dichloroethene	0.52J	0.32J	none
chloroform	<1.0	0.20J	29,000

Notes:

J - estimated value, below the method reporting limit.

CONESTOGA-ROVERS
& ASSOCIATES

July 22, 2011 Reference No. 003978-10

Units: µg/L

EW1 has undergone extensive repair and rehabilitation over the previous two quarters. As conveyed in the 2010 Annual Monitoring Report (CRA, March 2011), the EW1 pump failed in late December 2010. Pump replacement and well rehabilitation was conducted through most of January. The new pump was started up on January 26, 2011, but the pumping rate could not be maintained above 500 gallons per minute (gpm). The new pump was removed on March 16, 2011, to televise the well screen and perform double disk surging of the screen. EW1 was pumping for approximately 48 days during the first quarter. The pump was reinstalled and began operating on April 28, 2011. The pumping rate has slowly improved since April and by the end of the second quarter was pumping at a rate exceeding 500 gpm. EW1 operated for 63 days during the second quarter.

Approximately 25,000,000 gallons of water were treated by EW1 in the first quarter and 45,500,000 gallons were treated during the second quarter. Table 1 summarizes the EW-1 pumping volumes and average pumping rates over the first two quarters of 2011.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CEA/sb/13
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

TABLE 1

EXTRACTION WELL EW1 PUMPING RATES
FIRST AND SECOND QUARTER 2011
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

Date	*Elapsed Time (minutes)*	*Meter Reading*	*Total Flow (gallons)*	*Average Flow Rate (gpm)*
1/1/11	30,860	348,850,000	--	
1/26/11	31,605	348,850,000	0	
2/24/11	42,305	363,876,000	15,026,000	
3/16/11	28,360	373,968,000	10,092,000	
4/28/11	40,320	373,968,000	0	
5/26/11	40,416	393,985,000	20,017,000	
6/22/11	38,004	414,272,000	20,287,000	
7/19/11	38,880	425,506,000	17,558,000	
1st Qtr Totals	**129,600**		**25,118,000**	**194**
2nd Qtr Totals	**131,700**		**45,506,000**	**346**

Notes:

Pump failure discovered 1/4/2011. Estimate pump stoppage @ noon on 12/28/2010
Pump back on-line 1/26/2011. Pumping rate less than 400 gpm.
Pump removed 3/16/2011 to televise screen interval and for additional troubleshooting.
Pump reinstalled 4/28/2011 following double disc surge blocking to increase production.

ATTACHMENT A

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Ruth Mickle
Conestoga-Rovers & Associates, Inc.
PROJECT NO. 3978
WAUSAU QUARTERLY

SAMPLE SUMMARY

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	
MJEJQ	A1E130559-001	051211I-01,02,03	Influent
MJEJX	A1E130559-002	051211E-01,02,03	Effluent
MJEJ2	A1E130559-003	TRIP BLANK	

TESTAMERICA LABORATORIES, INC.

Denise D Heckler

Approved for release.
Denise D. Heckler
Project Manager
5/31/2011 12:51 PM

Denise D. Heckler
Project Manager
denise.heckler@testamericainc.com

May 31, 2011

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A1E130559

The following report contains the analytical results for two water samples and one quality control sample submitted to TestAmerica North Canton by Conestoga-Rovers & Associates, Inc. from the WAUSAU QUARTERLY Site, project number 3978. The samples were received May 13, 2011, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Ruth Mickle on May 27, 2011. A summary of QC data for these analyses is included at the back of the report.

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

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.7°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called Quality Control Batches (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a Method Blank (MB), a Laboratory Control Sample (LCS) and, a Matrix Spike/Matrix Spike Duplicate (MS/MSD) pair or a Matrix Spike/Sample Duplicate (MS/DU) pair.
For 600 series/CWA methods, QC samples include a Method Blank (MB), a Laboratory Control Sample (LCS) and, where appropriate, a Matrix Spike (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch, with the exception of poor performing analytes. A list of these analytes is listed below. No corrective action is taken if these analytes do not meet criteria.Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

Poor performers

Method 8270 Water and Solid:	
4-Nitrophenol	3,3' – Dichlorobenzidine
Benzoic Acid	2,4,6 - Tribromophenol
Phenol	2,4-Dinitrophenol
Phenol-d5	Pentachlorophenol
4,6-Dinitro-2-methylphenol	Hexachlorocyclopentadiene (LCG only)
Benzyl Alcohol	4-Chloroaniline
Method 8151 Solid	
Dinoseb	
Method 8260 Water and Solid	
Dichlorodifluoromethane	Hexachlorobutadiene
Trichlorofluoromethane	Naphthalene
Chloroethane	1,2,3-Trichlorobenzene
Acetone	1,2,4-Trichlorobenzene
Bromomethane	2,2-Dichloropropane
Bromoform	Chloromethane

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be ten fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results do not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate or Matrix Spike/Sample Duplicate.

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater. For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225).

Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), DoD ELAP (ADE-1437) USDA Soil Permit (P33-08-00123)

EXECUTIVE SUMMARY - Detection Highlights

A1E130559

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
051211I-01,02,03 05/12/11 08:30 001				
cis-1,2-Dichloroethene	0.52 J	1.0	ug/L	SW846 8260B
Trichloroethene	8.6	1.0	ug/L	SW846 8260B
051211E-01,02,03 05/12/11 08:30 002				
cis-1,2-Dichloroethene	0.32 J	1.0	ug/L	SW846 8260B
Chloroform	0.20 J	1.0	ug/L	SW846 8260B
Trichloroethene	4.3	1.0	ug/L	SW846 8260B
TRIP BLANK 05/12/11 003				
Acetone	5.2 J	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A1E130559

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A1E130559

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MJEJQ	001	051211I-01,02,03	05/12/11	08:30
MJEJX	002	051211E-01,02,03	05/12/11	08:30
MJEJ2	003	TRIP BLANK	05/12/11	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Assoc.,Inc.

Influent

Client Sample ID: 051211I-01,02,03

GC/MS Volatiles

Lot-Sample #...: A1E130559-001 **Work Order #...:** MJEJQ1AA **Matrix.....:** WG
Date Sampled...: 05/12/11 08:30 **Date Received..:** 05/13/11
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.52 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**8.6**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(75 - 121)
1,2-Dichloroethane-d4	103	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	91	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Assoc.,Inc. Effluent

Client Sample ID: 051211E-01,02,03

GC/MS Volatiles

Lot-Sample #...: A1E130559-002 **Work Order #...:** MJEJX1AA **Matrix.....:** WG
Date Sampled...: 05/12/11 08:30 **Date Received..:** 05/13/11
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	**0.32 J**	**1.0**	**ug/L**
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	**0.20 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**4.3**	**1.0**	**ug/L**
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
1,2-Dichloroethane-d4	102	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	88	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Conestoga-Rovers & Assoc.,Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A1E130559-003 **Work Order #...:** MJEJ21AA **Matrix.....:** WQ
Date Sampled...: 05/12/11 **Date Received..:** 05/13/11
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,2-Dichloroethene	ND	1.0	ug/L
Acetone	**5.2 J**	**10**	**ug/L**
Benzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	90	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJN0C1AA **Matrix.....:** WATER
MB Lot-Sample #: A1E230000-168

Prep Date.....: 05/23/11
Analysis Date..: 05/23/11 **Prep Batch #...:** 1143168
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	91	(66 - 117)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJN0C1AC **Matrix.....:** WATER
LCS Lot-Sample#: A1E230000-168
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**93**	**(53 - 127)**	**SW846 8260B**
Methylene chloride	**106**	**(66 - 131)**	**SW846 8260B**
Acetone	95	(43 - 136)	SW846 8260B
1,1-Dichloroethene	**105**	**(78 - 131)**	**SW846 8260B**
Chloroform	**105**	**(79 - 117)**	**SW846 8260B**
Carbon tetrachloride	**101**	**(66 - 128)**	**SW846 8260B**
Trichloroethene	**99**	**(76 - 117)**	**SW846 8260B**
1,1,2-Trichloroethane	**106**	**(80 - 112)**	**SW846 8260B**
Benzene	**102**	**(83 - 112)**	**SW846 8260B**
Tetrachloroethene	**101**	**(79 - 114)**	**SW846 8260B**
Toluene	**107**	**(84 - 111)**	**SW846 8260B**
Ethylbenzene	**103**	**(83 - 112)**	**SW846 8260B**
Xylenes (total)	**104**	**(83 - 112)**	**SW846 8260B**
cis-1,2-Dichloroethene	**99**	**(80 - 113)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	98	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJN0C1AC **Matrix.....:** WATER
LCS Lot-Sample#: A1E230000-168
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	10	9.3	**ug/L**	93	**SW846 8260B**
Methylene chloride	10	11	**ug/L**	106	**SW846 8260B**
Acetone	20	19	ug/L	95	SW846 8260B
1,1-Dichloroethene	10	10	**ug/L**	105	**SW846 8260B**
Chloroform	10	11	**ug/L**	105	**SW846 8260B**
Carbon tetrachloride	10	10	**ug/L**	101	**SW846 8260B**
Trichloroethene	10	9.9	**ug/L**	99	**SW846 8260B**
1,1,2-Trichloroethane	10	11	**ug/L**	106	**SW846 8260B**
Benzene	10	10	**ug/L**	102	**SW846 8260B**
Tetrachloroethene	10	10	**ug/L**	101	**SW846 8260B**
Toluene	10	11	**ug/L**	107	**SW846 8260B**
Ethylbenzene	10	10	**ug/L**	103	**SW846 8260B**
Xylenes (total)	30	31	**ug/L**	104	**SW846 8260B**
cis-1,2-Dichloroethene	10	9.9	**ug/L**	99	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	98	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJFFJ1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1E140430-009 MJFFJ1AD-MSD
Date Sampled...: 05/12/11 10:15 **Date Received..:** 05/14/11
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**106**	**(74 - 135)**			**SW846 8260B**
	104	**(74 - 135)**	**1.8**	**(0-30)**	**SW846 8260B**
Vinyl chloride	**96**	**(49 - 130)**			**SW846 8260B**
	94	**(49 - 130)**	**2.6**	**(0-30)**	**SW846 8260B**
Methylene chloride	**98**	**(63 - 128)**			**SW846 8260B**
	95	**(63 - 128)**	**3.6**	**(0-30)**	**SW846 8260B**
Acetone	101	(33 - 145)			SW846 8260B
	100	(33 - 145)	0.77	(0-30)	SW846 8260B
Chloroform	**106**	**(76 - 118)**			**SW846 8260B**
	101	**(76 - 118)**	**4.3**	**(0-30)**	**SW846 8260B**
Carbon tetrachloride	**99**	**(59 - 129)**			**SW846 8260B**
	96	**(59 - 129)**	**3.5**	**(0-30)**	**SW846 8260B**
Trichloroethene	**101**	**(66 - 120)**			**SW846 8260B**
	99	**(66 - 120)**	**2.2**	**(0-30)**	**SW846 8260B**
1,1,2-Trichloroethane	**107**	**(75 - 115)**			**SW846 8260B**
	105	**(75 - 115)**	**1.2**	**(0-30)**	**SW846 8260B**
Benzene	**102**	**(72 - 121)**			**SW846 8260B**
	99	**(72 - 121)**	**2.8**	**(0-30)**	**SW846 8260B**
Tetrachloroethene	**99**	**(70 - 117)**			**SW846 8260B**
	98	**(70 - 117)**	**0.49**	**(0-30)**	**SW846 8260B**
Toluene	**107**	**(78 - 114)**			**SW846 8260B**
	105	**(78 - 114)**	**2.6**	**(0-30)**	**SW846 8260B**
Ethylbenzene	**103**	**(75 - 116)**			**SW846 8260B**
	101	**(75 - 116)**	**1.9**	**(0-30)**	**SW846 8260B**
Xylenes (total)	**105**	**(76 - 116)**			**SW846 8260B**
	103	**(76 - 116)**	**1.5**	**(0-30)**	**SW846 8260B**
cis-1,2-Dichloroethene	**101**	**(70 - 120)**			**SW846 8260B**
	97	**(70 - 120)**	**4.2**	**(0-30)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(75 - 121)
	90	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
	92	(63 - 129)
Toluene-d8	100	(74 - 115)
	98	(74 - 115)
4-Bromofluorobenzene	109	(66 - 117)
	107	(66 - 117)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJFFJ1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1E140430-009 MJFFJ1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJFFJ1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1E140430-009 MJFFJ1AD-MSD
Date Sampled...: 05/12/11 10:15 **Date Received..:** 05/14/11
Prep Date.....: 05/23/11 **Analysis Date..:** 05/23/11
Prep Batch #...: 1143168
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**104**	**1.8**	**SW846 8260B**
Vinyl chloride	**ND**	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	ND	**10**	**9.4**	**ug/L**	**94**	**2.6**	**SW846 8260B**
Methylene chloride	**ND**	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	ND	**10**	**9.5**	**ug/L**	**95**	**3.6**	**SW846 8260B**
Acetone	ND	20	20	ug/L	101		SW846 8260B
	ND	20	20	ug/L	100	0.77	SW846 8260B
Chloroform	**ND**	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**101**	**4.3**	**SW846 8260B**
Carbon tetrachloride	**ND**	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	ND	**10**	**9.6**	**ug/L**	**96**	**3.5**	**SW846 8260B**
Trichloroethene	**0.37**	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	0.37	**10**	**10**	**ug/L**	**99**	**2.2**	**SW846 8260B**
1,1,2-Trichloroethane	**ND**	**10**	**11**	**ug/L**	**107**		**SW846 8260B**
	ND	**10**	**11**	**ug/L**	**105**	**1.2**	**SW846 8260B**
Benzene	**ND**	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	ND	**10**	**9.9**	**ug/L**	**99**	**2.8**	**SW846 8260B**
Tetrachloroethene	**ND**	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	ND	**10**	**9.8**	**ug/L**	**98**	**0.49**	**SW846 8260B**
Toluene	**ND**	**10**	**11**	**ug/L**	**107**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**105**	**2.6**	**SW846 8260B**
Ethylbenzene	**ND**	**10**	**10**	**ug/L**	**103**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**101**	**1.9**	**SW846 8260B**
Xylenes (total)	**ND**	**30**	**31**	**ug/L**	**105**		**SW846 8260B**
	ND	**30**	**31**	**ug/L**	**103**	**1.5**	**SW846 8260B**
cis-1,2-Dichloroethene	**ND**	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	ND	**10**	**9.7**	**ug/L**	**97**	**4.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(75 - 121)
	90	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
	92	(63 - 129)
Toluene-d8	100	(74 - 115)
	98	(74 - 115)
4-Bromofluorobenzene	109	(66 - 117)
	107	(66 - 117)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A1E130559 **Work Order #...:** MJFFJ1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1E140430-009 MJFFJ1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

TestAmerica

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TestAmerica Laboratory location: North Canton, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: RBC Manufacturing Corp	Lee Bergmann	Same		015606
Address: 100 E. Randolph St	Telephone: 715 675 8104	Telephone: Same	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbel			
Phone: 715-675-3311		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	
Project Name: EWI - QTR1	Method of Shipment/Carrier: Fed Ex			
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Sample Specific Notes / Special Instructions:
051211I-01	5/12/11	8:30a		✓						✓					Influent
051211I-02				✓						✓					↓
051211I-03				✓						✓					
051211E-01				✓						✓					Effluent
051211E-02				✓						✓					↓
051211E-03	↓	↓		✓						✓					

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ken Bergmann	RBC Manufacturing	05/12/11 9:30Am			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Doug Burns	TA	5/13/11 9:45

TAL 0018-1 (04/10)

Groundwater Monitoring Program
Marathon Electric Mfg - Wausau, WI
Sampling Record

Well Details

Well Depth (Ft BGS):	140
Well Diameter (Inches):	16
Well Area (Sq Ft):	1.41

Sampling Details -- Well #EW1

Sample Taken By:	Lee Bergmann
Weather:	Overcast, 55 deg F
Operating PSI:	8.5
Head (feet):	11.25
Previous Totalizer Reading:	373,968
Previous Totalizer Date/Time:	4/26/11 1:00pm
Present Totalizer Reading:	383,717
Present Totalizer Date/Time:	5/12/11 8:34am

Influent

Sample Location:	Spigot in pump house
Sample Volume:	3-40 ml vials w/HCl
Sample Description:	051211I-01
	051211I-02
	051211I-03

Effluent

Sample Location:	End of spill way
Sample Volume:	3-40 ml vials w/HCl
Sample Description:	051211E-01
	051211E-02
	051211E-03

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 410130559
North Canton Facility

Client RBC Manufacturi Project EWI-Qtr 1 By: (Signature)
Cooler Received on 5/13/11 Opened on 5/13/11
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other
TestAmerica Cooler # Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other
1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
If YES, Quantity Quantity Unsalvageable
Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
Were custody seals on the bottle(s)? Yes ☐ No ☒
If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other
6. Cooler temperature upon receipt 2.7 °C See back of form for multiple coolers/temps ☐
METHOD: IR ☒ Other ☐
COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐
Contacted PM ALM Date 5/13/11 by JB via Verbal ☐ Voice Mail ☒ Other ☐
Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
Rec'd 1 X 40 ml trip blank not on COC — will log

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)?

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

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END OF REPORT

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO: Chuck Ahrens, CRA

REF. NO.: 003978-10

FROM: Ruth Mickle/sb/10

DATE: June 7, 2011

CC: Analytical Data File

RE: **Data Quality Assessment**
May 12, 2011 Sampling Event
Wausau Superfund Site - Wausau, Wisconsin

The following details a data quality assessment for water samples collected May 12, 2011, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as 051211I-01,02,03 (Influent) and 051211E-01,02,03 (Effluent) were analyzed for Site list volatile organic compounds (VOCs)[1]. The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP)[2].

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank was free of target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. With the exception of acetone, the trip blank was free of target analytes. Since there were no associated acetone detections, no data qualification was required based on trip blank data.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.

Endsley, Erin A - DNR

From: Ahrens, Chuck [cahrens@craworld.com]
Sent: Tuesday, October 18, 2011 4:21 PM
To: Bianchin.Sheri; Endsley, Erin A - DNR
Cc: Lee Bergmann; Dave Erickson; Project Email Hold
Subject: Wausau Water Supply EW-1 Third Quarter 2011 Monitoring Report ~COR-003978-10~
Follow Up Flag: Follow up
Due By: Monday, October 24, 2011 11:00 AM
Flag Status: Red
Attachments: 003978BIAN-014-101811.pdf

Ms. Bianchin and Ms. Endsley,
The third quarter 2011 monitoring report for the extraction and treatment of groundwater at EW-1, Wausau Water Supply NPL Site, is attached. This report is being provided in electronic format. If you prefer a hard copy, please let me know.
Please contact me if you have any questions.
Thank you,
Chuck

Charles Ahrens, P.G.
Conestoga-Rovers & Associates (CRA)
1801 Old Highway 8 NW, Suite 114
St Paul, MN 55112

Direct: 651.639.0439 ext. 310
Main: 651.639.0913
Fax: 651.639.0923
Email: cahrens@craworld.com
www.craworld.com

Perform every task the safe way, the right way, every time!

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

October 18, 2011

Reference No. 003978-10
VIA EMAIL ONLY (PDF)

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Erin Endsley
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, WI 54702-4001

Dear Ms. Bianchin and Ms. Endsley:

Re: Third Quarter 2011 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this report of the extraction, treatment, and discharge of groundwater from Extraction Well No. 1 (EW-1) at RBC Manufacturing Inc. (formerly Marathon Electric) on the Wausau Water Supply NPL Site. Groundwater is pumped from EW-1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river. This report covers the third quarter of 2011.

Third quarter 2011 samples were collected on August 3, 2011, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. A summary of the detected VOC concentrations is reported below. As shown, concentrations are well below the surface water discharge limits for EW1.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	8.4	4.2	41,000
cis-1,2-dichloroethene	0.52J	<1.0	none
chloroform	<1.0	0.18J	29,000

Notes:
J - estimated value, below the method reporting limit.
Units: µg/L

Although acetone was reported as a detected compound in both the influent and effluent samples, it was also detected in the Trip Blank and was, therefore, qualified as "non detect".

As explained in the previous quarterly report, extensive repair and rehabilitation was performed on EW-1 during the first two quarters of 2011. The well has operated continuously since April 28, 2011, and the pumping rate continued to increase steadily through the end of the third quarter. The average pumping rate for the month of September was greater than 600 gpm.

Approximately 67,000,000 gallons of water were treated by EW1 during the third quarter. Table 1 summarizes the EW-1 pumping volumes and average pumping rates over the third quarter of 2011.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CA/sb/14
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

TABLE 1

EXTRACTION WELL EW-1 PUMPING RATES
THIRD QUARTER 2011
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

Date	*Elapsed Time (minutes)*	*Meter Reading*	*Total Flow (gallons)*	*Average Flow Rate (gpm)*
06/22/11		414,272,000		
07/19/11	27,360	426,806,000	8,824,560	323
08/03/11	21,378	436,681,000	9,875,000	462
08/29/11	37,423	456,975,000	20,294,000	542
09/30/11	46,238	484,873,000	27,898,000	603
3rd Qtr Totals	**132,399**		**66,891,560**	**505**

Notes:

EW-1 operated continuously through the third quarter of 2011.
The total flow value shown for the period of 6/22/11 through 7/19/11 is prorated to represent the number of gallons pumped from 7/1/11 through 7/19/11.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-2551-1
Client Project/Site: 3978, Wausau

For:
Conestoga-Rovers & Associates, Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
08/19/2011 04:30:12 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

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

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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit (Dioxin)
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or method detection limit if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-2551-1

Laboratory: TestAmerica North Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 3978, Wausau

Report Number: 240-2551-1

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 North 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 08/04/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.0 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 080311-01,02,03 EFF (240-2551-1), 080311-04,05,06 INF (240-2551-2) and TRIP BLANK (240-2551-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/12/2011.

Trichloroethene was detected in method blank MB 240-11831/11 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 "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-2551-1	080311-01,02,03 EFF	Water	08/03/11 11:14	08/04/11 08:00
240-2551-2	080311-04,05,06 INF	Water	08/03/11 11:20	08/04/11 08:00
240-2551-3	TRIP BLANK	Water	08/03/11 00:00	08/04/11 08:00

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Client Sample ID: 080311-01,02,03 EFF — Lab Sample ID: 240-2551-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	J	10	1.1	ug/L	1		8260B	Total/NA
Chloroform	0.18	J	1.0	0.16	ug/L	1		8260B	Total/NA
Trichloroethene	4.2	B	1.0	0.17	ug/L	1		8260B	Total/NA

Client Sample ID: 080311-04,05,06 INF — Lab Sample ID: 240-2551-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J	10	1.1	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.52	J	1.0	0.17	ug/L	1		8260B	Total/NA
Trichloroethene	8.4	B	1.0	0.17	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-2551-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J	10	1.1	ug/L	1		8260B	Total/NA
Trichloroethene	0.21	J B	1.0	0.17	ug/L	1		8260B	Total/NA

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Client Sample ID: 080311-01,02,03 EFF
Date Collected: 08/03/11 11:14
Date Received: 08/04/11 08:00

Lab Sample ID: 240-2551-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/12/11 22:38	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/12/11 22:38	1
Acetone	**2.6**	**J**	10	1.1	ug/L			08/12/11 22:38	1
Benzene	1.0	U	1.0	0.13	ug/L			08/12/11 22:38	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/12/11 22:38	1
Chloroform	**0.18**	**J**	1.0	0.16	ug/L			08/12/11 22:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/12/11 22:38	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/12/11 22:38	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/12/11 22:38	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/12/11 22:38	1
Toluene	1.0	U	1.0	0.13	ug/L			08/12/11 22:38	1
Trichloroethene	**4.2**	**B**	1.0	0.17	ug/L			08/12/11 22:38	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/12/11 22:38	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			08/12/11 22:38	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*63 - 129*		*08/12/11 22:38*	*1*
4-Bromofluorobenzene (Surr)	*100*		*66 - 117*		*08/12/11 22:38*	*1*
Toluene-d8 (Surr)	*100*		*74 - 115*		*08/12/11 22:38*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*08/12/11 22:38*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Client Sample ID: 080311-04,05,06 INF
Date Collected: 08/03/11 11:20
Date Received: 08/04/11 08:00

Lab Sample ID: 240-2551-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/12/11 22:59	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/12/11 22:59	1
Acetone	**2.5**	**J**	10	1.1	ug/L			08/12/11 22:59	1
Benzene	1.0	U	1.0	0.13	ug/L			08/12/11 22:59	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/12/11 22:59	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/12/11 22:59	1
cis-1,2-Dichloroethene	**0.52**	**J**	1.0	0.17	ug/L			08/12/11 22:59	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/12/11 22:59	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/12/11 22:59	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/12/11 22:59	1
Toluene	1.0	U	1.0	0.13	ug/L			08/12/11 22:59	1
Trichloroethene	**8.4**	**B**	1.0	0.17	ug/L			08/12/11 22:59	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/12/11 22:59	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			08/12/11 22:59	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*08/12/11 22:59*	*1*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*		*08/12/11 22:59*	*1*
Toluene-d8 (Surr)	*100*		*74 - 115*		*08/12/11 22:59*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 121*		*08/12/11 22:59*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Client Sample ID: TRIP BLANK
Date Collected: 08/03/11 00:00
Date Received: 08/04/11 08:00

Lab Sample ID: 240-2551-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/12/11 23:20	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/12/11 23:20	1
Acetone	**1.1**	**J**	10	1.1	ug/L			08/12/11 23:20	1
Benzene	1.0	U	1.0	0.13	ug/L			08/12/11 23:20	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/12/11 23:20	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/12/11 23:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/12/11 23:20	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/12/11 23:20	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/12/11 23:20	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/12/11 23:20	1
Toluene	1.0	U	1.0	0.13	ug/L			08/12/11 23:20	1
Trichloroethene	**0.21**	**J B**	1.0	0.17	ug/L			08/12/11 23:20	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/12/11 23:20	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			08/12/11 23:20	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*		*08/12/11 23:20*	*1*
4-Bromofluorobenzene (Surr)	*100*		*66 - 117*		*08/12/11 23:20*	*1*
Toluene-d8 (Surr)	*100*		*74 - 115*		*08/12/11 23:20*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 121*		*08/12/11 23:20*	*1*

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-117)	(74-115)	(75-121)
240-2551-1	080311-01,02,03 EFF	91	100	100	95
240-2551-2	080311-04,05,06 INF	95	102	100	96
240-2551-3	TRIP BLANK	94	100	100	96
LCS 240-11831/9	Lab Control Sample	96	106	100	94
MB 240-11831/11	Method Blank	91	104	100	95

Surrogate Legend

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

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

Lab Sample ID: MB 240-11831/11
Matrix: Water
Analysis Batch: 11831

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/12/11 18:41	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			08/12/11 18:41	1
Acetone	10	U	10	1.1	ug/L			08/12/11 18:41	1
Benzene	1.0	U	1.0	0.13	ug/L			08/12/11 18:41	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			08/12/11 18:41	1
Chloroform	1.0	U	1.0	0.16	ug/L			08/12/11 18:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			08/12/11 18:41	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/12/11 18:41	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			08/12/11 18:41	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			08/12/11 18:41	1
Toluene	1.0	U	1.0	0.13	ug/L			08/12/11 18:41	1
Trichloroethene	0.202	J	1.0	0.17	ug/L			08/12/11 18:41	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			08/12/11 18:41	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			08/12/11 18:41	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*63 - 129*		*08/12/11 18:41*	*1*
4-Bromofluorobenzene (Surr)	*104*		*66 - 117*		*08/12/11 18:41*	*1*
Toluene-d8 (Surr)	*100*		*74 - 115*		*08/12/11 18:41*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*08/12/11 18:41*	*1*

Lab Sample ID: LCS 240-11831/9
Matrix: Water
Analysis Batch: 11831

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 112
1,1-Dichloroethene	10.0	10.9		ug/L		109	78 - 131
Acetone	20.0	20.4		ug/L		102	43 - 136
Benzene	10.0	9.98		ug/L		100	83 - 112
Carbon tetrachloride	10.0	11.0		ug/L		110	66 - 128
Chloroform	10.0	10.0		ug/L		100	79 - 117
cis-1,2-Dichloroethene	10.0	9.81		ug/L		98	80 - 113
Ethylbenzene	10.0	10.5		ug/L		105	83 - 112
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	83 - 113
Methylene Chloride	10.0	9.46		ug/L		95	66 - 131
o-Xylene	10.0	10.2		ug/L		102	83 - 113
Tetrachloroethene	10.0	10.4		ug/L		104	79 - 114
Toluene	10.0	10.2		ug/L		102	84 - 111
Trichloroethene	10.0	9.47		ug/L		95	76 - 117
Vinyl chloride	10.0	9.87		ug/L		99	53 - 127

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*
4-Bromofluorobenzene (Surr)	*106*		*66 - 117*
Toluene-d8 (Surr)	*100*		*74 - 115*
Dibromofluoromethane (Surr)	*94*		*75 - 121*

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

GC/MS VOA

Analysis Batch: 11831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-11831/9	Lab Control Sample	Total/NA	Water	8260B	
MB 240-11831/11	Method Blank	Total/NA	Water	8260B	
240-2551-1	080311-01,02,03 EFF	Total/NA	Water	8260B	
240-2551-2	080311-04,05,06 INF	Total/NA	Water	8260B	
240-2551-3	TRIP BLANK	Total/NA	Water	8260B	

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Client Sample ID: 080311-01,02,03 EFF — **Lab Sample ID: 240-2551-1**
Date Collected: 08/03/11 11:14 — **Matrix: Water**
Date Received: 08/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	11831	08/12/11 22:38	RQ	TAL NC

Client Sample ID: 080311-04,05,06 INF — **Lab Sample ID: 240-2551-2**
Date Collected: 08/03/11 11:20 — **Matrix: Water**
Date Received: 08/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	11831	08/12/11 22:59	RQ	TAL NC

Client Sample ID: TRIP BLANK — **Lab Sample ID: 240-2551-3**
Date Collected: 08/03/11 00:00 — **Matrix: Water**
Date Received: 08/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	11831	08/12/11 23:20	RQ	TAL NC

Laboratory References:
TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-2551-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	ACLASS	DoD ELAP		ADE-1437
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	Georgia EPD	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio	OVAP	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	USDA		P330-08-00123
TestAmerica North Canton	West Virginia	West Virginia DEP	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton, OH.

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: RBC Manufacturing Corp.	Client Project Manager: Lee Bergmann	Site Contact: Same	Lab Contact:	COC No: 027743
Address: 100 E. Randolph St.	Telephone: 715 218 7486	Telephone:	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbeloit.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 715 218 7486		TAT if different from below ____		Walk-in client: ☐
Project Name: EW-1	Method of Shipment/Carrier: fed ex	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab pickup: ☐
Project Number:	Shipping/Tracking No:			Lab sampling: ☐
PO #				Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C/Grab G	VOC	Sample Specific Notes / Special Instructions:
080311-01 EFF	8.3.11	11:14A		✓						✓							✓	
080311-02 EFF		11:14A		✓						✓							✓	
080311-03 EFF		11:15A		✓						✓							✓	
080311-04 INF		11:20A		✓						✓							✓	
080311-05 INF		11:20A		✓						✓							✓	
080311-06 INF		11:21A		✓						✓							✓	

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lee Bergmann	RBC Manuf. Corp.	08/03/11 11:45AM			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	8/4/11 800

TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 42551
North Canton Facility

Client RBC Project _____ By: _____
Cooler Received on 8-4-11 Opened on 8-4-11 (Signature)
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 3.0 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐
    Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
    Concerning _____

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14. CHAIN OF CUSTODY

The following discrepancies occurred:
1x40 trip blank not on COC. only sent 1x40 voc for each sample.

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-2551-1

Login Number: 2551
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Chuck Ahrens, CRA	REF. NO.:	003978-10
FROM:	Ruth Mickle/sb/11	DATE:	September 6, 2011 **revised**
CC:	Analytical Data File		
RE:	**Data Quality Assessment** **August 3, 2011 Sampling Event** **Wausau Superfund Site - Wausau, Wisconsin**		

The following details a data quality assessment for water samples collected August 3, 2011, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as 08031I-01,02,03 (Effluent) and 080311-04,05,06 (Influent) were analyzed for Site list volatile organic compounds (VOCs)[1]. The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP)[2].

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses.

On the basis of the sample collection date on the chain-of-custody form and the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria.

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. With the exception of trichloroethene, the method blank was free of target analytes. Since the associated trichloroethene detections were greater than the five times acceptance criteria, no data qualification was required based on method blank data.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded trichloroethene (0.21 ug/l) and acetone (1.1 ug/l) detections. The associated trichloroethene detections were within acceptance criteria and no data qualification was required. The associated acetone data for samples 08031I-01,02,03 and 080311-04,05,06 should be qualified as nondetect (10U) based on the (acetone) trip blank detection.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted.

Endsley, Erin A - DNR

From: Ahrens, Chuck [cahrens@craworld.com]
Sent: Tuesday, January 10, 2012 11:18 AM
To: Endsley, Erin A - DNR; Bianchin.Sheri
Cc: Project Email Hold
Subject: Quarterly Report EW-1 Wausau Water Supply NPL Site ~COR-003978-10~
Follow Up Flag: Follow up
Flag Status: Red
Attachments: 003978BIAN-015-011012.pdf

Ms. Bianchin and Ms. Endsley,
The Fourth Quarter 2011 Monitoring Report for the extraction and treatment of groundwater at EW-1, Wausau Water Supply NPL Site, is attached. This report is being provided in electronic format. If you prefer a hard copy, please let me know.

Please contact me if you have any questions.
Thank you,
Chuck

Charles Ahrens, P.G.
Conestoga-Rovers & Associates (CRA)
1801 Old Highway 8 NW, Suite 114
St Paul, MN 55112

Direct: 651.639.0439 ext. 310
Main: 651.639.0913
Fax: 651.639.0923
Email: cahrens@craworld.com
www.craworld.com
Perform every task the safe way, the right way, every time!

CONESTOGA-ROVERS
& ASSOCIATES

1801 Old Highway 8 Northwest, Suite 114, Minnesota 55112
Telephone: 651-639-0913 Facsimile: 651-639-0923
www.CRAworld.com

January 10, 2012

Reference No. 003978-10

VIA EMAIL ONLY (PDF)

Ms. Sheri Bianchin
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
77 West Jackson
Chicago, Illinois 60604

Ms. Erin Endsley
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
DNR Service Center
1701 N. 4th Street
Superior, Wisconsin 54880

Dear Ms. Bianchin and Ms. Endsley:

Re: Fourth Quarter 2011 Report
EW1 Treatment and Discharge
Wausau Water Supply NPL Site

On behalf of the Wausau Water Supply PRP Group, Conestoga-Rovers and Associates (CRA) is pleased to submit this report of the extraction, treatment, and discharge of groundwater from Extraction Well No. 1 (EW-1) at RBC Manufacturing Inc. (formerly Marathon Electric) on the Wausau Water Supply NPL Site. Groundwater is pumped from EW-1 and treated by flowing over riprap on the bank of the Wisconsin River before it flows into the river. This report covers the fourth quarter of 2011.

Fourth quarter 2011 samples were collected on December 20, 2011, from the spigot at the well head (influent) and from the end of the spillway (effluent). The samples were shipped by overnight courier to TestAmerica Laboratories in North Canton, Ohio, for site-specific volatile organic compound (VOC) analyses by EPA Method 8260B. Sampling and analysis were completed in accordance with the Groundwater Monitoring Plan.

Copies of the laboratory report and data validation memo are provided in Attachments A and B, respectively. The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification. A summary of the detected VOC concentrations is reported below.

Analyte	*Influent*	*Effluent*	*Discharge Limit*
trichloroethene	7.3 µg/l	3.3 µg/l	41,000

As shown, only trichloroethene was detected and concentrations were well below the surface water discharge limits. EW-1 has operated continuously since April 28, 2011, and the pumping rate remained consistent through the fourth quarter. The average pumping rate for the fourth quarter was 555 gpm.

Approximately 75,000,000 gallons of water were treated by EW1 during the fourth quarter. Table 1 summarizes the EW-1 pumping volumes and average pumping rates over the fourth quarter of 2011.

Please call me at (651) 639-0913 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charles Ahrens

CA/sb/15
Encl.

cc: Lee Bergmann, Regal Beloit
Dave Erickson, City of Wausau

TABLE 1

EXTRACTION WELL EW-1 PUMPING RATES
FOURTH QUARTER 2011
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

Date	*Elapsed Time (minutes)*	*Meter Reading*	*Total Flow (gallons)*	*Average Flow Rate (gpm)*
09/30/11		484,873,000		
10/10/11	14,355	492,783,000	7,910,000	551
11/15/11	51,712	522,705,000	29,922,000	579
12/20/11	50,318	550,353,000	27,648,000	549
01/06/12	24,705	563,211,000	12,858,000	520
4th Qtr Totals	**141,090**		**78,338,000**	**555**

Notes:

EW-1 operated continuously through the fourth quarter of 2011.

ATTACHMENT A

LABORATORY REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-7139-1
Client Project/Site: 3978, Wausau

For:
Conestoga-Rovers & Associates, Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
12/30/2011 10:43:13 AM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-7139-1

Laboratory: TestAmerica North Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 3978, Wausau

Report Number: 240-7139-1

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 North 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 12/21/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.1 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 122011-01 (240-7139-1), 122011-02 (240-7139-2) and TRIP BLANK (240-7139-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/29/2011.

No difficulties were encountered during the VOCs analyses.

All quality control parameters were within the acceptance limits.

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Lab Sample ID	Client Sample ID		Matrix	Collected	Received
240-7139-1	122011-01	Influent	Water	12/20/11 09:16	12/21/11 11:10
240-7139-2	122011-02	Effluent	Water	12/20/11 09:11	12/21/11 11:10
240-7139-3	TRIP BLANK		Water	12/20/11 00:00	12/21/11 11:10

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Client Sample ID: 122011-01 — Lab Sample ID: 240-7139-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	7.3		1.0	0.17	ug/L	1		8260B	Total/NA

Client Sample ID: 122011-02 — Lab Sample ID: 240-7139-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3.3		1.0	0.17	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-7139-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.7	J	10	1.1	ug/L	1		8260B	Total/NA

Client Sample ID: 122011-01
Date Collected: 12/20/11 09:16
Date Received: 12/21/11 11:10

Influent

Lab Sample ID: 240-7139-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			12/29/11 04:47	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			12/29/11 04:47	1
Acetone	10	U	10	1.1	ug/L			12/29/11 04:47	1
Benzene	1.0	U	1.0	0.13	ug/L			12/29/11 04:47	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			12/29/11 04:47	1
Chloroform	1.0	U	1.0	0.16	ug/L			12/29/11 04:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			12/29/11 04:47	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			12/29/11 04:47	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			12/29/11 04:47	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			12/29/11 04:47	1
Toluene	1.0	U	1.0	0.13	ug/L			12/29/11 04:47	1
Trichloroethene	**7.3**		1.0	0.17	ug/L			12/29/11 04:47	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			12/29/11 04:47	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			12/29/11 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*63 - 129*		*12/29/11 04:47*	*1*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*12/29/11 04:47*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*12/29/11 04:47*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*12/29/11 04:47*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Client Sample ID: 122011-02
Date Collected: 12/20/11 09:11
Date Received: 12/21/11 11:10

Effluent

Lab Sample ID: 240-7139-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			12/29/11 05:10	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			12/29/11 05:10	1
Acetone	10	U	10	1.1	ug/L			12/29/11 05:10	1
Benzene	1.0	U	1.0	0.13	ug/L			12/29/11 05:10	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			12/29/11 05:10	1
Chloroform	1.0	U	1.0	0.16	ug/L			12/29/11 05:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			12/29/11 05:10	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			12/29/11 05:10	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			12/29/11 05:10	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			12/29/11 05:10	1
Toluene	1.0	U	1.0	0.13	ug/L			12/29/11 05:10	1
Trichloroethene	**3.3**		1.0	0.17	ug/L			12/29/11 05:10	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			12/29/11 05:10	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			12/29/11 05:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*12/29/11 05:10*	*1*
4-Bromofluorobenzene (Surr)	*77*		*66 - 117*		*12/29/11 05:10*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*12/29/11 05:10*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 121*		*12/29/11 05:10*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 12/20/11 00:00
Date Received: 12/21/11 11:10

Lab Sample ID: 240-7139-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			12/29/11 05:32	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			12/29/11 05:32	1
Acetone	2.7	J	10	1.1	ug/L			12/29/11 05:32	1
Benzene	1.0	U	1.0	0.13	ug/L			12/29/11 05:32	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			12/29/11 05:32	1
Chloroform	1.0	U	1.0	0.16	ug/L			12/29/11 05:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			12/29/11 05:32	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			12/29/11 05:32	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			12/29/11 05:32	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			12/29/11 05:32	1
Toluene	1.0	U	1.0	0.13	ug/L			12/29/11 05:32	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			12/29/11 05:32	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			12/29/11 05:32	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			12/29/11 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*12/29/11 05:32*	*1*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*12/29/11 05:32*	*1*
Toluene-d8 (Surr)	*85*		*74 - 115*		*12/29/11 05:32*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*12/29/11 05:32*	*1*

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (63-129)	BFB (66-117)	TOL (74-115)	DBFM (75-121)
240-7139-1	122011-01	102	83	88	100
240-7139-2	122011-02	100	77	84	96
240-7139-3	TRIP BLANK	99	79	85	100
LCS 240-28440/4	Lab Control Sample	95	99	91	96
MB 240-28440/5	Method Blank	101	85	89	100

Surrogate Legend

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

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

Lab Sample ID: MB 240-28440/5
Matrix: Water
Analysis Batch: 28440

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			12/28/11 22:24	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			12/28/11 22:24	1
Acetone	10	U	10	1.1	ug/L			12/28/11 22:24	1
Benzene	1.0	U	1.0	0.13	ug/L			12/28/11 22:24	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			12/28/11 22:24	1
Chloroform	1.0	U	1.0	0.16	ug/L			12/28/11 22:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			12/28/11 22:24	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			12/28/11 22:24	1
Methylene Chloride	1.0	U	1.0	0.33	ug/L			12/28/11 22:24	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			12/28/11 22:24	1
Toluene	1.0	U	1.0	0.13	ug/L			12/28/11 22:24	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			12/28/11 22:24	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			12/28/11 22:24	1
Xylenes, Total	1.0	U	1.0	0.28	ug/L			12/28/11 22:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*12/28/11 22:24*	*1*
4-Bromofluorobenzene (Surr)	*85*		*66 - 117*		*12/28/11 22:24*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*12/28/11 22:24*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*12/28/11 22:24*	*1*

Lab Sample ID: LCS 240-28440/4
Matrix: Water
Analysis Batch: 28440

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	10.0	8.83		ug/L		88	80 - 112
1,1-Dichloroethene	10.0	9.87		ug/L		99	78 - 131
Acetone	20.0	18.5		ug/L		93	43 - 136
Benzene	10.0	9.60		ug/L		96	83 - 112
Carbon tetrachloride	10.0	9.67		ug/L		97	66 - 128
Chloroform	10.0	10.2		ug/L		102	79 - 117
cis-1,2-Dichloroethene	10.0	9.51		ug/L		95	80 - 113
Ethylbenzene	10.0	9.66		ug/L		97	83 - 112
m-Xylene & p-Xylene	20.0	19.4		ug/L		97	83 - 113
Methylene Chloride	10.0	9.23		ug/L		92	66 - 131
o-Xylene	10.0	9.75		ug/L		98	83 - 113
Tetrachloroethene	10.0	9.38		ug/L		94	79 - 114
Toluene	10.0	9.05		ug/L		91	84 - 111
Trichloroethene	10.0	9.46		ug/L		95	76 - 117
Vinyl chloride	10.0	7.21		ug/L		72	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*
Toluene-d8 (Surr)	*91*		*74 - 115*
Dibromofluoromethane (Surr)	*96*		*75 - 121*

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

GC/MS VOA

Analysis Batch: 28440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-7139-1	122011-01	Total/NA	Water	8260B	
240-7139-2	122011-02	Total/NA	Water	8260B	
240-7139-3	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-28440/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-28440/5	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Client Sample ID: 122011-01

Lab Sample ID: 240-7139-1

Date Collected: 12/20/11 09:16
Matrix: Water
Date Received: 12/21/11 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	28440	12/29/11 04:47	LW	TAL NC

Client Sample ID: 122011-02

Lab Sample ID: 240-7139-2

Date Collected: 12/20/11 09:11
Matrix: Water
Date Received: 12/21/11 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	28440	12/29/11 05:10	LW	TAL NC

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-7139-3

Date Collected: 12/20/11 00:00
Matrix: Water
Date Received: 12/21/11 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	28440	12/29/11 05:32	LW	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3978, Wausau

TestAmerica Job ID: 240-7139-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	ACLASS	DoD ELAP		ADE-1437
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	Georgia EPD	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio	OVAP	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	USDA		P330-11-00328
TestAmerica North Canton	Virginia	NELAC Secondary AB	3	460175
TestAmerica North Canton	West Virginia	West Virginia DEP	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact					
Company Name: RBC Manufacturing Corp.	Client Project Manager: Lee Bergmann	Site Contact: Same	Lab Contact:	COC No: 035360
Address: 100 E. Randolph St	Telephone: 715 675 8104	Telephone:	Telephone:	____ of ____ COCs
City/State/Zip: Wausau, WI 54401	Email: lee.bergmann@regalbeloit.com	TAT (Analysis Turnaround Time) (In BUS days)	Analyses	For lab use only
Phone: 715 675 8104		TAT if different from below ____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.:
Project Name: EW-1 4th Q Samples	Method of Shipment/Carrier: Fed Ex			
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite / Grab	Project VOCs										Sample Specific Notes / Special Instructions:
122011-01	12-20	9:15A		✓						✓					N	G	✓										
122011-01 Influent		9:16A		✓						✓					N	G	✓										
122011-01		9:16A		✓						✓					N	G	✓										
122011-02		9:10A		✓						✓					N	G	✓										
122011-02 Effluent		9:11A		✓						✓					N	G	✓										
122011-02		9:11A		✓						✓					N	G	✓										
Trip blank																	✓										

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

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Lee Bergmann	RBC Manuf. Corp	12-20-11 10:00AM	[signature]	TAL	12-21-11 11:10
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 1139
North Canton Facility

Client RBC Project _____ By: [signature]
Cooler Received on 12-21-11 Opened on 12-21-11 (Signature)
~~FedEx~~ UPS DHL FAS Stetson Client Drop Off TestAmerica Courier Other _____
TestAmerica Cooler # _____ Multiple Coolers ~~Foam Box~~ Client Cooler Other _____

1. Were custody seals on the outside of the cooler(s)? ~~Yes~~ No Intact? ~~Yes~~ No NA
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? ~~Yes~~ No NA
   Were custody seals on the bottle(s)? Yes ~~No~~
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? ~~Yes~~ No
3. Did custody papers accompany the sample(s)? ~~Yes~~ No Relinquished by client? ~~Yes~~ No
4. Were the custody papers signed in the appropriate place? ~~Yes~~ No
5. Packing material used: Bubble Wrap Foam None Other ~~Bag~~
6. Cooler temperature upon receipt 1.1 °C See back of form for multiple coolers/temps
   METHOD: ~~IR~~ Other _____
   COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None
7. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
8. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
9. Were sample(s) at the correct pH upon receipt? Yes No ~~NA~~
10. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
11. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
12. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
13. Was a trip blank present in the cooler(s)? ~~Yes~~ No Were VOAs on the COC? ~~Yes~~ No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning

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14. CHAIN OF CUSTODY

The following discrepancies occurred:

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 >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 110410-HNO_3; Sulfuric Acid Lot# 041911-H_2SO_4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-*$(CH_3COO)_2ZN/NaOH$.* What time was preserved added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

14

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-7139-1

Login Number: 7139
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT B

DATA VALIDATION MEMO

CONESTOGA-ROVERS & ASSOCIATES

1801 Old Highway 8 NW, Suite #114
St. Paul, Minnesota 55112
Telephone: (651) 639-0913 Fax: (651) 639-0923
www.CRAworld.com

MEMORANDUM

TO:	Chuck Ahrens, CRA	REF. NO.:	003978-10
FROM:	Grant Anderson/sb/14	DATE:	January 5, 2012
CC:	Analytical Data File		
RE:	**Data Quality Assessment** **December 20, 2011 Sampling Event** **Wausau Superfund Site - Wausau, Wisconsin**		

The following details a data quality assessment for water samples collected December 20, 2011, at the Wausau Superfund Site in Wausau, Wisconsin. The samples identified as 122011-01 (Influent) and 122011-02 (Effluent) were analyzed for Site list volatile organic compounds (VOCs)[1]. The analyses were performed by TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. The quality assurance criteria were defined by the quality assurance project plan (QAPP)[2].

HOLDING TIME PERIOD

The holding time period for VOC analyses is 14 days from sample collection to completion of analyses. On the basis of the sample collection date on the chain-of-custody form and analysis dates on the analytical report provided by TestAmerica, the analyses were completed within the specified holding time period.

SURROGATE COMPOUND PERCENT RECOVERIES (SURROGATE RECOVERIES)

Individual sample performance for VOC analyses was monitored using surrogate recoveries. The surrogate recoveries were within acceptance criteria, indicating that individual sample performance was adequate.

METHOD BLANK SAMPLE

Contamination of samples contributed by laboratory conditions or procedures was monitored by the concurrent preparation and analysis of a method blank sample. The method blank sample was reported to

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1 VOC Method 8260B was derived from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, November 1986 and updates.

2 Application of quality assurance criteria was consistent with "National Functional Guidelines for Organic Data Review", October 1999.

be free from detectable concentrations of target analytes, indicating that laboratory contamination was unlikely.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE (LCS/LCSD)

Overall performance of the analyses was monitored by means of LCS/LCSD data. The LCS recovery and RPD data for the analyses were within control limits criteria, indicating that overall performance was adequate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) RESULTS

To assess the long-term accuracy and precision of the analytical method on various matrices, matrix spike percent recoveries and relative percent difference (RPD) of the spike recoveries were determined for the analyses. Since the MS/MSD spike sample data were derived from non-project samples, no evaluation of accuracy or precision was made based on the MS/MSD data.

FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

The field QA/QC associated with the sampling event consisted of a trip blank sample.

To evaluate the possibility of contamination arising from sample transport, the environment, and/or shipping, a trip blank sample was submitted to the laboratory for VOC analysis. The trip blank yielded a detection of acetone (2.7 ug/l). However, the associated samples were reported to be free from detectable concentrations of acetone; therefore, no qualification of data was necessary based on trip blank contamination.

OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision and may be used without qualification.