2013 ANNUAL PROGRESS REPORT AND REMEDIAL PROGRESS EVALUATION

FORMER TAYLOR INSTRUMENTS SITE
95 AMES STREET
ROCHESTER, NEW YORK

PREPARED FOR:

ABB, INC.
5 WATERSIDE CROSSING
WINDSOR, CT 06095

PREPARED BY:

AMEC ENVIRONMENT & INFRASTRUCTURE, INC.
9725 COGDILL ROAD
KNOXVILLE, TN 37932

AMEC PROJECT 3031052006

February 2014

February 25, 2014

Mr. Frank Sowers
Project Manager
NYSDEC
Region 8 - Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Subject: **2013 Annual Progress Report and Remedial Progress Evaluation**
Voluntary Cleanup Agreement (VCA) Index B8-0508-97-02
Former Taylor Instruments Facility
Rochester, New York
AMEC Project 3031052006

Dear Mr. Sowers:

In accordance with Section X.I.B. of the Taylor Instruments Site Voluntary Cleanup Agreement, enclosed please find one hard copy and one electronic copy of the 2013 Annual Progress Report and Remedial Progress Evaluation. The Periodic Review Report is included as an Appendix.

If you have any questions, please call me at (865) 671-6774.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Ricky A. Ryan, P.E.
Senior Principal Project Manager

K. Joe Deatherage
Senior Environmental Engineer

Enclosures

cc: Bart Putzig, NYSDEC (w/o enclosure [*electronic*])
James D. Charles, NYSDEC (w/o enclosure [*electronic*])
Jeffrey M. Kosmala, MCDOH (w/o enclosure)
Katherine Fish, NYSDOH (w/ 1 electronic enclosure)
Jean McCreary, Nixon Peabody LLP (w/ 1 electronic enclosure)
Mark Rollins, Thermo Fisher Scientific (w/ 1 electronic enclosure)
Melody Christopher, ABB (w/ 1 hard copy + electronic enclosure)
Nelson Walter, AMEC (w/o enclosure [*electronic*])

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Website: www.dec.ny.gov

Joe Martens
Commissioner

March 10, 2014

ABB INC.
Melody B. Christopher
5 Waterside Crossing
Windsor, CT 06095

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter
Former Taylor Instruments Facility, Rochester
Monroe County, Site No.: V00144

Dear Melody B. Christopher (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 02/14/2013 to 02/14/2014.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year(s), your next PRR is due on March 16, 2015. You will receive a reminder letter and updated certification form 45-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 585-226-5357 or e-mail: flsowers@gw.dec.state.ny.us

Sincerely,

Frank Sowers
Project Manager

ec:
Justin Deming, DOH Project Manager
Bart Putzig, RHWRE
Ricky Ryan -AMEC
Joe Deatherage - AMEC

cc:
Kevin Carter

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2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

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Figures are contained in Appendix A.

LIST OF TABLES

Table No. **Description**

Tables are contained in Appendix C.

LIST OF ACRONYMS

µg/L	micrograms per liter
µmole/L	micromoles per liter
3DMe®	3-D Microemulsion®
AMEC	AMEC Environment & Infrastructure, Inc.
COC	contaminant of concern
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
EPA	Environmental Protection Agency
MS	matrix spike
MS/MSD	matrix spike/matrix spike duplicate
MSD	matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
QC	quality control
RPD	relative percent difference
TCE	trichloroethene
VOC	volatile organic compound

1.0 INTRODUCTION

This annual progress report summarizes the results from site wide groundwater sampling events conducted in May and November 2013. These activities occurred at the former Taylor Instruments Site – New York State Department of Environmental Conservation (NYSDEC) Site #828028a located at 95 Ames Street in Rochester, New York (Figure 1 in Appendix A), pursuant to a Voluntary Cleanup Agreement (NYSDEC, 1997). The 2013 sampling events were the third year of sampling since AMEC Environment & Infrastructure, Inc. (AMEC) completed an expanded accelerated bioremediation application using 3-D Microemulsion® (3DMe®) in 2010 as the final required active Site remediation. This continued remedial evaluation is consistent with the statement of remedial action objectives in Section 2.2 of the approved *Remedial Work Plan* (Harding Lawson Associates, 2000); to demonstrate a downward trend in volatile organic compound (VOC) concentrations achieved using a combination of active, passive, and accelerated biodegradation remedial technology approaches. All activities described herein are also consistent with an assignable release for the Site, granted by the NYSDEC via letter dated September 2, 2005 (NYSDEC, 2005). In the same letter, NYSDEC approved previous remedial activities as implemented and determined that no further investigation or response would be required at the Site to render it safe for contemplated uses.

Details of the Site investigation and remedial history, including the certification of engineering and institutional controls, are presented in the *Periodic Review Report,* which is provided in Appendix B of this report as requested by NYSDEC (NYSDEC, 2010).

The first semi-annual sampling event for 2013 was conducted in May and the second in November. A summary of the sampling event results for the 3DMe® baseline event, as well as events from 2001-2013, are also included.

Following decommissioning of the remedial treatment system and selected monitoring wells in 2010, 14 monitoring wells remain on the Site, as shown in Figure 1 (Appendix A). Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the contaminants of concern (COCs) are at or below the NYSDEC Class GA Standards.

2.0 GROUNDWATER MONITORING

2.1 SCOPE OF WORK

AMEC personnel performed the May and November sampling events to provide an inclusive set of groundwater analytical data for the 2013 reporting period. During each event, 20 samples were collected and submitted to Test America, Inc. for VOC analyses by U.S. Environmental Protection Agency (EPA) Method 8260B (Table 1, Appendix C). As approved by NYSDEC in the 2011 Operations, Maintenance, and Monitoring Plan (MACTEC, 2011), the samples were analyzed for the six primary COCs remaining at the Site: tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); 1,1-dichloroethene (1,1-DCE); and vinyl chloride. Additionally, to further assess biological parameters supportive for contaminant degradation, selected samples were also analyzed for sulfate by EPA Method 300, methane/ethane by Method AM20GAX, and volatile fatty acids by Method AM23G. The results for these parameters are included in the laboratory reports in Appendix D. Data for dissolved oxygen, oxygen reduction potential, pH, and temperature were also collected in the field during the sampling events. Six of the 20 samples collected for each event were associated with quality control efforts. All environmental samples, including field duplicates and matrix spike/matrix spike duplicate (MS/MSD) samples, were collected using a low-flow peristaltic pump at flow rates <400 milliliters per minute.

Analytical results from the 14 remaining Site wells are presented in Figures 2 and 3 (Appendix A). Laboratory reports and chain-of-custody forms for the 2013 samples are located in Appendix D. Purge and sample field data are presented in the field data records located in Appendix E.

2.2 SUMMARY OF RESULTS

This section presents the results of the groundwater sampling events conducted during 2013. As detailed below, the results from both the May and November events showed the effects of subsequent enhanced biodegradation from the 3DMe® application. The results summary focuses primarily on the current November 2013 results. Tables 1 and 2 (Appendix C) summarize the monitoring well locations with COCs exceeding NYSDEC Class GA Standards for overburden and bedrock monitoring wells, respectively. Tables 3 and 4 (Appendix C) show a historical summary of analytical results for the remaining overburden and bedrock monitoring wells, respectively, shown on Figure 1 (Appendix A). Sample VOC results are also presented in "flag boxes" shown on Figures 2 and 3 (Appendix A), representing overburden

monitoring wells and bedrock monitoring wells, respectively. Complete laboratory analytical data reports for the 2013 events are included in Appendix D. Well construction information is provided in Appendix F.

While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in most Site monitoring wells. The greatest decrease has been within the two former source areas; COCs in source area overburden monitoring wells OB-04 in May 2013 and OB-08 in November 2013 were below their respective class GA standards for the first time ever, as shown in Figure 2 (Appendix A).

It is notable that South Source Area overburden well OB-04 and downgradient overburden perimeter well TW-04 had no COCs detected above the Class GA Standards during the May sampling event, while North Source Area overburden well OB-08 had no COCs detected above the Class GA Standards during the November event. Also, perimeter bedrock well BR-02 in November had its lowest contaminant mass ever.

As shown in Tables 1 and 2 (Appendix C) in November 2013, PCE was not detected over the Class GA Standard of 5 micrograms per liter (µg/L); TCE was detected above the Class GA Standard of 5 µg/L in the groundwater samples collected from three overburden monitoring wells and five bedrock monitoring wells; cis-1,2-DCE was detected above the Class GA Standard of 5 µg/L in the groundwater samples collected from four overburden monitoring wells and five bedrock monitoring wells; trans-1,2-DCE was detected above the Class GA Standard of 5 µg/L in the groundwater samples collected from two overburden monitoring wells and three bedrock monitoring wells; 1,1-DCE was detected above the Class GA Standard of 5 µg/L in the groundwater samples collected from two bedrock monitoring wells; and vinyl chloride was detected above the Class GA Standard of 2 µg/L in the groundwater samples collected from five overburden monitoring wells and four bedrock monitoring wells.

After the expanded accelerated bioremediation application of 3DMe® in the overburden groundwater in 2010, the total COC contaminant mass in overburden monitoring wells increased from 12.3 micromoles per liter (µmole/L) prior to the injection to 18.5 µmole/L in May 2011, six months after the injection. This increase is typical for the initial months following a 3DMe® injection, as the 3DMe® causes contaminants to de-sorb from the soil particles in the saturated zone matrix, thus increasing the available contaminant mass in the groundwater. However, since May 2011 the total contaminant mass has dropped significantly and in November 2013, three years after the injection, contaminant mass is at 8.8 µmole/L.

The November 2013 total contaminant mass is 53% lower than the May 2011 event and 29% lower than the baseline event. Looking at specific COCs, the TCE contaminant mass in overburden wells has decreased steadily from 8.8 µmole/L prior to injection to 2.6 µmole/L in May 2013 and then 2.2 µmole/L in November 2013, demonstrating that the 3DMe® has been effective in reducing site source contamination. Cis-1,2-DCE increased from 2.4 µmole/L prior to injection to 7.1 µmole/L in May 2011 after the injection, but has since decreased to 6.7 µmole/L in May 2013 and 3.4 µmole/L in November 2013. Vinyl chloride increased from 0.8 µmole/L prior to injection to 4.8 µmole/L after the injection in May 2011, but decreased to 1.4 µmole/L in May and 3.0 µmole/L in November 2013. The increase in vinyl chloride mass in November 2013 is likely due to degradation of cis-1,2-DCE. All other COCs are at minimal concentrations or were not detected. The contaminant mass values are depicted on Figure 4 (Appendix A). The overall decreases in contaminant mass indicate that the 3DMe® has enhanced contaminant biodegradation.

Along with the enhanced contaminant biodegradation in the overburden groundwater, there has also been a corresponding response in the total bedrock COC contaminant mass with an overall decline from the post injection high in May 2012. The total contaminant mass initially increased from 22.4 µmole/L prior to the injection to 64.4 µmole/L in May 2012, 18 months after the injection. However, the total COC contaminant mass in the bedrock wells declined in November 2013 to 54.7 µmole/L, which is a 15% decrease from the May 2012 event. Looking at specific COCs, the TCE contaminant mass has decreased from 48.1 µmole/L in May 2012 to 14.2 µmole/L in November 2013, a 71% decrease; the cis-1,2-DCE contaminant mass has increased from 14.9 µmole/L in May 2012 to 31.0 µmole/L in November 2013, likely due to degradation of TCE; and the vinyl chloride contaminant mass has increased from 0.5 µmole/L in May 2012 to 7.9 µmole/L in November 2013, reflecting biodegradation of TCE and cis-1,2-DCE. All other COCs have had minimal concentrations or were not detected. The contaminant mass values are depicted in Figure 5 (Appendix A). Although historically bedrock concentrations have varied considerably, the overall decreases in TCE contaminant mass in correlation with overall increases in TCE daughter products (cis-1,2-DCE and vinyl chloride) in November 2013 indicate that the bedrock groundwater has now been affected by the enhanced contaminant biodegradation in the overlying overburden groundwater. Specific evidence of this is in North Source Area bedrock well BR-15 where following the 2010 injection COCs have decreased to near their standards.

2.3 POTENTIOMETRIC SURFACE

Associated with each monitoring event, a potentiometric surface map was generated to depict groundwater elevations for the overburden groundwater. Surfer® 8 and AutoCAD 2011 were used to plot the potentiometric surface maps in Appendix A, Figures 6 and 8. The programs mathematically calculate contours based upon groundwater elevation measurements collected in the field.

The May and November 2013 overburden potentiometric maps (Figures 6 and 8 in Appendix A) were based upon water level information collected during the course of sampling activities on the subject Site. Overburden potentiometric surface mapping for the water level events is comparable to past groundwater mapping indicating groundwater flow is generally to the northeast.

The bedrock water level data cannot readily be plotted due to the large variation in elevation heads. These variations are due to the fractured bedrock system. The head data appears to be bi-modally distributed possibly reflecting differing elevations of water bearing fractures. The historical absence of contaminants at the southwest corner of the Site and their presence in wells along the north and east site perimeters also support the interpretation that bedrock groundwater flow beneath the two source areas is generally towards the north/northeast. Bedrock water level elevations are presented on Figures 7 and 9 in Appendix A.

3.0 ANALYTICAL PROGRAM

Overall data quality is assessed by grouping particular data evaluation findings and reviewing them in terms of precision, accuracy, representativeness, completeness, and comparability (PARCC) criteria. Data generated during this monitoring period were evaluated for PARCC criteria after receipt of all analytical data.

3.1 PRECISION

Precision is a quantitative evaluation of the repeatability of a measurement. Precision of analytical measurements is determined by calculating the relative percent difference (RPD) between the two numerical values. For precision, the matrix spike (MS) is performed in duplicate, and the values from both analyses are evaluated. Comparison of results from duplicate field samples may also be indicative of overall precision of a data set. However, field duplicates may be influenced by sampling precision and are not as controlled as laboratory duplicates.

For quality control purposes, a MS and matrix spike duplicate (MSD) were taken for each set of 20 samples with a net result of one MS/MSD analysis for the May 2013 sampling event and one MS/MSD analysis for the November 2013 event. The evaluation of MS/MSD criteria was used to qualify the data. The evaluations of MS/MSD analyses are presented in the following tables.

BR-04 – May 2013

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	RPD	Control Limits (%)	RPD Limit
cis-1,2-DCE	799.7	56	796.8	0	68-138	17
trans-1,2-DCE	157.5	120	156.5	1	66-143	16
1,1-Dichloroethene	76.57	134	75.69	1	70-142	17
Trichloroethene	884.2	-18	877.0	1	73-144	17
Tetrachloroethene	62.38	125	62.57	0	72-145	16
Vinyl chloride	126.8	109	122.1	4	56-129	17

BR-04 – November 2013

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	RPD	Control Limits (%)	RPD Limit
cis-1,2-DCE	1,021	60	1,000	2	68-138	17
trans-1,2-DCE	138.8	59	136.3	2	66-143	16
1,1-Dichloroethene	59.76	100	61.64	3	70-142	17
Trichloroethene	539.1	5	526.0	2	73-144	17
Tetrachloroethene	43.81	88	43.33	1	72-145	16
Vinyl chloride	126.6	99	128.7	2	56-129	17

The RPD evaluations demonstrate that MS/MSD analyses are within acceptable limits.

Field duplicate sampling followed the same sampling outline as MS/MSD analysis. One duplicate sample was collected for each set of 20 samples, resulting in one duplicate sample for the May 2013 and one duplicate sample for the November 2013 sampling event. Field duplicate precision is presented in the following tables.

W-5 – May 2013

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	75		74.6		0.5
	trans-1,2-Dichloroethene	1	10.6		10.3		2.9
	Trichloroethene	20	218		228		4.5
	Vinyl Chloride	1	35.3		33.8		4.3

W-5 – November 2013

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	69.5		69.8		0.4
	trans-1,2-Dichloroethene	1	10.2		9.97		2.3
	Trichloroethene	1	182		185		1.6
	Vinyl Chloride	1	36.5		33.8		7.7

Field duplicate precision was evaluated between the two data sets for detected compounds. The RPDs were below the National Functional Data Validation Guideline of 30 for water samples.

3.2 ACCURACY

Accuracy is a quantitative measurement of agreement between an analytical result and the true value. Accuracy is determined by comparing known amounts of analytes, which are added to the sample prior to analysis, to the field analytical results. Accuracy is expressed as a percentage of recovery of the total amount of spiked analyte. For VOC analyses, each sample was spiked with surrogate compounds prior to analysis (and extraction), and chosen samples were spiked (in duplicate) with additional spikes (MS and MSD). Surrogate and MS/MSD recoveries evaluate accuracy and identify interferences from the sample matrix.

Surrogate recoveries were acceptable for VOC analyses for these sampling events.

3.3 REPRESENTATIVENESS

Representativeness is a qualitative measurement of the degree to which analytical results reflect the true concentrations of analytes that may (or not) be present in a sample. Representativeness of organic analytical results of true Site conditions is evaluated using trip blanks, field blanks, method blanks, and rinsates from decontaminated sampling equipment. Target organic compounds in quality control (QC) samples may represent contamination during sampling or transportation of samples to the laboratory. Compliance with holding time and extraction criteria also assures representativeness of results.

One field blank for the May 2013 event and one field blank for the November 2013 event were analyzed to characterize the water source used during these sampling events. Distilled water was used by the field crews for field blanks. No target VOCs were detected above the reporting limit in the field blanks.

No target VOCs were detected above the reporting limit in the method blank in May 2013 or November 2013.

One trip blank was analyzed during the May 2013 sampling event and one trip blank was analyzed during the November 2013 event as part of the VOC laboratory QC program. No target VOCs were detected above the reporting limit in either of the trip blanks.

Equipment rinse samples were collected for each set of 20 samples, using distilled water to rinse field equipment, and analyzed for all target constituents. One rinsate blank was collected during the May 2013 event and the November 2013 event. No target VOCs were detected above the reporting limit in either rinsate blank.

Representativeness is considered complete due to the lack of target VOC detections in QC efforts.

3.4 COMPLETENESS

Completeness is a quantitative measurement of the usability of a data set. Completeness is defined as the percentage of data that satisfy validation criteria. Rejected data are not usable. Data qualified as estimated, however, is usable. Completeness goals were 100 percent for this report and are considered to be met.

3.5 COMPARABILITY

Comparability is a qualitative assessment of the confidence with which different data sets may be used to characterize a site. Comparability is a necessary criterion because sampling is often performed at different times and precision, accuracy, and representativeness are unique to each sampling event. Comparability between data generated at different times at a single site is evaluated by reviewing sample collection and handling procedures, sample matrix, and analytical methods used. Standardization of sampling protocols and analytical methods assures comparability as long as precision and accuracy criteria are satisfied for each data set. The overall analytical performance for this report was evaluated and is considered comparable to previous and future data sets.

4.0 CONCLUSIONS AND RECOMMENDATIONS

A comparison of analytical data from the 31 sampling events that occurred from 2001-2013 provides an evaluation of the Site remedial progress. The following overall conclusions and recommendations have been reached in this remedial progress evaluation:

- Following shutdown of the remedial treatment system in 2006 and subsequent decommissioning in 2010, overall contaminant levels in the Site monitoring wells have not demonstrated significant rebound effects, and overall declines remain evident.

- In October 2010, AMEC completed an expanded accelerated bioremediation application using 3DMe® as the final required active Site remediation in the vicinities of the former source areas where the remaining concentrations of COCs exceeded NYSDEC Class GA Standards. Additionally, at the request of the NYSDEC and as a precautionary measure, a row of injection points was also placed along the eastern portion of the Site near monitoring well TW-04 to further reduce the potential for contaminants in the groundwater to migrate off site towards nearby residences. By accelerating the biodegradation of COCs in the overburden groundwater, it is expected that the ongoing overall decreases in COC concentrations in all downgradient locations, as well as in the bedrock groundwater, will continue at a more rapid rate.

- While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in most Site monitoring wells. The greatest decrease has been within the two former source areas where COCs in overburden monitoring wells OB-04 in May 2013 and OB-08 in November 2013 were below their respective Class GA standards for the first time ever. Also, perimeter bedrock well BR-02 in November had its lowest contaminant mass ever.

- It is notable that downgradient perimeter overburden well TW-04 had no COCs detected above the Class GA Standards during the May sampling event. Monitoring well TW-04 has been near or below the Class GA standards since May 2009.

- Since the post-injection high concentrations in May 2011, the total overburden groundwater contaminant mass has dropped significantly and in November 2013, three years after the injection, contaminant mass is at 8.8 µmole/L. The November 2013 total contaminant mass is 53% lower than the May 2011 event and 29% lower than the baseline event. The contaminant mass values are depicted on Figure 4 (Appendix A). These decreases in contaminant mass indicate that the 3DMe® has enhanced contaminant biodegradation in the overburden monitoring wells.

- Along with the enhanced contaminant biodegradation in the overburden groundwater, there has been a recent corresponding response in the total bedrock COC contaminant mass. Following a post-injection high in May 2012, the total COC contaminant mass in the bedrock wells declined in November 2013 to 54.7 µmole/L, which is a 15% decrease from the May 2012 event. The contaminant mass values are depicted on

Figure 5 (Appendix A). Recent overall decreases in TCE contaminant mass in correlation with overall increases in TCE daughter products cis-1,2-DCE and vinyl chloride indicate that the bedrock groundwater has now been affected by the enhanced contaminant biodegradation in the overlying overburden groundwater.

- Groundwater monitoring events will continue to be conducted semi-annually on all 14 remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260B. Additionally, as detailed in the revised *Operations, Maintenance, and Monitoring Manual* (MACTEC, 2011), the groundwater samples will be analyzed for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well.

- Results for future post-closure monitoring events will be provided to NYSDEC in subsequent annual reports. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or below the NYSDEC Class GA Standards.

- As requested by NYSDEC (NYSDEC, 2014), the Site Periodic Review Report is provided in Appendix B of this report.

5.0 REFERENCES

Harding Lawson Associates, 2000. *Remedial Work Plan, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York*. Prepared for Combustion Engineering (April).

MACTEC, 2011. *Operations, Maintenance, and Monitoring Manual, Rev. 1, Former Taylor Instruments Site, Monroe County, New York.* Prepared for the New York State Department of Environmental Conservation (March).

NYSDEC, 1997. Voluntary Cleanup Agreement regarding the Taylor Instruments Site, Number B8-0508-97-02 (November).

NYSDEC, 2005. Letter to Ms. Jean H. McCreary with Nixon Peabody LLC (September 2).

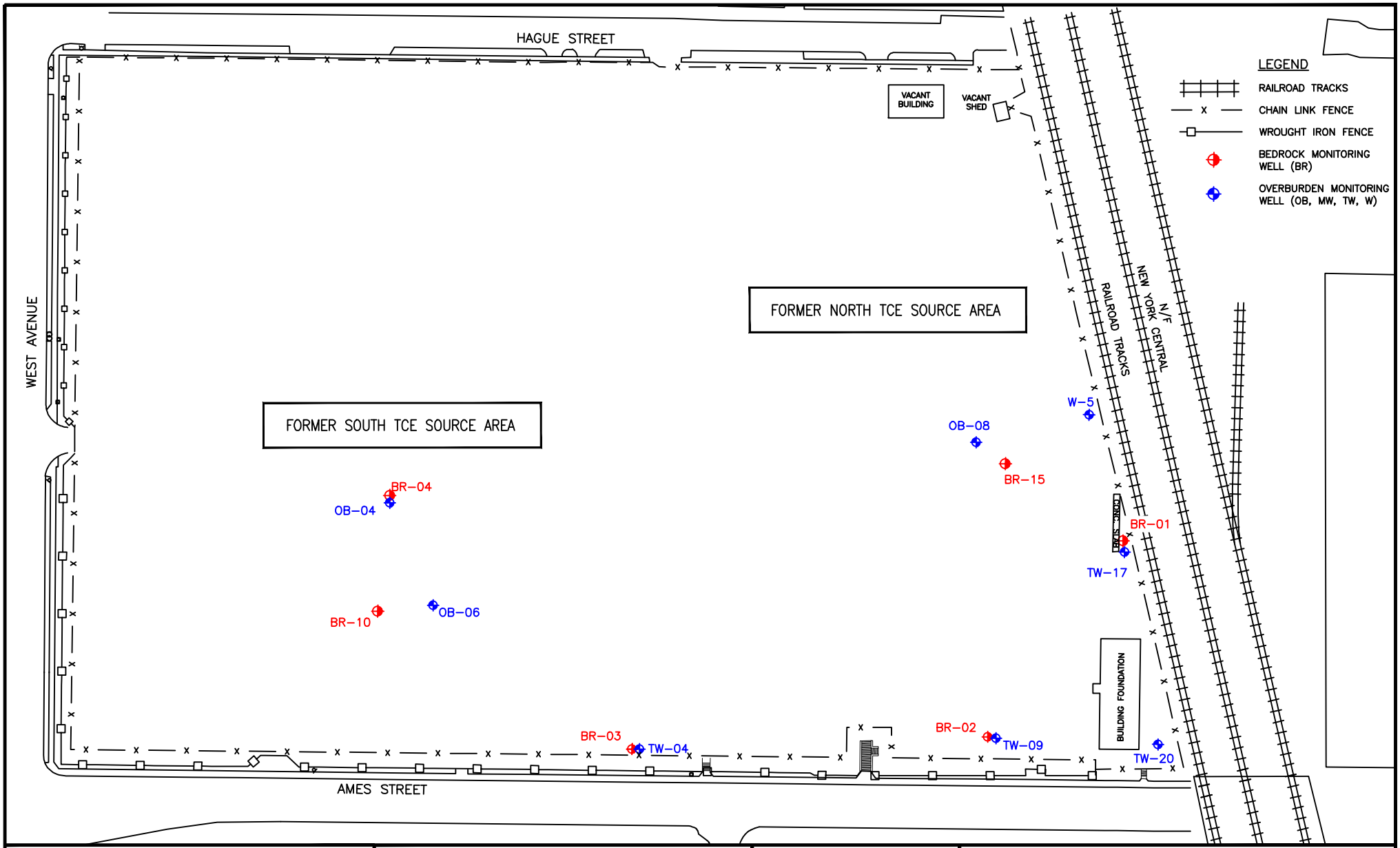
NYSDEC, 2010. Email from Mr. Frank Sowers with NYSDEC to Mr. Joe Deatherage of MACTEC Engineering and Consulting, Inc. (December 12).

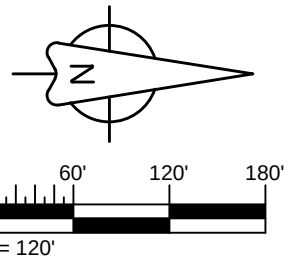
NYSDEC, 2014. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal Site* (January 30).

APPENDIX A

FIGURES

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 01 Well Locations 8.5x11.dwg Jan. 21, 2014 paul.troxel





AMEC Environment & Infrastructure
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:

WELL LOCATIONS

ANNUAL REPORT 2013

FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
APT	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/9/2014	NA
SCALE:		FIGURE. NO.:
AS SHOWN		FIGURE 1

HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

RAILROAD TRACKS

NEW YORK CENTRAL RAILROAD TRACKS

N/F

CONC. SLAB

BUILDING FOUNDATION

LEGEND

- RAILROAD TRACKS
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- BEDROCK MONITORING WELL (BR)
- OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- DCE DICHLOROETHENE
- PCE TETRACHLOROETHENE (PERCHLOROETHENE)
- TCE TRICHLOROETHENE
- U NON DETECT
- µg/L MICROGRAMS PER LITER
- RESULTS ABOVE NYSDEC CLASS GA STANDARD

Site ID: OB-XX	NYSDEC CLASS GA groundwater standard	(units:ug/L)
Analyte		MAY 08 — DATE SAMPLED
PCE	5	1 U — NOT DETECTED AT THE INDICATED QUANTITATION LIMIT
TCE	5	1 U
cis-1,2-DCE	5	41.4 — DETECTED
trans-1,2-DCE	5	8.07
1,1-DCE	5	NS — NOT SAMPLED
Vinyl Chloride	2	47.8

NOTE: HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.

BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

Site ID: OB-04				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	19.9	1 U	1 U	1 U
TCE	71,500	5.76	3.48	2.95
cis-1,2-DCE	56,000	5.69	1.08	1 U
trans-1,2-DCE	170	1.77	1 U	1 U
1,1-DCE	108	1 U	1 U	1 U
Vinyl Chloride	145	9.74	1 U	2.44

Site ID: W-5				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	2.41	1 U	1 U	1 U
TCE	1,435	601	218	182
cis-1,2-DCE	340	164	75	69.5
trans-1,2-DCE	13.1	2.08	10.6	10.2
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	39.5	5.04	35.3	36.5

Site ID: OB-08				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	13.1	1 U	1 U	1 U
TCE	40,000	1 U	1 U	1 U
cis-1,2-DCE	3,750	30.5	1 U	1 U
trans-1,2-DCE	32	3.44	8.29	2.44
1,1-DCE	12.9	1 U	1 U	1 U
Vinyl Chloride	249	36	5.72	1 U

Site ID: OB-06				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	5,600	105	40.1	43.7
cis-1,2-DCE	240	10.5	7.5	7.83
trans-1,2-DCE	1.28	1 U	1 U	1.03
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	13.8	1 U	2.56	8.02

Site ID: TW-17				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	1,000	316	2.63	1 U
cis-1,2-DCE	556	10.6	556	240
trans-1,2-DCE	5.92	1 U	1.22	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	130	1 U	39.3	130

Site ID: TW-04				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	51.1	5.32	1 U	1 U
cis-1,2-DCE	79	1 U	1.13	6.87
trans-1,2-DCE	1 U	1 U	1 U	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U

Site ID: TW-09				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	230	56.7	4.05	1 U
cis-1,2-DCE	36	12.8	2.91	3.38
trans-1,2-DCE	34.6	14.3	5.58	6.92
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	9.03	1 U	3.49	9.03

Site ID: TW-20				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	107	65.9	72.3	56.6
cis-1,2-DCE	8.3	2.34	3.14	1.73
trans-1,2-DCE	1 U	1 U	1 U	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U

OB-08
BR-15
W-5
BR-04
OB-04
OB-06
BR-10
BR-01
TW-17
BR-03
TW-04
BR-02
TW-09
TW-20

0' 40' 80' 120'
1" = 80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
VOCs IN OVERBURDEN MONITORING WELLS
ANNUAL REPORT 2013
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		
AS SHOWN		FIGURE 2

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 02 Annual 2013 VOCs OB.dwg Jan. 21, 2014 paul.troxel

HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

CONC. SLAB

N

LEGEND

- RAILROAD TRACKS
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- BEDROCK MONITORING WELL (BR)
- OVERBURDEN MONITORING WELL (OB, MW, TW, W)

DCE	DICHLOROETHENE
PCE	TETRACHLOROETHENE (PERCHLOROETHENE)
TCE	TRICHLOROETHENE
U	NON DETECT
µg/L	MICROGRAMS PER LITER

RESULTS ABOVE NYSDEC CLASS GA STANDARD

Site ID: OB–XX	NYSDEC CLASS GA groundwater standard	(units:ug/L) MAY 08
Analyte		DATE SAMPLED
PCE	5	1 U — NOT DETECTED AT THE INDICATED QUANTITATION LIMIT
TCE	5	1 U
cis–1,2–DCE	5	41.4 — DETECTED
trans–1,2–DCE	5	8.07
1,1–DCE	5	NS — NOT SAMPLED
Vinyl Chloride	2	47.8

NOTE: HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.

BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

Site ID: BR-04				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1.8	1 U	1 U	1 U
TCE	10,000	325	1,430	638
cis-1,2-DCE	6,410	321	1,370	1,320
trans-1,2-DCE	147	11.7	97.4	66.9
1,1-DCE	21.3	1.37	9.47	9.96
Vinyl Chloride	77	1 U	72.5	77

BR-04 OB-04

Site ID: BR-15				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	6,590	167	1 U	1 U
cis-1,2-DCE	1,390	123	1.53	1 U
trans-1,2-DCE	43.6	2.12	1 U	1.02
1,1-DCE	12.8	1 U	1 U	1 U
Vinyl Chloride	199	3.11	7.51	8.9

OB-08 BR-15

Site ID: BR-01				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	551	9.23	76.3	111
cis-1,2-DCE	1,470	12.8	695	1,470
trans-1,2-DCE	35.4	2.02	35.4	34.4
1,1-DCE	7.52	1 U	7.52	6.87
Vinyl Chloride	406	1 U	200	406

W-5 BR-01 TW-17

Site ID: BR-10				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	2.94	1.72	1 U	1.76
TCE	8,700	277	517	444
cis-1,2-DCE	1,700	77.3	153	173
trans-1,2-DCE	82.8	14	26	29
1,1-DCE	4.7	1 U	1 U	1.11
Vinyl Chloride	16.1	1 U	1 U	2.17

BR-10 OB-06

Site ID: BR-03				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1 U	1 U	1 U	1 U
TCE	1,150	270	596	653
cis-1,2-DCE	329	3.15	23.2	18.2
trans-1,2-DCE	6.71	1 U	4.92	5 U
1,1-DCE	3.1	1 U	1.83	2.04
Vinyl Chloride	1 U	1 U	1 U	1 U

BR-03 TW-04

Site ID: BR-02				(units: µg/L)
Analyte	Historical High	Baseline	May-13	Nov-13
PCE	1.32	1 U	1 U	1 U
TCE	7,000	821	904	27
cis-1,2-DCE	19,100	186	169	24.1
trans-1,2-DCE	154	21.9	12.6	3.45
1,1-DCE	156	1.76	1.61	1 U
Vinyl Chloride	68.1	2.25	2.3	1 U

BR-02 TW-09

TW-20

0' 40' 80' 120'

1" = 80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:

VOCs IN BEDROCK MONITORING WELLS

ANNUAL REPORT 2013

FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		FIGURE 3
AS SHOWN		

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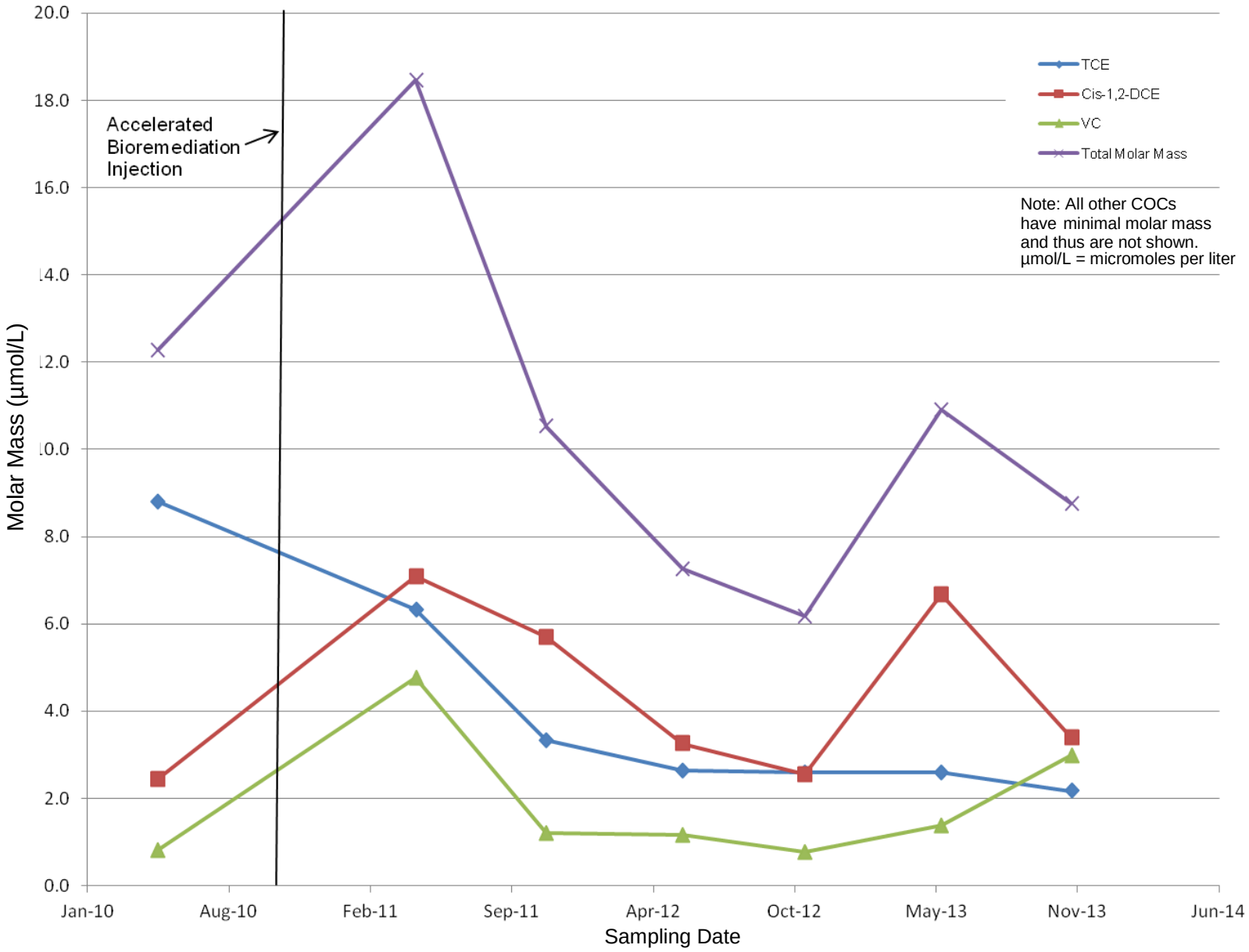

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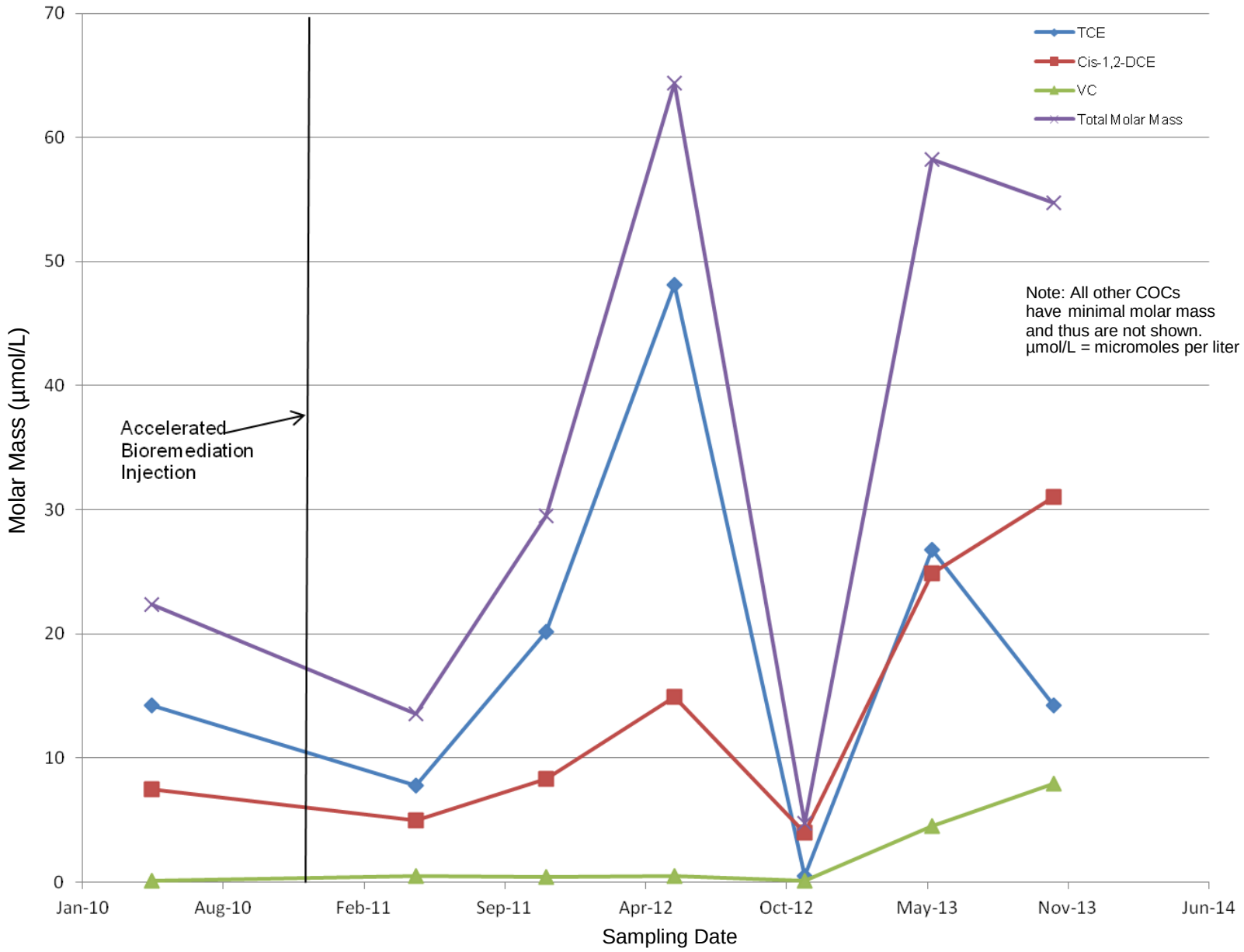
9725 Cogdill Road
Knoxville, TN 37932

Prepared by/Date: CWP 12/30/13

Checked by/Date: KJD 01/03/14

FIGURE 4: OVERBURDEN CONTAMINANT MASS GRAPH
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK



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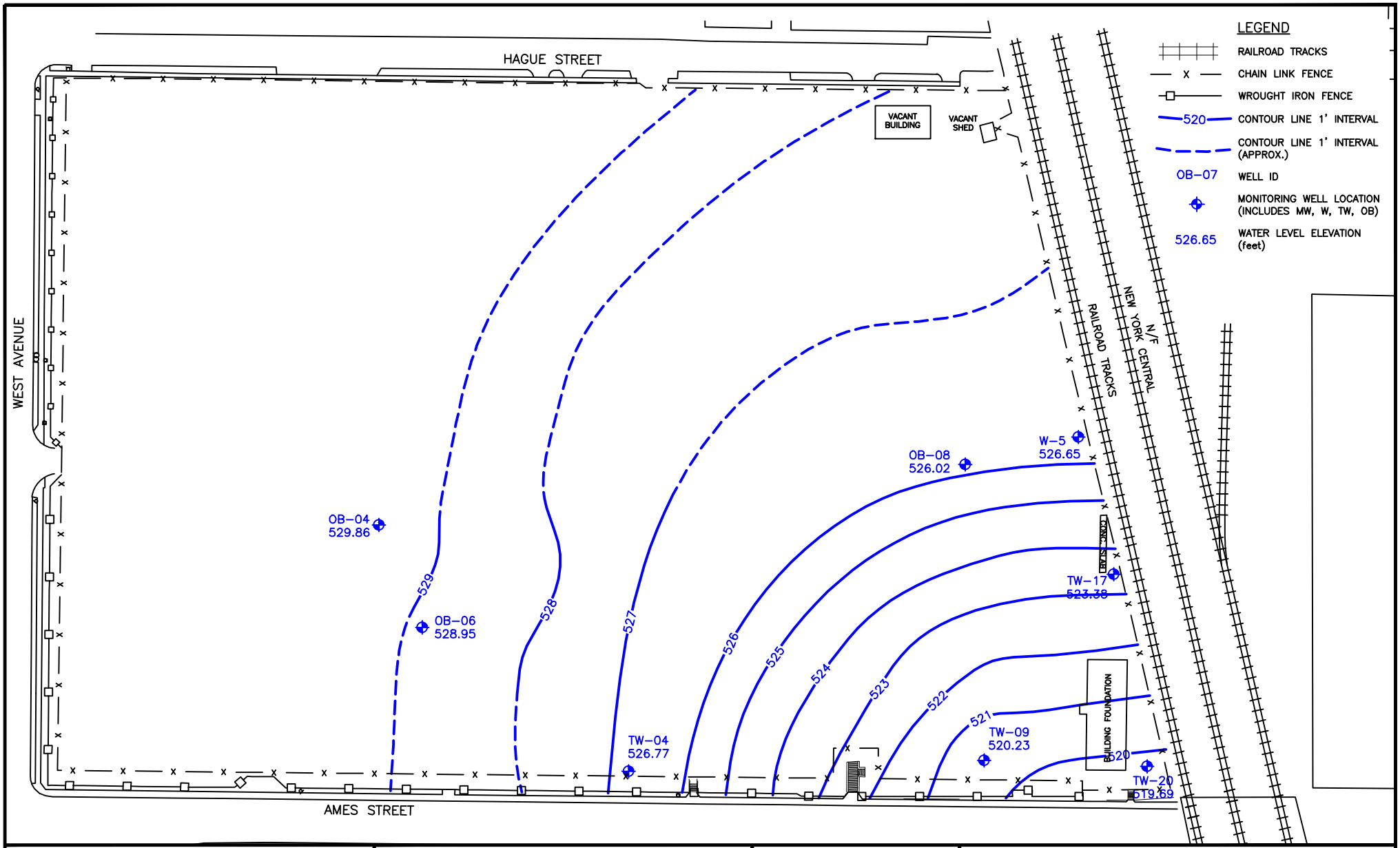
9725 Cogdill Road
Knoxville, TN 37932

Prepared by/Date: CWP 12/30/13

Checked by/Date: KJD 01/03/14

FIGURE 5: BEDROCK CONTAMINANT MASS GRAPH
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 06 OB Potentiometric Map May 2013 8.5x11.dwg Jan. 21, 2014 paul.troxel



N

0' 60' 120' 180'

1" = 120'

AMEC Environment & Infrastructure
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP

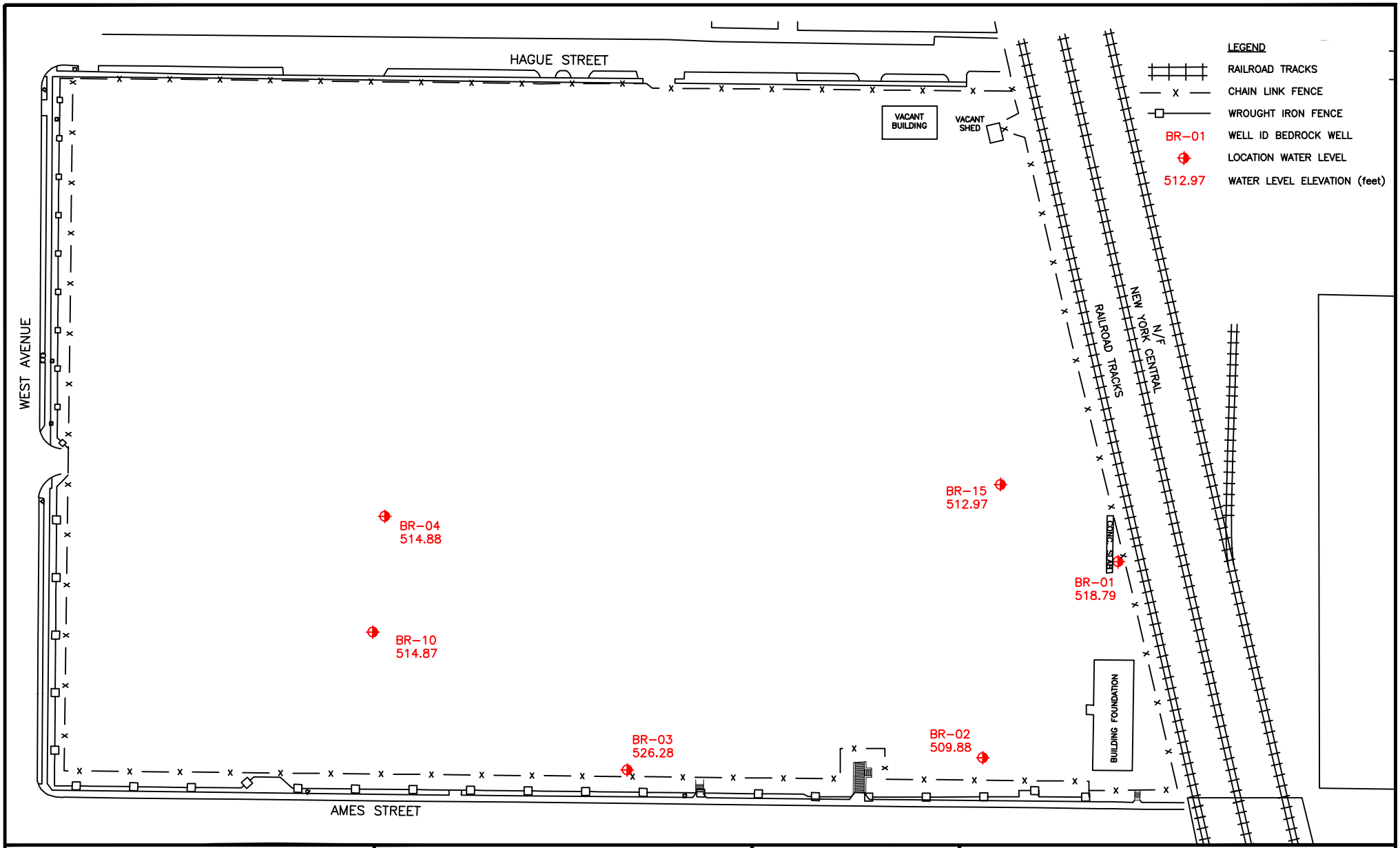
MAY 2013 SAMPLING EVENT

ANNUAL REPORT 2013

FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		FIGURE 6
AS SHOWN		

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 07 BR GW Elevations Map May 2013 8.5x11.dwg Jan. 21, 2014 paul.troxel



N

0' 60' 120' 180'

1" = 120'

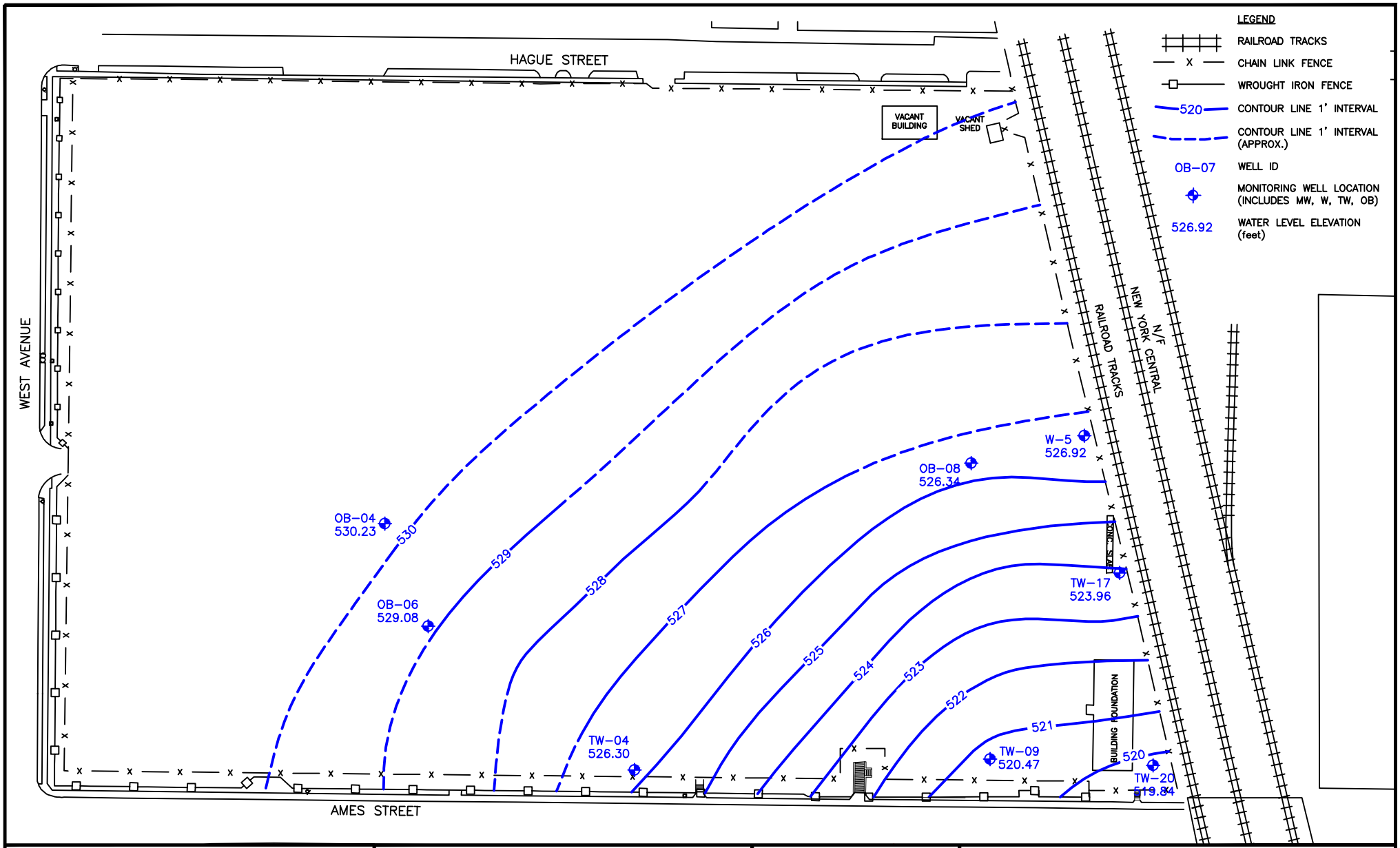
AMEC Environment & Infrastructure
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE: BEDROCK GROUNDWATER ELEVATIONS
MAY 2013 SAMPLING EVENT
ANNUAL REPORT 2013
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		FIGURE 7
AS SHOWN		

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 08 OB Potentiometric Map Nov 2013 Revised 8.5X11.dwg Jan. 21, 2014 paul.troxel



N

0' 60' 120' 180'

1" = 120'

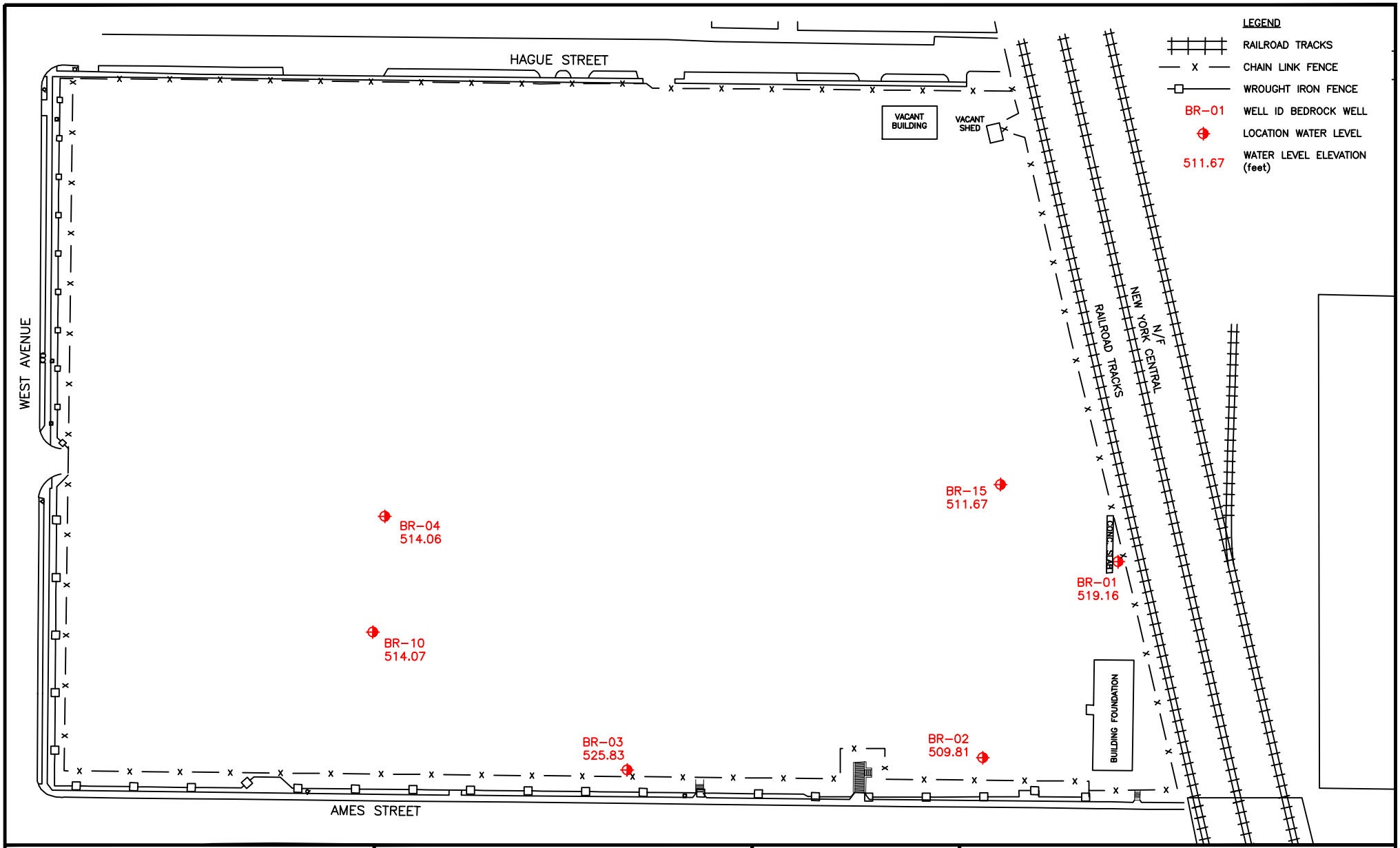
AMEC Environment & Infrastructure
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP
NOVEMBER 2013 SAMPLING EVENT
ANNUAL REPORT 2013
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		
AS SHOWN		FIGURE 8

P:\CADD\Projects\3031\3031052006 ABB\2013 Annual Report\F 09 BR GW Elevations Map Nov 2013 8.5x11.dwg Jan. 21, 2014 paul.troxel



N

0' 60' 120' 180'

1" = 120'

AMEC Environment & Infrastructure
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE: BEDROCK GROUNDWATER ELEVATIONS
NOVEMBER 2013 SAMPLING EVENT
ANNUAL REPORT 2013
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
WRW	JD	3031-05-2006
CHK:	DATE:	DWG NO.
CWP	1/10/2014	NA
SCALE:		FIGURE 9
AS SHOWN		

APPENDIX B

PERIODIC REVIEW REPORT

APPENDIX B

PERIODIC REVIEW REPORT

Introduction

This Periodic Review Report (PRR) was prepared to fulfill the requirements of the New York State Department of Environmental Conservation's (NYSDEC) request for a Site Management PRR as requested in a letter dated January 30, 2014 (NYSDEC, 2014).

Executive Summary

The Site was the location of the former Taylor Instruments facility that was operated from 1904 to 1994 under a variety of owners. In 1993 Combustion Engineering (CE) closed the facility. The Site is currently vacant. In 1997 a Voluntary Clean-up Agreement (VCA) was executed between CE and NYSDEC (VCA Index #B8-0508-97-02, NYSDEC, 1997).

Following extensive soil excavation, filling and capping, and other remedial activities, a groundwater remedy for chlorinated volatile organic compounds (VOCs) was implemented from January 2001 to May 2006. This included an on-site remedial treatment system which consisted of a dual-phase vacuum extraction (DPVE) and bedrock groundwater extraction and treatment system (System).

Upon reaching the conclusion that the System had reached asymptotic contaminant removal rates, in July 2006 AMEC Environment & Infrastructure, Inc. (AMEC) (formerly MACTEC Engineering and Consulting, Inc. [MACTEC]) initiated a pilot-scale application of Hydrogen Release Compound (HRC) Advanced® near monitoring wells OB-08 in the North Trichloroethene (TCE) Source Area and OB-04 in the South TCE Source Area of the Site to evaluate the effectiveness of HRC Advanced® in accelerating the biodegradation of the Site contaminants of concern (COCs) in lieu of further operation of the System. The HRC Advanced® was effective in reducing TCE contamination in the overburden groundwater within the North and South TCE Source Areas.

Following NYSDEC's approval of MACTEC's *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remediation Treatment System* (MACTEC, 2010a) in 2010, the System was decommissioned, most monitoring wells were abandoned, an expanded

application of 3-D Microemulsion® (3DMe®, formerly HRC Advanced®) was implemented, and post-closure monitoring of natural attenuation was implemented starting in 2011. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored in remaining wells (BR-01, BR-02, BR-03, BR-04, BR-10, BR-15, OB-04, OB-06, OB-08, TW-04, TW-09, TW-17, TW-20, and W-5) until groundwater concentrations of the COCs are at or below NYSDEC Class GA Standards. Figure 1 (Appendix A of the Annual Report [AMEC, 2013]) depicts the remaining 14 monitoring wells and site boundaries. In October 2010, AMEC completed the expanded accelerated bioremediation application using 3DMe® in the vicinities of the remaining source area overburden monitoring wells and along the eastern portion of the Site.

Also in cooperation with the NYSDEC and the New York State Department of Health in 2010, following a sub-slab vapor investigation, ABB installed a sub-slab depressurization (SSD) system to mitigate sub-slab vapor at the 80 Ames/215 Danforth duplex residences across from the Site.

Complete details of the system decommissioning, 3DMe® injection, and SSD system installation were provided in the *Construction Completion Report* (CCR) (MACTEC, 2010b) which was approved by NYSDEC on February 16, 2011 (NYSDEC, 2011a).

Overburden and bedrock monitoring wells located on the Site have been sampled regularly from 2001 to 2013. Analytical data from the most recent November 2013 groundwater sampling event indicates that while certain COCs remain above the NYSDEC Class GA drinking water standards, overall substantial declines of COC concentrations have been observed in most Site monitoring wells.

During the past reporting period, no areas of noncompliance were noted. Additionally, no changes to the *Soil Management Plan* (MACTEC, 2005), the revised *Operations, Maintenance, and Monitoring* (OM&M) *Manual* (MACTEC, 2011), or frequency of PRRs submittals are recommended. The requirements for discontinuing the Site management have not yet been met.

Site Overview

The Site is located at 95 Ames Street in Rochester, New York. The approximately 14-acre Site is vacant, containing a fabricated building that previously housed the System as well as a second small storage shed. The Site is mostly paved and is surrounded by a chain link fence. North of the

Site are a railroad line and a commercial/industrial property; to the east across Ames Street are a food processing facility, residences, and a community center; to the south across West Avenue are residences; and to the west across Hague Street is Rochester Gas and Electric. Figure 1 (Appendix A of the Annual Report [AMEC, 2013]) depicts the current Site layout.

Prior to Site remediation, Site assessments identified the following contaminants:

Site Contamination

- Mercury and TCE were the principal Site contaminants present in Site soils.
- VOCs were being released from the North and South TCE Source Areas to soil and bedrock groundwater at concentrations exceeding groundwater quality standards. TCE was the predominant site-related VOC in overburden and bedrock groundwater samples.
- Soil gas samples collected from downgradient Site perimeter locations contained TCE along with tetrachloroethene and dichloroethene at less frequent detections and lower concentrations.
- TCE and its degradation products were found at several locations in on-site sewers; they were the only VOCs detected. Mercury was detected at low levels in each of the water samples obtained from on-site sewer locations**.**

Complete details on the nature and extent of contamination prior to Site remediation were provided in the *Final Investigative Report* (Harding Lawson Associates, 1999).

Remedial Program

Comprehensive remedial actions implemented at the Site were previously detailed in the *Final Engineering Report, On-Site Storm Sewers* (Harding Lawson Associates, 2000a) [2000 FER], and the *Final Engineering Report* (MACTEC, 2003) [2003 FER]. The FER also contained the *Soil Management Plan* (MACTEC, 2005) which contains details on the Site engineering and institutional controls that have been recorded at the Site. These reports were all approved by NYSDEC.

Subsequent to the 2003 FER, the NYSDEC issued an *Assignable Release and Covenant Not to Sue* (AR-CNTS) (NYSDEC, 2005), subject to implementation of an Operations and Maintenance

(O&M) Plan that acknowledged the satisfactory implementation of all Site remedial actions. The AR-CNTS indicated that:

> "*…no further investigation or response will be required at the Site respecting the Existing Contaminations to render the Site safe to be used for the Contemplated Uses." … "The Department, therefore, hereby releases,… Volunteer for the further investigation and remediation of the Site, based on the release of threatened release of any Existing Contamination, provided that … Volunteer pursue to completion the Department-approved O&M Plan…"*

The Site is currently in post-closure groundwater monitoring. Fourteen remaining groundwater monitoring wells are sampled semi-annually for analysis of the six primary contaminants of concern remaining at the Site: tetrachloroethene; TCE; cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); 1,1-dichloroethene (1,1-DCE); and vinyl chloride by Environmental Protection Agency (EPA) Method 8260B. Additionally, the groundwater samples will be tested for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or below the NYSDEC Class GA Standards.

Complete details of the remedial program were provided in the April 2000 *Remedial Work Plan* (Harding Lawson Associates, 2000b), the *Final Engineering Report* (MACTEC, 2003), and the CCR (MACTEC, 2010b).

Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The most current assessment of the effectiveness of the final Site remedial action is presented in the *2013 Annual Progress Report and Remedial Progress Evaluation* (AMEC, 2014).

Institutional and Engineering Control (IC/EC) Plan Compliance Report

Specific details on IC/ECs for the Site were provided in the *Remedial Work Plan* (Harding Lawson Associates, 2000b), the *Soil Management Plan* (MACTEC, 2005), and the revised OM&M Manual (MACTEC, 2011). Certification of the IC/ECs is provided in the NYSDEC-approved certification form (Attachment A).

Monitoring Plan Compliance Report

The scope of the May and November 2013 semi-annual monitoring events, as well as future post-closure monitoring events, is provided in the revised OM&M Manual (MACTEC, 2011). A summary of recent monitoring, comparisons with remedial objectives, and conclusions and recommendations are provided in the *2013 Annual Progress Report and Remedial Progress Evaluation* (AMEC, 2014). AMEC has not identified deficiencies with the monitoring plan.

O&M Plan Compliance Report

The original Site O&M Manual (Harding ESE, 2001) governed all sampling events prior to the May 2011 monitoring event. The components of the plan included details of the DPVE System, including System maintenance; Site health and safety; Site environmental sampling; and reporting and notification requirements. The revised OM&M Manual (MACTEC, 2011), which governs OM&M activities beginning in 2011, was approved by NYSDEC on March 3, 2011 (NYSDEC, 2011b). The components of the revised OM&M Manual include Site groundwater monitoring, SSD system O&M, IC/ECs, and reporting and certification requirements.

O&M activities completed during the 2013 reporting period included two site-wide groundwater sampling events; yearly inspection of a SSD system at an off-site residential duplex; and the submittal of the 2013 Annual Progress Report (AMEC, 2014) to NYSDEC. The yearly inspection of the SSD system at the off-site residential duplex located at 80 Ames Street/215 Danforth Street was conducted on November 11, 2013 by the installation contractor, Mitigation Tech (National Environmental Health Association National Radon Proficiency Program ID certification #100722). Mitigation Tech certified that the SSD system is effectively maintaining sub-slab depressurization. The inspection report is included as Attachment B. AMEC has not identified deficiencies with the revised OM&M Manual (MACTEC, 2011).

Overall PRR Conclusions and Recommendations

Compliance with the revised Site O&M Manual (MACTEC, 2011) including performance and effectiveness of the Site remedy is detailed in the 2013 Annual Progress Report (AMEC, 2014). As indicated in that report, a comparison of analytical data from the 31 sampling events that

occurred in 2001-2013 provides an evaluation of the Site remedial progress. The following overall conclusions and recommendations have been reached in this remedial progress evaluation:

- Following shutdown of the remedial treatment system in 2006 and subsequent decommissioning in 2010, overall contaminant levels in the Site monitoring wells have not demonstrated significant rebound effects, and overall declines remain evident.

- In October 2010, AMEC completed an expanded accelerated bioremediation application using 3DMe® as the final required active Site remediation in the vicinities of the former source areas where the remaining concentrations of COCs exceeded NYSDEC Class GA Standards. Additionally, at the request of the NYSDEC and as a precautionary measure, a row of injection points was also placed along the eastern portion of the Site near monitoring well TW-04 to further reduce the potential for contaminants in the groundwater to migrate off-site towards nearby residences. By accelerating the biodegradation of COCs in the overburden groundwater, it is expected that the ongoing overall decreases in COC concentrations in all downgradient locations, as well as in the bedrock groundwater, will continue at a more rapid rate

- While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in most Site monitoring wells. The greatest decrease has been within the two former source areas where COCs in overburden monitoring wells OB-04 in May 2013 and OB-08 in November 2013 were below their respective Class GA standards for the first time ever. Also, perimeter bedrock well BR-02 in November had its lowest contaminant mass ever.

- It is notable that downgradient perimeter overburden well TW-04 had no COCs detected above the Class GA Standards during the May sampling event. Monitoring well TW-04 has been near or below the Class GA standards since May 2009.

- Since the post-injection high concentrations in May 2011, the total overburden groundwater contaminant mass has dropped significantly and in November 2013, three years after the injection, contaminant mass is at 8.8 micromole per liter (µmole/L). The November 2013 total contaminant mass is 53% lower than the May 2011 event and 29% lower than the baseline event. The contaminant mass values are depicted on Figure 4 (Appendix A of the Annual Report [AMEC, 2013]). These decreases in contaminant mass indicate that the 3DMe® has enhanced contaminant biodegradation in the overburden monitoring wells.

- Along with the enhanced contaminant biodegradation in the overburden groundwater, there has been a recent corresponding response in the total bedrock COC contaminant mass. Following a post-injection high in May 2012, the total COC contaminant mass in the bedrock wells declined in November 2013 to 54.7 µmole/L, which is a 15% decrease from the May 2012 event. The contaminant mass values are depicted on Figure 5 (Appendix A of the Annual Report [AMEC, 2013]). Recent overall decreases in TCE

contaminant mass in correlation with overall increases in TCE daughter products cis-1,2-DCE and vinyl chloride indicate that the bedrock groundwater has now been affected by the enhanced contaminant biodegradation in the overlying overburden groundwater.

- Groundwater monitoring events will continue to be conducted semi-annually on all 14 remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260B. Additionally, as detailed in the revised *Operations, Maintenance, and Monitoring Manual* (MACTEC, 2011), the groundwater samples will be analyzed for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well.

- In September 2010, ABB installed an SSD system to mitigate vapors beneath the basement at the 80 Ames Street/215 Danforth Street duplex as a precautionary measure. The yearly SSD system inspection and maintenance was performed by the installation contractor Mitigation Tech on November 11, 2013, and Mitigation Tech certified that the SSD System is effectively maintaining sub-slab depressurization. Inspections will continue to be performed by Mitigation Tech annually.

References

AMEC, 2014. *2013 Annual Progress Report and Remedial Progress Evaluation*, Former Taylor Instruments Site, Rochester, New York. Prepared for ABB, Inc. (January 30).

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MACTEC, 2011. *Operations, Maintenance, and Monitoring Manual, Rev. 1, Former Taylor Instruments Site, Monroe County, New York*. Prepared for the New York State Department of Environmental Conservation. (March).

NYSDEC, 1997. Voluntary Cleanup Agreement, Taylor Instruments Site, Number B8-0508-97-02 (November).

NYSDEC, 2005. Letter to Ms. Jean H. McCreary with Nixon Peabody LLC (September 2).

NYSDEC, 2011a. Letter to Ricky Ryan of AMEC approving the CCR (February 16).

NYSDEC, 2011b. Letter to Ricky Ryan of AMEC approving the *Operations, Maintenance, and Monitoring Manual, Rev. 1, Former Taylor Instruments Site, Monroe County, New York.* (March 3).

NYSDEC, 2014. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal Site*. (January 30).

Acronym List

2000 FER	*Final Engineering Report, On-Site Storm Sewers* (Harding Lawson Associates, 2000a)
2003 FER	*Final Engineering Report* (MACTEC, 2003)
3DMe®	3D Microemulsion®
µmole/L	micromole per liter
AMEC	AMEC Environment & Infrastructure, Inc.
AR-CNTS	Assignable Release and Covenant Not to Sue
CCR	*Construction Completion Report* (MACTEC, 2010b)
CE	Combustion Engineering
COC	contaminant of concern
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
DPVE	dual-phase vacuum extraction
EPA	Environmental Protection Agency
HRC	Hydrogen Release Compound
IC/EC	institutional and engineering control
MACTEC	MACTEC Engineering and Consulting, Inc.
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
OM&M	operations, maintenance, and monitoring
PRR	Periodic Review Report
Site	location of the former Taylor Instruments facility
SSD	sub-slab depressurization
SSIA	sub-slab vapor and indoor air
System	DPVE and bedrock groundwater extraction and treatment system
TCE	trichloroethene
VCA	Voluntary Clean-up Agreement
VOC	volatile organic compound

Attachment A

NYSDEC-Approved Certification Form

95 Ames Street Certification

Enclosure 2

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

Site Details **Box 1**

Site No. **V00144**

Site Name Former Taylor Instruments Facility

Site Address: 95 AMES STREET Zip Code: 14611
City/Town: Rochester
County: Monroe
Site Acreage: 14.5

Reporting Period: February 14, 2013 to February 14, 2014

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. V00144 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
120.410-1-2	ABB, Inc. (Attn: Melody Christopher)	Ground Water Use Restriction Landuse Restriction Soil Management Plan
~~- Ground Water Use Restriction~~ ~~- Landuse Restriction~~ ~~- Soil Management Plan~~ ~~- Annual certification~~		
~~120.42-1.4~~	~~Kevin Carter~~	~~Site Management Plan~~
~~Sub-slab depressurization system~~ ~~Annual Certification~~		

Box 4

Description of Engineering Controls

Parcel	Engineering Control
120.410-1-2	Vapor Mitigation (future buildings) Cover System Annual Certification
~~- Cover System~~ ~~- Vapor Mitigation (future buildings)~~ ~~120.42-1.4~~	~~Vapor Mitigation~~

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
☒	☐

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

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

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

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

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

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

YES	NO
☒	☐

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

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

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. V00144

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Melody Christopher (print name) at ABB Inc. 5 Waterside Crossing Windsor, CT (print business address)

am certifying as Remedial Party (Owner or Remedial Party)

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

Melody B. Christopher, for ABB Inc. — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

2/24/2014 — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

I Ricky Ryan (print name) at 9725 Cogdill Rd., Knoxville, TN 37932 (print business address)

am certifying as a Professional Engineer for the ABB Inc., Remedial Party (Owner or Remedial Party)

4/14

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

Stamp (Required for [illegible])

80 Ames Street/215 Danforth Street Certification

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

Site Details **Box 1**

Site No. **V00144**

Site Name Former Taylor Instruments Facility

Site Address: 95 AMES STREET Zip Code: 14611
City/Town: Rochester
County: Monroe
Site Acreage: 14.5

Reporting Period: February 14, 2013 to February 14, 2014

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. V00144 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
~~120.410-1-2~~	~~ABB, Inc. (Attn: Melody Christopher)~~	~~Ground Water Use Restriction~~ ~~Landuse Restriction~~ ~~Soil Management Plan~~ ~~Ground Water Use Restriction~~ ~~Landuse Restriction~~ ~~Soil Management Plan~~ ~~Annual certification~~
120.42-1.4	Kevin Carter	Site Management Plan ~~Sub-slab depressurization system~~ ~~Annual Certification~~

Box 4

Description of Engineering Controls

Parcel	Engineering Control
~~120.410-1-2~~	~~Vapor Mitigation~~ ~~Cover System~~ ~~Cover System~~ ~~Vapor Mitigation (future buildings)~~
120.42-1.4	Vapor Mitigation Annual Certification

Parcel 120.42-1.4 is located at 80 Ames Street/215 Danforth Street Rochester, NY 14611

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
☒	☐

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

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

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

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

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

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

YES	NO
☒	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00144

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Melody B. Christopher (print name) at 5 Waterside Crossing, Windsor, CT (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

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

Melody B. Christopher of ABB Inc. — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

2/24/2014 — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

I Ricky Ryan (print name) at 9725 Cogdill Rd., Knoxville, TN 37932 (print business address)

am certifying as a Professional Engineer for the ABB Inc., Remedial Party (Owner or Remedial Party)

Ricky Ryan

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

Stamp (Required for [illegible])

Date 2/14

Attachment B

Mitigation Tech Inspection Report for Sub-Slab Depressurization System
80 Ames Street and 215 Danforth Street

mitigation tech *vapor intrusion specialists*

INSPECTION REPORT

November 18, 2013

Mr. Joe Deatherage, P.E.
Senior Engineer
AMEC E&I, Inc.
9725 Cogdill Rd.
Knoxville, TN 37932
Via email: joe.deatherage@amec.com

Re: ABB Rochester - Former Taylor Instruments
Project No. 3031052006-26//// WO No. & PO No.: C012602673
Work site: 80 Ames St./215 Danforth St., Rochester, NY
Inspection Report for Sub-slab Depressurization System

For work completed November 11, 2013 per WO C012602673, October 22, 2013

1. Conducted a visual inspection of the complete System (e.g., vent fan, piping, warning device, labeling on systems, etc.): **SATISFACTORY** (adjust pipe struck by falling branch)
2. Conducted an inspection of all surfaces to which vacuum is applied:**SATISFACTORY**
3. Inspected all components for condition and proper operation:**SATISFACTORY**
4. Identify and repair any leaks in accordance with Section 4.3.1(a) of the NYS DOH Guidance, with smoke tubes:**NO LEAKS OBSERVED**
5. Inspect the exhaust or discharge point to verify that no air intakes have been located nearby: **NO AIR INTAKES WITHIN TEN FEET**
6. Conduct an airstream velocity measurement:**SATISFACTORY**
7. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab): **SATISFACTORY**
8. Interview an appropriate occupantor owner seeking comments and observations regarding the operation of the System:**SATISFACTORY**
9. Observe VOC readings from sample port: **NON-DETECT AT 100 PPB SCALE**

I certify that this system is effectively maintaining sub-slab depressurization.

Nicholas E. Mouganis

Nicholas E. Mouganis EPA listing #15415-I; NEHA ID# 100722 ***mitigationtech.com

55 SHUMWAY ROAD, BROCKPORT, NEW YORK, 14420 * OFFICE/FAX 585-637-7430

APPENDIX C

TABLES

Table 1
Overburden Monitoring Wells with COCs Exceeding Class GA Standards
November 2013

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	Class GA Standard	Monitoring Well						
		OB-04	OB-06	TW-04	TW-09	TW-17	TW-20	W-5
PCE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	2.95	**43.7**	1 U	1 U	1 U	**56.6**	**182**
cis-1,2-DCE	5	1 U	**7.83**	**6.87**	3.38	**240**	1.73	**69.5**
trans-1,2-DCE	5	1 U	1.03	1 U	**6.92**	1 U	1 U	**10.2**
1,1-DCE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	**2.44**	**8.02**	1 U	**9.03**	**130**	1 U	**36.5**

All concentrations are in micrograms per liter.
OB-08 had no detections exceeding the Class GA Standards.

Created by: CWP on 12/18/13
Checked by: KJD on 1/03/14

Notes: **Bold and shaded** values indicate detection exceeding Class GA Standards
COC = contaminants of concern
DCE = dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
U = not detected at practical quantitation limit

Table 2
Bedrock Monitoring Wells with COCs Exceeding Class GA Standards
November 2013

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	Class GA Standard	Monitoring Well					
		BR-01	BR-02	BR-03	BR-04	BR-10	BR-15
PCE	5	1 U	1 U	1 U	1 U	1.76	1 U
TCE	5	**111**	**27**	**653**	**638**	**444**	1 U
cis-1,2-DCE	5	**1,470**	**24.1**	**18.2**	**1,320**	**173**	1 U
trans-1,2-DCE	5	**34.4**	3.45	5 U	**66.9**	**29**	1.02
1,1-DCE	5	**6.87**	1 U	2.04	**9.96**	1.11	1 U
Vinyl Chloride	2	**406**	1 U	1 U	**77**	**2.17**	**8.9**

All concentrations are in micrograms per liter.

Created by: CWP on 12/18/13
Checked by: KJD on 1/03/14

Notes: **Bold and shaded** values indicate detection exceeding Class GA Standards.
COC = contaminants of concern
DCE = dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
U = not detected at practical quantitation limit

Table 3
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-04	11/19/00	-	70,000	2,900	--	--	--
OB-04	03/24/01	-	150	3.2 J	--	--	--
OB-04	06/18/01	-	39,000	21,000	--	--	--
OB-04	09/01	-	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-04	12/17/01	19.9	71,500	56,000	170	108	10.2
OB-04	03/12/02	12.9	65,600	1,640	16.6	3.8	--
OB-04	06/09/02	-	3,650	554	--	--	--
OB-04	09/23/02	1.8	3,760	1,950	7.5	4.9	2
OB-04	12/09/02	-	46.3	5.5	--	--	--
OB-04	03/22/03	-	11.3	1.3	--	--	--
OB-04	06/13/03	-	41.5	6.7	--	--	--
OB-04	09/21/03	6.0	2,780	125	1.9	--	--
OB-04	12/14/03	-	23.3	3	--	--	--
OB-04	06/19/04	-	394	87.2	1.3	--	--
OB-04	12/05/04	1.0	626	124	1.6	--	--
OB-04	06/26/05	-	367	141	2.4	--	--
OB-04	12/03/05	-	385	139	1.14	--	--
OB-04	07/20/06	-	252	153	1.56	--	--
OB-04	12/06/06	-	1,920	892	--	--	1.19
OB-04	05/03/07	-	618	399	3.19	--	--
OB-04	12/13/07	-	109	1,350	5.43	2.19	95.1
OB-04	05/05/08	-	125	875	5.72	1.60	145
OB-04	11/06/08	-	44.9	258	2.80	--	114
OB-04	05/06/09	-	28.9	102	2.27	--	21.7
OB-04	10/21/09	-	32.8	59.6	--	--	49.8
OB-04	05/12/10	-	5.76	5.69	1.77	--	9.74
OB-04	05/03/11	-	47.1	304	1.79	--	43.3
OB-04	11/01/11	-	5.68	51.1	2.51	--	33.2
OB-04	05/15/12	-	4.35	2.05	1.26	--	8.69
OB-04	10/30/12	-	3.94	2.31	--	--	4.25
OB-04	05/15/13	-	3.48	1.08	--	--	--
OB-04	11/13/13	-	2.95	--	--	--	2.44
OB-06	11/17/00	-	2,600	60	--	--	--
OB-06 (DUP)	11/17/00	-	3,300	80 J	--	--	--
OB-06	03/21/01	-	540	--	--	--	--
OB-06	06/15/01	-	720	12 J	--	--	--
OB-06	09/13/01	-	5,600	240	9.0 J	--	--
OB-06	12/13/01	-	637	13.7	--	--	--
OB-06	03/08/02	-	526	7.8	--	--	--
OB-06	06/07/02	-	184	2.8	--	--	--
OB-06	09/20/02	-	386	10.1	--	--	--
OB-06	12/06/02	-	100	1.5	--	--	--
OB-06	03/20/03	-	84.9	1.5	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-06	06/11/03	--	52.7	1.1	--	--	--
OB-06	09/18/03	--	242	2.6	--	--	--
OB-06	12/11/03	--	60	1	--	--	--
OB-06	06/17/04	--	38.6	--	--	--	--
OB-06	12/02/04	--	31.9	1.4	--	--	--
OB-06	06/26/05	--	37.1	1.8	--	--	--
OB-06	12/02/05	--	117	4.71	--	--	--
OB-06	07/21/06	--	60.5	2.59	--	--	--
OB-06	12/10/06	--	87.8	2.69	--	--	--
OB-06	05/03/07	--	66.3	4.85	--	--	--
OB-06	12/12/07	--	82.9	3.31	--	--	--
OB-06	05/03/08	--	72.6	3.90	--	--	--
OB-06	11/05/08	--	89.8	4.82	--	--	--
OB-06	05/05/09	--	78.3	6.03	--	--	--
OB-06	10/20/09	--	121	12.6	--	--	--
OB-06	05/11/10	--	105	10.5	--	--	--
OB-06	05/03/11	--	60	77.4	--	--	--
OB-06	11/01/11	--	18.9	46.5	1.28	--	13.8
OB-06	05/15/12	--	25.4	7.56	--	--	2.72
OB-06	10/30/12	--	34.3	6.63	--	--	3.86
OB-06	05/15/13	--	40.1	7.5	--	--	2.56
OB-06	11/13/13	--	43.7	7.83	1.03	--	8.02
OB-08	11/16/00	--	40,000	390 J	--	--	--
OB-08	03/20/01	--	29,000	390 J	--	--	--
OB-08	06/19/01	--	15,000	240 J	--	--	--
OB-08	03/12/02	13.1	15,750	208	8.6	2.7	--
OB-08	06/10/02	--	5,370	--	--	--	--
OB-08	09/24/02	9.4	5,440	110	3.6	--	--
OB-08	12/09/02	8.9	8,050	94.2	5	1.3	--
OB-08	03/24/03	5.1	3,480	37.3	2.2	--	--
OB-08	06/13/03	3.9	2,250	15.3	1.2	--	--
OB-08	09/22/03	2.6	2,780	32.1	3.1	--	--
OB-08	12/15/03	3.3	1,360	10.8	1.5	--	--
OB-08	06/20/04	2.9	725	13.1	2.5	--	--
OB-08	12/06/04	--	429	5.80	--	--	--
OB-08	06/29/05	1.3	570	3.3	--	--	--
OB-08	12/06/05	2.12	797	6.25	2.17	--	--
OB-08	07/21/06	2.13	890	7.85	3.91	--	--
OB-08	12/06/06	--	73.7	1,550	10.7	--	--
OB-08	05/03/07	--	2.48	3,750	29.6	12.7	3.08
OB-08	12/13/07	--	--	1,150	32.0	4.24	1.54
OB-08	05/05/08	--	--	41.4	8.07	--	47.8
OB-08	11/06/08	--	--	53.9	14.8	--	68.9

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-08	05/06/09	--	--	42.5	10.2	--	83.8
OB-08	10/21/09	--	--	35.2	12.4	--	111
OB-08	05/12/10	--	--	30.5	3.44	--	36.0
OB-08	05/04/11	--	--	67.9	22.7	--	249
OB-08	11/02/11	--	--	--	15.5	--	4.73
OB-08	05/17/12	--	--	3.78	11.1	--	13.2
OB-08	10/31/12	--	--	--	11.2	--	3.15
OB-08	05/15/13	--	--	--	8.29	--	5.72
OB-08	11/14/13	--	--	--	2.44	--	--
TW-04	10/24/00	--	42	79	--	--	--
TW-04	03/22/01	--	14	16	--	--	--
TW-04	06/15/01	--	--	--	--	--	--
TW-04	09/14/01	--	27	38	--	--	--
TW-04	12/13/01	--	51.1	19.4	--	--	--
TW-04	03/05/02	--	51	3.7	--	--	--
TW-04	06/04/02	--	20.7	--	--	--	--
TW-04	09/17/02	--	21.2	7.1	--	--	--
TW-04	12/04/02	--	42.5	5.5	--	--	--
TW-04	03/18/03	--	--	--	--	--	--
TW-04	06/10/03	--	19.3	--	--	--	--
TW-04	09/16/03	--	29.2	3.1	--	--	--
TW-04	12/09/03	--	49.8	1.1	--	--	--
TW-04	06/15/04	--	12.7	--	--	--	--
TW-04	11/30/04	--	40.0	--	--	--	--
TW-04	06/24/05	--	9.20	1.7	--	--	--
TW-04	12/01/05	--	31.4	--	--	--	--
TW-04	07/18/06	--	27.9	--	--	--	--
TW-04	12/11/06	--	8.99	--	--	--	--
TW-04	05/03/07	--	4.66	--	--	--	--
TW-04	12/11/07	--	15.2	--	--	--	--
TW-04	05/03/08	--	4.40	--	--	--	--
TW-04	11/04/08	--	21.3	--	--	--	--
TW-04	05/04/09	--	4.78	--	--	--	--
TW-04	10/19/09	--	--	--	--	--	--
TW-04	05/11/10	--	5.32	--	--	--	--
TW-04	05/03/11	--	6.17	--	--	--	--
TW-04	11/01/11	--	8.9	2.44	--	--	--
TW-04	05/16/12	--	1.66	1.56	--	--	--
TW-04	10/31/12	--	--	2.85	--	--	--
TW-04	05/14/13	--	--	1.13	--	--	--
TW-04	11/13/13	--	--	6.87	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
TW-09	10/24/00	--	230	36	--	--	--
TW-09	03/27/01	--	120	1.9 J	--	--	--
TW-09	06/16/01	--	200	7.4	--	--	--
TW-09	09/16/01	--	150	9.6	--	--	--
TW-09	12/15/01	--	110	4	--	--	--
TW-09	03/06/02	--	55.4	2	--	--	--
TW-09	06/05/02	--	36.5	--	--	--	--
TW-09	09/19/02	--	91.5	4	--	--	--
TW-09	12/05/02	--	38	--	--	--	--
TW-09	03/19/03	--	--	--	--	--	--
TW-09	06/11/03	--	29.4	--	--	--	--
TW-09	09/17/03	--	77	6.4	--	--	--
TW-09	12/10/03	--	36.8	1.2	--	--	--
TW-09	06/16/04	--	43.1	1.0	--	--	--
TW-09	12/02/04	--	46.2	2.4	--	--	--
TW-09	06/24/05	--	48.2	1.7	--	--	--
TW-09	12/05/05	--	45.0	1.48	--	--	--
TW-09	07/18/06	--	56.7	1.35	--	--	--
TW-09	12/06/06	--	34.3	2.60	--	--	--
TW-09	05/03/07	--	31.2	3.01	1.46	--	--
TW-09	12/13/07	--	29.8	1.28	--	--	--
TW-09	05/05/08	--	50.5	4.70	4.87	--	--
TW-09	11/06/08	--	71.2	12.6	12.0	--	--
TW-09	05/06/09	--	72.1	32.6	32.0	--	5.83
TW-09	10/21/09	--	82.9	34.4	34.6	--	--
TW-09	05/12/10	--	56.7	12.8	14.3	--	--
TW-09	05/03/11	--	4.13	2.28	--	--	4.17
TW-09	11/02/11	--	1.24	4.23	7.07	--	6.26
TW-09	05/16/12	--	1.18	1.11	2.99	--	1.97
TW-09	11/01/12	--	--	--	--	--	--
TW-09	05/14/13	--	4.05	2.91	5.58	--	3.49
TW-09	11/12/13	--	--	3.38	6.92	--	9.03
TW-17	11/17/00	--	1,000	7.9 J	--	--	--
TW-17	03/23/01	--	530	--	--	--	--
TW-17	06/16/01	--	490	--	--	--	--
TW-17	09/14/01	--	740	--	--	--	--
TW-17	12/14/01	--	515	--	--	--	--
TW-17	03/05/02	--	339	--	--	--	--
TW-17	06/04/02	--	393	--	--	--	--
TW-17	09/18/02	--	666	--	--	--	--
TW-17	12/04/02	--	390	--	--	--	--
TW-17	03/18/03	--	379	--	--	--	--
TW-17	06/10/03	--	282	--	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

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TW-17	09/16/03	--	435	--	--	--	--
TW-17	12/09/03	--	441	--	--	--	--
TW-17	06/15/04	--	280	--	--	--	--
TW-17	11/30/04	--	407	6.9	--	--	--
TW-17	06/24/05	--	340	1.0	--	--	--
TW-17	12/01/05	--	397	1.35	--	--	--
TW-17	07/18/06	--	410	2.04	--	--	--
TW-17	12/06/06	--	246	7.47	--	--	--
TW-17	05/02/07	--	253	5.87	--	--	--
TW-17	12/12/07	--	296	3.98	--	--	--
TW-17	05/04/08	--	477	4.19	--	--	--
TW-17	11/05/08	--	270	110	--	--	--
TW-17	05/05/09	--	332	6.46	--	--	--
TW-17	10/20/09	--	94	199	5.92	--	--
TW-17	05/11/10	--	316	10.6	--	--	--
TW-17	05/05/11	--	205	115	--	--	--
TW-17	11/03/11	--	21.6	310	--	--	4.92
TW-17	05/16/12	--	2.16	156	--	--	6.28
TW-17	10/31/12	--	--	147	--	--	2.66
TW-17	05/16/13	--	2.63	556	1.22	--	39.3
TW-17	11/14/13	--	--	240	--	--	130
TW-20	10/25/00	--	5.2	--	--	--	--
TW-20	03/27/01	--	12	--	--	--	--
TW-20	06/16/01	--	2.9 J	--	--	--	--
TW-20	09/14/01	--	--	--	--	--	--
TW-20	12/14/01	--	3.1	--	--	--	--
TW-20	03/06/02	--	2.4	--	--	--	--
TW-20	09/18/02	--	--	--	--	--	--
TW-20	12/04/02	--	11.6	--	--	--	--
TW-20	03/19/03	--	2.4	--	--	--	--
TW-20	06/10/03	--	--	--	--	--	--
TW-20	09/17/03	--	5.0	--	--	--	--
TW-20	12/10/03	--	14.8	--	--	--	--
TW-20	06/15/04	--	--	--	--	--	--
TW-20	12/01/04	--	--	--	--	--	--
TW-20	06/24/05	--	1.5	--	--	--	--
TW-20	12/01/05	--	6.32	--	--	--	--
TW-20	07/18/06	--	12.0	--	--	--	--
TW-20	12/06/06	--	13.2	--	--	--	--
TW-20	05/02/07	--	8.28	--	--	--	--
TW-20	12/11/07	--	4.58	--	--	--	--
TW-20	05/02/08	--	4.50	--	--	--	--
TW-20	11/04/08	--	23.0	3.47	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
TW-20	05/04/09	--	25.2	1.55	--	--	--
TW-20	10/19/09	--	78.8	5.50	--	--	--
TW-20	05/11/10	--	65.9	2.34	--	--	--
TW-20	05/04/11	--	65	2.86	--	--	--
TW-20	11/02/11	--	88.8	8.3	--	--	--
TW-20	05/17/12	--	80.8	4.58	--	--	--
TW-20	11/01/12	--	107	4.11	--	--	--
TW-20	05/16/13	--	72.3	3.14	--	--	--
TW-20	11/14/13	--	56.6	1.73	--	--	--
W-5	11/16/00	--	--	27	11	--	--
W-5	03/23/01	--	120	25	8.1	--	--
W-5	06/18/01	--	62	23	9.6	--	--
W-5	09/17/01	--	64	9.1	6.5	--	--
W-5	12/17/01	--	1,435	39.5	9	--	--
W-5 (DUP)	12/17/01	--	1,780	36.2	8.5	--	--
W-5	03/07/02	--	737	21.6	3.5	--	--
W-5 (DUP)	03/07/02	--	607	23.2	3.9	--	--
W-5	06/06/02	--	155	15.7	--	--	--
W-5 (DUP)	06/06/02	--	150	13.8	--	--	--
W-5	09/19/02	--	960	49.6	--	--	--
W-5 (DUP)	09/19/02	--	676	48.5	4.7	--	--
W-5	12/05/02	--	777	52	3.6	--	--
W-5 (DUP)	12/05/02	--	843	51.7	4	--	--
W-5	03/20/03	--	262	132	3.4	--	--
W-5 (DUP)	03/20/03	--	232	119	3.3	--	--
W-5	06/11/03	--	234	128	5	--	--
W-5 (DUP)	06/11/03	--	234	152	5.1	--	--
W-5	09/18/03	--	510	129	4	--	--
W-5 (DUP)	09/18/03	--	444	112	3.9	--	--
W-5	12/11/03	--	550	127	3.5	--	--
W-5 (DUP)	12/11/03	--	520	118	3.4	--	--
W-5	06/16/04	--	348	98.9	5.4	--	--
W-5 (DUP)	06/16/04	--	360	71.6	4.6	--	--
W-5	12/02/04	--	569	125	4.7	--	--
W-5 (DUP)	12/02/04	--	725	89.4	4.4	--	--
W-5	06/25/05	--	381	98.2	3.7	--	--
W-5 (DUP)	06/25/05	--	380	93.2	3.5	--	--
W-5	12/05/05	--	1,100	76.9	2.13	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2013 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
W-5 (DUP)	12/05/05	--	916	69.5	--	--	--
W-5	07/19/06	--	212	104	2.34	--	3.63
W-5 (DUP)	07/19/06	--	219	99.0	2.30	--	3.81
W-5	12/05/06	--	263	122	2.89	--	7.14
W-5	05/03/07	--	1,140	340	4.61	--	4.43
W-5 (DUP)	05/03/07	--	1,070	336	4.60	--	4.00
W-5	12/13/07	--	835	158	3.83	--	22.1
W-5 (DUP)	12/13/07	--	850	124	3.36	--	16.1
W-5	05/05/08	2.41	1,180	314	4.41	--	6.77 J
W-5 (DUP)	05/05/08	2.25	1,110	342	4.33	--	13.6 J
W-5	11/06/08	--	687	143	3.28	--	8.86
W-5 (DUP)	11/06/08	--	703	126	2.88	--	8.85
W-5	05/06/09	--	961	124	2.61	--	1.33
W-5 (DUP)	05/06/09	--	961	123	2.69	--	--
W-5	10/21/09	--	664	59.9	1.55	--	5.39 J
W-5 (DUP)	10/21/09	--	642	68.2	1.61	--	7.42
W-5	05/12/10	--	601	164	2.08	--	5.04
W-5 (DUP)	05/12/10	--	591	159	2.08	--	5.27
W-5	05/04/11	--	445	117	1.39	--	1.51
W-5 (DUP)	05/04/11	--	432	141	1.62	--	1.53
W-5	11/03/11	--	293	130	1.41	--	12.5
W-5 (DUP)	11/03/11	--	325	153	1.74	--	17.0
W-5	05/17/12	--	230	139	5.37	--	39.5
W-5 (DUP)	05/17/12	--	220	136	5.19	--	37.2
W-5	11/01/12	--	195	85	13.1	--	34.8
W-5 (DUP)	11/01/12	--	191	83.9	12.9	--	34.2
W-5	05/16/13	--	218	75	10.6	--	35.3
DUP-01	05/16/13	--	228	74.6	10.3	--	33.8
W-5	11/14/13	--	182	69.5	10.2	--	36.5
DUP-01	11/14/13	--	185	69.8	9.97	--	33.8

Notes:
-- = no detections
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
DUP = duplicate
ID = identification
J = estimated value
NS = not sampled
TCE = trichloroethene
VOC = volatile organic compound

Prepared by CWP on 1/20/14

Checked by KJD on 1/21/14

Table 4
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2013 Sampling Events

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and Remedial Progress Evaluation
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Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-01	11/17/00	--	180	550	4.3 J	--	3.5 J
BR-01	03/21/01	--	320	34	2.2 J	--	--
BR-01 (DUP)	03/21/01	--	320	35	2.4 J	--	--
BR-01	06/16/01	--	270	59	4.4 J	--	--
BR-01	09/14/01	--	31	170	16	--	--
BR-01	12/14/01	--	63.8	77.5	2	--	--
BR-01	03/09/02	--	47.3	5.5	1.6	--	--
BR-01	06/08/02	--	85.7	10.1	3.2	--	--
BR-01	09/20/02	--	107	16	4	--	--
BR-01	12/07/02	--	14.3	83	3.8	--	--
BR-01	03/21/03	--	25.8	2.1	1	--	--
BR-01	06/12/03	--	60.9	4.6	2.8	--	--
BR-01	09/19/03	--	102	11.4	1.7	--	--
BR-01	12/12/03	--	127	61.7	20.6	--	--
BR-01	06/18/04	--	551	42	6.1	--	--
BR-01	12/03/04	--	65	4.3	1.4	--	--
BR-01	06/26/05	--	199	6.5	1.0	--	--
BR-01	12/02/05	--	1.12	36.2	1.10	--	--
BR-01	07/19/06	--	--	3.09	--	--	--
BR-01	12/08/06	--	--	3.73	--	--	--
BR-01	05/02/07	--	67.5	10.6	--	--	--
BR-01	12/10/07	--	--	70.6	4.33	--	--
BR-01	05/02/08	--	4.19	10.7	1.63	--	--
BR-01	11/04/08	--	--	98.7	2.23	--	--
BR-01	05/04/09	--	3.26	11.3	1.95	--	--
BR-01	10/19/09	--	--	6.92	--	--	--
BR-01	05/11/10	--	9.23	12.8	2.02	--	--
BR-01	05/04/11	--	2.05	14.6	1.03	--	--
BR-01	11/03/11	--	--	41.6	--	--	3.61
BR-01	05/17/12	--	89.6	34.7	1.87	--	3.13
BR-01	10/31/12	--	--	29.6	--	--	7.88
BR-01	05/15/13	--	76.3	695	35.4	7.52	200
BR-01	11/14/13	--	111	1,470	34.4	6.87	406
BR-02	11/18/00	--	1,800	540	31 J	--	--
BR-02	03/21/01	--	1,200	95	--	--	--
BR-02	06/17/01	--	1,000	94	27 J	--	--
BR-02	09/15/01	--	7,000	1,500	63	31 J	--
BR-02	12/15/01	--	6,500	1,830	59.8	30.3	19.6
BR-02	03/09/02	--	588	79.6	20.8	1.2	--
BR-02	06/08/02	--	568	122	2.2	--	--
BR-02	09/21/02	--	768	518	24.4	4.6	18.7
BR-02	12/07/02	--	694	172	29.8	--	5.6

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2013 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-02	03/21/03	--	4,000	19,100	154	156	64.9
BR-02	06/13/03	--	710	17,900	120	122	68.1
BR-02	09/18/03	--	372	245	23.3	--	--
BR-02	12/12/03	--	324	58.2	18.2	--	--
BR-02	06/18/04	--	450	257	33.8	2.8	2.3
BR-02	12/03/04	--	647	242	23.4	1.4	1.4
BR-02	06/27/05	--	163	29	9.1	--	--
BR-02	12/03/05	--	114	23.1	9.08	--	--
BR-02	07/19/06	--	120	16.9	8.29	--	--
BR-02	12/08/06	1.32	113	31.1	11.3	--	--
BR-02	05/02/07	--	409	118	15.2	1.26	--
BR-02	12/10/07	--	134	38.6	14.1	--	--
BR-02	05/02/08	--	153	74.2	14.0	--	--
BR-02	11/04/08	--	90.9	48.1	11.4	--	1.54
BR-02	05/04/09	--	88.1	142	20.5	1.00	1.19
BR-02	10/19/09	--	254	100	13.4	1.03	1.22
BR-02	05/11/10	--	821	186	21.9	1.76	2.25
BR-02	05/04/11	--	237	56.2	8.89	--	--
BR-02	11/02/11	--	2230	483	24.6	4.35	8.25
BR-02	05/16/12	--	5070	1100	49.4	8.67	22
BR-02	11/01/12	--	44.5	23.3	4.69	--	--
BR-02	05/16/13	--	904	169	12.6	1.61	2.3
BR-02	11/13/13	--	27	24.1	3.45	--	--
BR-03	11/18/00	--	440	99	1.2 J	2.2 J	--
BR-03	03/22/01	--	810	12 J	--	3.2 J	--
BR-03	06/15/01	--	500	20 J	--	--	--
BR-03	09/14/01	--	330	7.8 J	--	--	--
BR-03	12/13/01	--	780	7.6	--	2.2	--
BR-03	03/08/02	--	599	9.8	--	2.1	--
BR-03	06/07/02	--	854	19.7	--	2.8	--
BR-03	09/20/02	--	370	6.5	--	--	--
BR-03	12/07/02	--	821	13.5	--	--	--
BR-03	03/21/03	--	590	7.7	--	2	--
BR-03	06/12/03	--	632	25.3	1.9	3	--
BR-03	09/18/03	--	1,150	10.4	1.5	3.1	--
BR-03	12/12/03	--	--	--	--	--	--
BR-03	06/17/04	--	446	17.0	1.1	1.5	--
BR-03	12/03/04	--	60.6	27.0	--	1.0	--
BR-03	06/26/05	--	73.4	5.6	--	--	--
BR-03	12/02/05	--	5.57	21.0	--	--	--
BR-03	07/19/06	--	248	6.97	--	--	--
BR-03	12/08/06	--	29.7	27.3	--	--	--
BR-03	05/01/07	--	701	7.32	--	1.89	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2013 Sampling Events

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-03	12/11/07	--	35.4	21.8	--	--	--
BR-03	05/03/08	--	588	5.20	--	1.81	--
BR-03	11/04/08	--	61.8	4.61	--	--	--
BR-03	05/04/09	--	202	3.10	--	--	--
BR-03	10/19/09	--	365	29.3	1.02	2.05	--
BR-03	05/11/10	--	270	3.15	--	--	--
BR-03	05/03/11	--	52.5	75	--	--	--
BR-03	11/02/11	--	--	37.1	--	--	--
BR-03	05/16/12	--	573	43.4	1.18	1.89	--
BR-03	10/31/12	--	3.06	329	6.71	1.71	--
BR-03	05/16/13	--	596	23.2	4.92	1.83	--
BR-03	11/13/13	--	653	18.2	--	2.04	--
BR-04	11/19/00	--	10,000	600	140	17 J	25 J
BR-04	03/24/01	--	9,000	400	95 J	--	--
BR-04	06/19/01	--	4,300	320	61 J	--	--
BR-04	09/17/01	--	5,000	420	100 J	--	--
BR-04	12/17/01	1.2	5,700	430	79.9	9	27.4
BR-04	03/12/02	--	5,750	384	77	8.1	23.4
BR-04	06/10/02	--	4,570	338	49	--	--
BR-04	09/23/02	--	3,310	551	63.1	8.3	32.2
BR-04	12/09/02	--	5,300	535	77.6	8.3	27.1
BR-04	03/23/03	1.8	4,630	473	52	6.8	14.8
BR-04	06/13/03	--	302	1,280	19.5	3.6	1.2
BR-04	09/21/03	--	2,540	560	61	5.4	32.2
BR-04	12/14/03	--	3,650	507	51.9	6.2	14.3
BR-04	06/19/04	--	102	1,420	45.8	6.4	3.0
BR-04	12/05/04	--	4,090	2,810	90.0	15.3	8.3
BR-04	06/28/05	--	6.6	937	22.5	1.6	1.2
BR-04	12/03/05	--	16.4	127	2.21	--	--
BR-04	07/20/06	--	3,940	6,410	147	21.3	12.9
BR-04	12/09/06	--	5.32	2,030	24.1	3.17	5.21
BR-04	05/01/07	--	56.9	446	12.7	1.09	--
BR-04	12/12/07	--	8.64	240	4.36	--	3.07
BR-04	05/04/08	--	332	647	17.7	2.83	1.37
BR-04	11/06/08	--	7.04	490	8.51	--	3.28
BR-04	05/06/09	--	498	163	10.9	1.59	--
BR-04	10/21/09	--	25.1	167	5.24	--	1.72
BR-04	05/12/10	--	325	321	11.7	1.37	--
BR-04	05/03/11	--	--	--	--	--	--
BR-04	11/01/11	--	4.29	5.02	--	--	--
BR-04	05/15/12	--	55.1	76.6	2.9	--	2.72
BR-04	10/31/12	--	4.9	4.77	--	--	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2013 Sampling Events

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Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-04	05/15/13	--	1,430	1,370	97.4	9.47	72.5
BR-04	11/12/13	--	638	1,320	66.9	9.96	77
BR-10	11/18/00	--	4,000	450	27 J	--	--
BR-10	03/28/01	--	4,700	980	110 J	--	--
BR-10	06/18/01	--	8,500	1,000	--	--	--
BR-10	09/17/01	--	8,700	1,700	160 J	--	--
BR-10	12/16/01	--	5,350	1,200	82.8	3.4	5.6
BR-10	03/11/02	--	3,745	1,090	78.2	3.9	5.5
BR-10	06/09/02	--	5,100	1,290	64.6	4.7	5.3
BR-10	09/22/02	--	--	120	9.8	--	--
BR-10	12/09/02	--	3,060	750	60.1	2.3	--
BR-10	03/22/03	--	2,580	886	42.2	2.5	3.1
BR-10	06/13/03	--	2,950	1,080	61.7	3.2	5.1
BR-10	09/21/03	--	2,250	400	49.4	2	16.1
BR-10	12/13/03	--	1,420	442	36.4	1.4	8.8
BR-10	06/19/04	--	1,520	507	62.9	2.9	6.8
BR-10	12/04/04	--	1,270	436	41.2	1.8	5.0
BR-10	06/27/05	1.3	558	166	17.3	--	1.3
BR-10	12/03/05	1.62	474	122	11.1	--	--
BR-10	07/20/06	--	52.3	12.2	1.53	--	--
BR-10	12/08/06	--	28.2	15.0	1.26	--	--
BR-10	05/02/07	1.01	226	57.8	5.87	--	--
BR-10	12/12/07	--	17.8	3.83	--	--	--
BR-10	05/04/08	2.94	357	94.6	10.7	--	1.40
BR-10	11/05/08	--	8.44	3.02	--	--	--
BR-10	05/05/09	1.67	235	66.1	10.3	--	1.07
BR-10	10/20/09	--	48	22	2.79	--	--
BR-10	05/11/10	1.72	277	77.3	14.0	--	--
BR-10	05/03/11	1.36	725	312	26.3	--	2.79
BR-10	11/01/11	1.35	417	231	25.3	--	2.87
BR-10	05/15/12	1.28	532	192	24	--	1.13
BR-10	10/31/12	--	7.28	2.21	--	--	--
BR-10	05/15/13	--	517	153	26	--	--
BR-10	11/12/13	1.76	444	173	29	1.11	2.17
BR-15	11/19/00	--	2,700	54 J	--	--	--
BR-15 (DUP)	11/19/00	--	2,700	49 J	--	--	--
BR-15	03/26/01	--	2,500	33 J	--	--	--
BR-15	06/18/01	--	2,300	49 J	--	--	--
BR-15	09/16/01	--	4,800	110 J	--	--	--
BR-15	12/16/01	--	6,590	189	28.2	2	1.1
BR-15	03/11/02	--	5,500	172	36.6	2.2	--
BR-15	06/09/02	--	5,800	373	36.9	4.6	3.8
BR-15	09/22/02	--	4,390	555	40.3	7.5	5.4

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2013 Sampling Events

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-15	12/08/02	--	4,740	177	43.6	2.8	--
BR-15	03/22/03	--	2,500	404	21.9	4.3	1.2
BR-15	06/13/03	--	1,180	1,390	24.8	8.4	3.9
BR-15	09/21/03	--	1,230	580	35.3	6.9	8.3
BR-15	12/13/03	--	2,000	194	24.9	2.8	--
BR-15	12/12/07	--	212	380	2.81	1.48	15.7
BR-15	05/04/08	--	43.4	449	2.94	1.38	28.2
BR-15	11/06/08	--	4.08	4.04	--	--	--
BR-15	05/06/09	--	261	105	1.33	--	6.40
BR-15	10/20/09	--	38.0	19.3	--	--	--
BR-15	05/12/10	--	167	123	2.12	--	3.11
BR-15	05/04/11	--	1.74	27.2	--	--	25.9
BR-15	11/02/11	--	1.01	8.81	--	--	10.8
BR-15	05/16/12	--	--	--	--	--	--
BR-15	11/01/12	--	--	--	--	--	--
BR-15	05/14/13	--	--	1.53	--	--	7.51
BR-15	11/12/13	--	--	--	1.02	--	8.9

Notes: -- = no detections
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
DUP = duplicate
ID = identification
J = estimated value
TCE = trichloroethene
VOC = volatile organic compound

Prepared by CWP on 1/20//14
Checked by KJD on 1/21/14

APPENDIX D

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

MAY 2013
LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-27025-1
Client Project/Site: Former Taylor Instruments

For:
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

Attn: Mr. Joe Deatherage

Authorized for release by:
5/30/2013 1:19:55 PM

Shali Brown, Project Manager I
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-27025-1	BR-01	Water	05/15/13 18:00	05/18/13 08:50
490-27025-2	BR-02	Water	05/16/13 11:25	05/18/13 08:50
490-27025-3	BR-03	Water	05/16/13 14:42	05/18/13 08:50
490-27025-4	BR-04	Water	05/15/13 14:00	05/18/13 08:50
490-27025-5	BR-10	Water	05/15/13 16:15	05/18/13 08:50
490-27025-7	OB-04	Water	05/15/13 09:55	05/18/13 08:50
490-27025-8	OB-06	Water	05/15/13 11:46	05/18/13 08:50
490-27025-9	OB-08	Water	05/15/13 18:00	05/18/13 08:50
490-27025-12	TW-17	Water	05/14/13 12:55	05/18/13 08:50
490-27025-13	TW-20	Water	05/16/13 12:30	05/18/13 08:50
490-27025-14	W-5	Water	05/16/13 09:30	05/18/13 08:50
490-27025-15	QAFB01	Water	05/16/13 18:22	05/18/13 08:50
490-27025-16	DUP-01	Water	05/15/13 09:30	05/18/13 08:50
490-27025-17	QARB01	Water	05/16/13 14:47	05/18/13 08:50
490-27025-18	QATB01	Water	05/14/13 00:01	05/18/13 08:50

Job ID: 490-27025-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-27025-1

Comments
For samples BR-15, TW-04, and TW-09 on the chain of custody please reference report: 490-27025-2.

Receipt
The samples were received on 5/18/2013 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 81658 and 81892.

No other analytical or quality issues were noted.

HPLC
Method(s) 300.0: The matrix spike (MS) recovery for batch 81559 was outside the control limits for sulfate. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) recoveries met the acceptance criteria. (490-27025-8 MS)

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

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

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-01
Date Collected: 05/15/13 18:00
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**7.52**		1.00		ug/L			05/24/13 11:30	1
cis-1,2-Dichloroethene	**695**		20.0		ug/L			05/25/13 19:04	20
Tetrachloroethene	ND		1.00		ug/L			05/24/13 11:30	1
trans-1,2-Dichloroethene	**35.4**		1.00		ug/L			05/24/13 11:30	1
Trichloroethene	**76.3**		1.00		ug/L			05/24/13 11:30	1
Vinyl chloride	**200**		20.0		ug/L			05/25/13 19:04	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/24/13 11:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/25/13 19:04*	*20*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/24/13 11:30*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/25/13 19:04*	*20*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 11:30*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*05/25/13 19:04*	*20*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/24/13 11:30*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 19:04*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-02
Date Collected: 05/16/13 11:25
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**1.61**		1.00		ug/L			05/25/13 19:35	1
cis-1,2-Dichloroethene	**169**		1.00		ug/L			05/25/13 19:35	1
Tetrachloroethene	ND		1.00		ug/L			05/25/13 19:35	1
trans-1,2-Dichloroethene	**12.6**		1.00		ug/L			05/25/13 19:35	1
Trichloroethene	**904**		20.0		ug/L			05/25/13 20:06	20
Vinyl chloride	**2.30**		1.00		ug/L			05/25/13 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/25/13 19:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/25/13 20:06*	*20*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/13 19:35*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/25/13 20:06*	*20*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 19:35*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 20:06*	*20*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 19:35*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/25/13 20:06*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-03
Date Collected: 05/16/13 14:42
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**1.83**		1.00		ug/L			05/24/13 12:32	1
cis-1,2-Dichloroethene	**23.2**		1.00		ug/L			05/24/13 12:32	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 12:32	1
trans-1,2-Dichloroethene	**4.92**		1.00		ug/L			05/24/13 12:32	1
Trichloroethene	**596**		20.0		ug/L			05/25/13 20:37	20
Vinyl chloride	ND		1.00		ug/L			05/24/13 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/24/13 12:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/25/13 20:37*	*20*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 12:32*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/13 20:37*	*20*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 12:32*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/25/13 20:37*	*20*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 12:32*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/25/13 20:37*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-04
Date Collected: 05/15/13 14:00
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**9.47**		1.00		ug/L			05/24/13 13:03	1
cis-1,2-Dichloroethene	**1370**		50.0		ug/L			05/25/13 21:07	50
Tetrachloroethene	ND		1.00		ug/L			05/24/13 13:03	1
trans-1,2-Dichloroethene	**97.4**		1.00		ug/L			05/24/13 13:03	1
Trichloroethene	**1430**		50.0		ug/L			05/25/13 21:07	50
Vinyl chloride	**72.5**		1.00		ug/L			05/24/13 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/24/13 13:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/25/13 21:07*	*50*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/24/13 13:03*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*05/25/13 21:07*	*50*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/24/13 13:03*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 21:07*	*50*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/24/13 13:03*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/25/13 21:07*	*50*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-10
Date Collected: 05/15/13 16:15
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 13:34	1
cis-1,2-Dichloroethene	**153**		1.00		ug/L			05/24/13 13:34	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 13:34	1
trans-1,2-Dichloroethene	**26.0**		1.00		ug/L			05/24/13 13:34	1
Trichloroethene	**517**		20.0		ug/L			05/25/13 21:38	20
Vinyl chloride	ND		1.00		ug/L			05/24/13 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/24/13 13:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/25/13 21:38*	*20*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 13:34*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/13 21:38*	*20*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 13:34*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*05/25/13 21:38*	*20*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/24/13 13:34*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/25/13 21:38*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: OB-04
Date Collected: 05/15/13 09:55
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 14:36	1
cis-1,2-Dichloroethene	**1.08**		1.00		ug/L			05/24/13 14:36	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 14:36	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 14:36	1
Trichloroethene	**3.48**		1.00		ug/L			05/24/13 14:36	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/24/13 14:36*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/24/13 14:36*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/24/13 14:36*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/24/13 14:36*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: OB-06
Date Collected: 05/15/13 11:46
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 15:07	1
cis-1,2-Dichloroethene	**7.50**		1.00		ug/L			05/24/13 15:07	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 15:07	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 15:07	1
Trichloroethene	**40.1**		1.00		ug/L			05/24/13 15:07	1
Vinyl chloride	**2.56**		1.00		ug/L			05/24/13 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/24/13 15:07*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/24/13 15:07*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 15:07*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 15:07*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**114**		5.00		mg/L			05/24/13 21:03	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: OB-08
Date Collected: 05/15/13 18:00
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 15:38	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 15:38	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 15:38	1
trans-1,2-Dichloroethene	**8.29**		1.00		ug/L			05/24/13 15:38	1
Trichloroethene	ND		1.00		ug/L			05/24/13 15:38	1
Vinyl chloride	**5.72**		1.00		ug/L			05/24/13 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/24/13 15:38*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*05/24/13 15:38*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 15:38*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/24/13 15:38*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: TW-17
Date Collected: 05/14/13 12:55
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 17:12	1
cis-1,2-Dichloroethene	**556**		20.0		ug/L			05/25/13 22:09	20
Tetrachloroethene	ND		1.00		ug/L			05/24/13 17:12	1
trans-1,2-Dichloroethene	**1.22**		1.00		ug/L			05/24/13 17:12	1
Trichloroethene	**2.63**		1.00		ug/L			05/24/13 17:12	1
Vinyl chloride	**39.3**		1.00		ug/L			05/24/13 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/24/13 17:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/25/13 22:09*	*20*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*05/24/13 17:12*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/13 22:09*	*20*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*05/24/13 17:12*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 22:09*	*20*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 17:12*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/25/13 22:09*	*20*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/24/13 06:14	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: TW-20
Date Collected: 05/16/13 12:30
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/25/13 17:00	1
cis-1,2-Dichloroethene	**3.14**		1.00		ug/L			05/25/13 17:00	1
Tetrachloroethene	ND		1.00		ug/L			05/25/13 17:00	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 17:00	1
Trichloroethene	**72.3**		1.00		ug/L			05/25/13 17:00	1
Vinyl chloride	ND		1.00		ug/L			05/25/13 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/25/13 17:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/25/13 17:00*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/25/13 17:00*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 17:00*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**47.6**		1.00		mg/L			05/24/13 06:39	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: W-5
Date Collected: 05/16/13 09:30
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 18:14	1
cis-1,2-Dichloroethene	**75.0**		1.00		ug/L			05/24/13 18:14	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 18:14	1
trans-1,2-Dichloroethene	**10.6**		1.00		ug/L			05/24/13 18:14	1
Trichloroethene	**218**		20.0		ug/L			05/25/13 22:40	20
Vinyl chloride	**35.3**		1.00		ug/L			05/24/13 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*05/24/13 18:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/25/13 22:40*	*20*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/24/13 18:14*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*05/25/13 22:40*	*20*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/24/13 18:14*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/25/13 22:40*	*20*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 18:14*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/25/13 22:40*	*20*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**230**		5.00		mg/L			05/24/13 21:53	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: QAFB01
Date Collected: 05/16/13 18:22
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 23:23	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 23:23	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 23:23	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 23:23	1
Trichloroethene	ND		1.00		ug/L			05/24/13 23:23	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/24/13 23:23*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/24/13 23:23*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/24/13 23:23*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 23:23*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: DUP-01
Date Collected: 05/15/13 09:30
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 23:53	1
cis-1,2-Dichloroethene	**74.6**		1.00		ug/L			05/24/13 23:53	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 23:53	1
trans-1,2-Dichloroethene	**10.3**		1.00		ug/L			05/24/13 23:53	1
Trichloroethene	**228**		20.0		ug/L			05/25/13 23:11	20
Vinyl chloride	**33.8**		1.00		ug/L			05/24/13 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/24/13 23:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/25/13 23:11*	*20*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 23:53*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/25/13 23:11*	*20*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*05/24/13 23:53*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*05/25/13 23:11*	*20*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/24/13 23:53*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/25/13 23:11*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: QARB01
Date Collected: 05/16/13 14:47
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-17
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 10:59	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 10:59	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 10:59	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 10:59	1
Trichloroethene	ND		1.00		ug/L			05/24/13 10:59	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/24/13 10:59*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/24/13 10:59*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/24/13 10:59*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/24/13 10:59*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: QATB01
Date Collected: 05/14/13 00:01
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-18
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 10:28	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 10:28	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 10:28	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 10:28	1
Trichloroethene	ND		1.00		ug/L			05/24/13 10:28	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 10:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/24/13 10:28*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 10:28*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/24/13 10:28*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/24/13 10:28*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

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

Lab Sample ID: MB 490-81590/6
Matrix: Water
Analysis Batch: 81590

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 09:57	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Trichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/24/13 09:57*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/24/13 09:57*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/24/13 09:57*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/24/13 09:57*	*1*

Lab Sample ID: LCS 490-81590/3
Matrix: Water
Analysis Batch: 81590

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			50.0	57.34		ug/L		115	79 - 124		
cis-1,2-Dichloroethene			50.0	51.88		ug/L		104	76 - 125		
Tetrachloroethene			50.0	57.43		ug/L		115	80 - 126		
trans-1,2-Dichloroethene			50.0	57.47		ug/L		115	79 - 126		
Trichloroethene			50.0	57.05		ug/L		114	80 - 123		
Vinyl chloride			50.0	45.81		ug/L		92	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-81590/4
Matrix: Water
Analysis Batch: 81590

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			50.0	55.31		ug/L		111	79 - 124	4	17
cis-1,2-Dichloroethene			50.0	49.66		ug/L		99	76 - 125	4	17
Tetrachloroethene			50.0	57.01		ug/L		114	80 - 126	1	16
trans-1,2-Dichloroethene			50.0	54.97		ug/L		110	79 - 126	4	16
Trichloroethene			50.0	55.71		ug/L		111	80 - 123	2	17
Vinyl chloride			50.0	42.52		ug/L		85	68 - 120	7	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

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

Lab Sample ID: LCSD 490-81590/4
Matrix: Water
Analysis Batch: 81590

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 490-27025-4 MS
Matrix: Water
Analysis Batch: 81590

Client Sample ID: BR-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	9.47		50.0	76.57		ug/L		134	70 - 142
cis-1,2-Dichloroethene	772		50.0	799.7	E 4	ug/L		56	68 - 138
Tetrachloroethene	ND		50.0	62.38		ug/L		125	72 - 145
trans-1,2-Dichloroethene	97.4		50.0	157.5		ug/L		120	66 - 143
Trichloroethene	893		50.0	884.2	E 4	ug/L		-18	73 - 144
Vinyl chloride	72.5		50.0	126.8		ug/L		109	56 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 490-27025-4 MSD
Matrix: Water
Analysis Batch: 81590

Client Sample ID: BR-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	9.47		50.0	75.69		ug/L		132	70 - 142	1	17
cis-1,2-Dichloroethene	772		50.0	796.8	E 4	ug/L		50	68 - 138	0	17
Tetrachloroethene	ND		50.0	62.57		ug/L		125	72 - 145	0	16
trans-1,2-Dichloroethene	97.4		50.0	156.5		ug/L		118	66 - 143	1	16
Trichloroethene	893		50.0	877.0	E 4	ug/L		-32	73 - 144	1	17
Vinyl chloride	72.5		50.0	122.1		ug/L		99	56 - 129	4	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: MB 490-81658/6
Matrix: Water
Analysis Batch: 81658

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 22:21	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 22:21	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 22:21	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 22:21	1

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

Lab Sample ID: MB 490-81658/6
Matrix: Water
Analysis Batch: 81658

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.00		ug/L			05/24/13 22:21	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 22:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/24/13 22:21*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/24/13 22:21*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/24/13 22:21*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/24/13 22:21*	*1*

Lab Sample ID: LCS 490-81658/3
Matrix: Water
Analysis Batch: 81658

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	54.26		ug/L		109	79 - 124
cis-1,2-Dichloroethene	50.0	49.34		ug/L		99	76 - 125
Tetrachloroethene	50.0	55.18		ug/L		110	80 - 126
trans-1,2-Dichloroethene	50.0	55.45		ug/L		111	79 - 126
Trichloroethene	50.0	55.52		ug/L		111	80 - 123
Vinyl chloride	50.0	44.28		ug/L		89	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-81658/4
Matrix: Water
Analysis Batch: 81658

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	50.0	54.72		ug/L		109	79 - 124	1	17
cis-1,2-Dichloroethene	50.0	49.94		ug/L		100	76 - 125	1	17
Tetrachloroethene	50.0	55.73		ug/L		111	80 - 126	1	16
trans-1,2-Dichloroethene	50.0	56.44		ug/L		113	79 - 126	2	16
Trichloroethene	50.0	56.68		ug/L		113	80 - 123	2	17
Vinyl chloride	50.0	44.97		ug/L		90	68 - 120	2	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 490-81892/7
Matrix: Water
Analysis Batch: 81892

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Tetrachloroethene	ND		1.00		ug/L			05/25/13 15:58	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Trichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Vinyl chloride	ND		1.00		ug/L			05/25/13 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/25/13 15:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/25/13 15:58*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 15:58*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 15:58*	*1*

Lab Sample ID: LCS 490-81892/3
Matrix: Water
Analysis Batch: 81892

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			50.0	55.38		ug/L		111	79 - 124		
cis-1,2-Dichloroethene			50.0	50.95		ug/L		102	76 - 125		
Tetrachloroethene			50.0	56.16		ug/L		112	80 - 126		
trans-1,2-Dichloroethene			50.0	55.67		ug/L		111	79 - 126		
Trichloroethene			50.0	56.52		ug/L		113	80 - 123		
Vinyl chloride			50.0	45.76		ug/L		92	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 490-81892/4
Matrix: Water
Analysis Batch: 81892

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			50.0	54.40		ug/L		109	79 - 124	2	17
cis-1,2-Dichloroethene			50.0	50.09		ug/L		100	76 - 125	2	17
Tetrachloroethene			50.0	56.57		ug/L		113	80 - 126	1	16
trans-1,2-Dichloroethene			50.0	54.89		ug/L		110	79 - 126	1	16
Trichloroethene			50.0	56.03		ug/L		112	80 - 123	1	17
Vinyl chloride			50.0	44.83		ug/L		90	68 - 120	2	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCSD 490-81892/4
Matrix: Water
Analysis Batch: 81892

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-81559/3
Matrix: Water
Analysis Batch: 81559

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/23/13 22:19	1

Lab Sample ID: LCS 490-81559/4
Matrix: Water
Analysis Batch: 81559

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	49.69		mg/L		99	90 - 110

Lab Sample ID: LCSD 490-81559/5
Matrix: Water
Analysis Batch: 81559

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	50.0	49.09		mg/L		98	90 - 110	1	20

Lab Sample ID: 490-27025-D-10 MS
Matrix: Water
Analysis Batch: 81559

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	167		50.0	212.6	E	mg/L		92	80 - 120

Lab Sample ID: 490-27025-D-8 DU
Matrix: Water
Analysis Batch: 81559

Client Sample ID: 490-27025-D-8 DU
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	141		129.2	E	mg/L		8	20

Lab Sample ID: MB 490-81744/6
Matrix: Water
Analysis Batch: 81744

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/24/13 13:58	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 490-81744/7
Matrix: Water
Analysis Batch: 81744

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			50.0	49.91		mg/L		100	90 - 110		

Lab Sample ID: LCSD 490-81744/8
Matrix: Water
Analysis Batch: 81744

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			50.0	50.14		mg/L		100	90 - 110	0	20

Lab Sample ID: 490-27374-B-5 MS
Matrix: Water
Analysis Batch: 81744

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	4.94		50.0	52.89		mg/L		96	80 - 120		

Lab Sample ID: 490-27374-B-5 DU
Matrix: Water
Analysis Batch: 81744

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	4.94			4.909		mg/L				0.7	20

GC/MS VOA

Analysis Batch: 81590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-1	BR-01	Total/NA	Water	8260B	
490-27025-3	BR-03	Total/NA	Water	8260B	
490-27025-4	BR-04	Total/NA	Water	8260B	
490-27025-4 MS	BR-04	Total/NA	Water	8260B	
490-27025-4 MSD	BR-04	Total/NA	Water	8260B	
490-27025-5	BR-10	Total/NA	Water	8260B	
490-27025-7	OB-04	Total/NA	Water	8260B	
490-27025-8	OB-06	Total/NA	Water	8260B	
490-27025-9	OB-08	Total/NA	Water	8260B	
490-27025-12	TW-17	Total/NA	Water	8260B	
490-27025-14	W-5	Total/NA	Water	8260B	
490-27025-17	QARB01	Total/NA	Water	8260B	
490-27025-18	QATB01	Total/NA	Water	8260B	
LCS 490-81590/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-81590/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-81590/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 81658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-15	QAFB01	Total/NA	Water	8260B	
490-27025-16	DUP-01	Total/NA	Water	8260B	
LCS 490-81658/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-81658/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-81658/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 81892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-1	BR-01	Total/NA	Water	8260B	
490-27025-2	BR-02	Total/NA	Water	8260B	
490-27025-2	BR-02	Total/NA	Water	8260B	
490-27025-3	BR-03	Total/NA	Water	8260B	
490-27025-4	BR-04	Total/NA	Water	8260B	
490-27025-5	BR-10	Total/NA	Water	8260B	
490-27025-12	TW-17	Total/NA	Water	8260B	
490-27025-13	TW-20	Total/NA	Water	8260B	
490-27025-14	W-5	Total/NA	Water	8260B	
490-27025-16	DUP-01	Total/NA	Water	8260B	
LCS 490-81892/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-81892/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-81892/7	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 81559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-12	TW-17	Total/NA	Water	300.0	
490-27025-13	TW-20	Total/NA	Water	300.0	
490-27025-D-8 DU	490-27025-D-8 DU	Total/NA	Water	300.0	
490-27025-D-10 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 490-81559/4	Lab Control Sample	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 81559 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 490-81559/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-81559/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 81744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-8	OB-06	Total/NA	Water	300.0	
490-27025-14	W-5	Total/NA	Water	300.0	
490-27374-B-5 DU	Duplicate	Total/NA	Water	300.0	
490-27374-B-5 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 490-81744/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-81744/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-81744/6	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: BR-01

Lab Sample ID: 490-27025-1

Date Collected: 05/15/13 18:00

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 11:30	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 19:04	AF	TAL NSH

Client Sample ID: BR-02

Lab Sample ID: 490-27025-2

Date Collected: 05/16/13 11:25

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81892	05/25/13 19:35	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 20:06	AF	TAL NSH

Client Sample ID: BR-03

Lab Sample ID: 490-27025-3

Date Collected: 05/16/13 14:42

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 12:32	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 20:37	AF	TAL NSH

Client Sample ID: BR-04

Lab Sample ID: 490-27025-4

Date Collected: 05/15/13 14:00

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 13:03	AF	TAL NSH
Total/NA	Analysis	8260B		50	81892	05/25/13 21:07	AF	TAL NSH

Client Sample ID: BR-10

Lab Sample ID: 490-27025-5

Date Collected: 05/15/13 16:15

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 13:34	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 21:38	AF	TAL NSH

Client Sample ID: OB-04

Lab Sample ID: 490-27025-7

Date Collected: 05/15/13 09:55

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 14:36	AF	TAL NSH

Client Sample ID: OB-06

Lab Sample ID: 490-27025-8

Date Collected: 05/15/13 11:46

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 15:07	AF	TAL NSH
Total/NA	Analysis	300.0		5	81744	05/24/13 21:03	HT	TAL NSH

Client Sample ID: OB-08

Lab Sample ID: 490-27025-9

Date Collected: 05/15/13 18:00

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 15:38	AF	TAL NSH

Client Sample ID: TW-17

Lab Sample ID: 490-27025-12

Date Collected: 05/14/13 12:55

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 17:12	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 22:09	AF	TAL NSH
Total/NA	Analysis	300.0		1	81559	05/24/13 06:14	JS	TAL NSH

Client Sample ID: TW-20

Lab Sample ID: 490-27025-13

Date Collected: 05/16/13 12:30

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81892	05/25/13 17:00	AF	TAL NSH
Total/NA	Analysis	300.0		1	81559	05/24/13 06:39	JS	TAL NSH

Client Sample ID: W-5

Lab Sample ID: 490-27025-14

Date Collected: 05/16/13 09:30

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 18:14	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 22:40	AF	TAL NSH
Total/NA	Analysis	300.0		5	81744	05/24/13 21:53	HT	TAL NSH

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Client Sample ID: QAFB01

Lab Sample ID: 490-27025-15

Date Collected: 05/16/13 18:22

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81658	05/24/13 23:23	AF	TAL NSH

Client Sample ID: DUP-01

Lab Sample ID: 490-27025-16

Date Collected: 05/15/13 09:30

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81658	05/24/13 23:53	AF	TAL NSH
Total/NA	Analysis	8260B		20	81892	05/25/13 23:11	AF	TAL NSH

Client Sample ID: QARB01

Lab Sample ID: 490-27025-17

Date Collected: 05/16/13 14:47

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 10:59	AF	TAL NSH

Client Sample ID: QATB01

Lab Sample ID: 490-27025-18

Date Collected: 05/14/13 00:01

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 10:28	AF	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-1

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-13 *
California	NELAP	9	1168CA	10-31-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-10-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	05-31-14 *
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-27025 Chain of Custody

Cooler Received/Opened On 5/18/2013 @ 0850

1. Tracking # 4317 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 18290455

2. Temperature of rep. sample or temp blank when opened: 2.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ✓

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) DA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) DA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) DA

I certify that I attached a label with the unique LIMS number to each container (intial) DA

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#_____

BIS = Broken in shipment

Chain of Custody Record

Loc: 490
27025

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2013

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Car	COC No: 490-11072-112.1
Client Contact: Mr. Joe Deatherage	Phone: 865-287-4625	E-Mail: shali.brown@testamericainc.com	Inc.	Page: Page 1 of 2
Company: AMEC Environment & Infrastructure, Inc.				Job #:
Address: 9725 Cogdill Road	Due Date Requested:			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE 1,1-DCE cis/trans 1,2	300_ORGFM_28D - Sulfate	Total Number of containers	Special Instructions/Note:
				Preservation Code:				A	N		
1	BR-01	5/15/13	1800	G	Water			X			
2	BR-02	5/16/13	1125	G	Water			X			
3	BR-03	5/16/13	1442	G	Water			X			
4	BR-04	5/15/13	1400	G	Water			X			
5	BR-10	5/15/13	1615	G	Water			X			
6	BR-15	5/14/13	1319	G	Water			X			
7	OB-04	5/15/13	0955	G	Water			X			
8	OB-06	5/15/13	1146	G	Water			X	X		
9	OB-08	5/14/13	1800	G	Water			X			
10	TW-04	5/14/13	1623	G	Water			X	X		
11	TW-09	5/14/13	1000	G	Water			X	1		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Courtney Price	1600 5/16/13		Courtney Price	5/17/13 0900	TA BUFFALO
2	[illegible]	1600 5-17-13	TA Buffalo	[illegible]	5-18-13 0850	TA-K
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.8 2.9

Chain of Custody Record

Loc: 490
27025

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2013

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Carr	COC No: 490-11072-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-207-4625	E-Mail: shali.brown@testamericainc.com		Page: Page 2 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 9725 Cogdill Road	Due Date Requested:			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TN, 37932				Other:
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE 1,1-DCE cis/trans 1,2	300_ORGFM_28D - Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
12 TW-17	5/16/13	1255	G	Water			X	X		
13 TW-20	5/16/13	1230	G	Water			X	X		
14 W-5	5/16/13	0930	G	Water			X	X		
15 QAFB01	5/15/13	1822	G	Water			X			
16 ~~Duplicate~~ DUP-01	5/16/13	0930	G	Water			X			
17 BR-04 (MS)	5/15/13	1400	G	Water			X			
18 BR-04 (MSD)	5/15/13	1400	G	Water			X			
19 QARB01	5/16/13	1447	G	Water			X			
20 ~~Extra Set~~ QATB01	~~5/~~	—	G	Water			X			
~~Extra Set~~				Water						
~~TW-04~~				Water						

Cap

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5/16/13 1600		[signature]	5/17/13 0900	TA BUFFALO
2	[signature]	5-17-13 1650	TA BUFFALO	[signature]	5-18-13 0850	TAN
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.8 2.9

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Chain of Custody Record

TestAmerica

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 490-11072-112.1
Client Contact: Mr. Joe Deatherage	Phone: 865-207-4625	E-Mail: shali.brown@testamericainc.com		Page: Page 1 of 2
Company: AMEC Environment & Infrastructure, Inc.				Job #
Address: 9725 Cogdill Road	Due Date Requested:			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE 1,1-DCE cis/trans 1,2	300_ORGFM_28D - Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
BR-01	5/15/13	1800	G	Water			X			
BR-02	5/16/13	1125	G	Water			X			
BR-03	5/16/13	1442	G	Water			X			
BR-04	5/15/13	1400	G	Water			X			
BR-10	5/15/13	1615	G	Water			X			
~~BR-15~~	~~5/14/13~~	~~1319~~	~~G~~	~~Water~~			~~X~~			
OB-04	5/15/13	0955	G	Water			X			
OB-06	5/15/13	1146	G	Water			X	X		
OB-08	5/14/13	1800	G	Water			X			
~~TW-04~~	~~5/14/13~~	~~1623~~	~~G~~	~~Water~~			~~X~~	~~X~~		
~~TW-09~~	~~5/14/13~~	~~1000~~	~~G~~	~~Water~~			~~X~~	~~X~~		

Possible Hazard Identification

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Courtney Price	Date/Time: 1600 5/16/13	Company	Received by: [signature] Date/Time: 5/17/13 0900 Company: TA BUFFALO
Relinquished by:	Date/Time:	Company	Received by: [signature] Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.8

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5/30/2013

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 490-27025-1

Login Number: 27025

List Source: TestAmerica Nashville

List Number: 1

Creator: Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-27025-2
Client Project/Site: Former Taylor Instruments

For:
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

Attn: Mr. Joe Deatherage

Authorized for release by:
5/30/2013 1:04:11 PM

Shali Brown, Project Manager I
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-27025-6	BR-15	Water	05/14/13 13:19	05/18/13 08:50
490-27025-10	TW-04	Water	05/14/13 16:23	05/18/13 08:50
490-27025-11	TW-09	Water	05/14/13 10:00	05/18/13 08:50

Job ID: 490-27025-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-27025-2

Comments
Samples BR-15, TW-04, and TW-09 are contained in this report. For additional samples on the chain of custody please reference report: 490-27025-1.

Receipt
The samples were received on 5/18/2013 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 81590 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 81892.

No other analytical or quality issues were noted.

HPLC
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

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

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Client Sample ID: BR-15
Date Collected: 05/14/13 13:19
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/25/13 16:29	1
cis-1,2-Dichloroethene	**1.53**		1.00		ug/L			05/25/13 16:29	1
Tetrachloroethene	ND		1.00		ug/L			05/25/13 16:29	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 16:29	1
Trichloroethene	ND		1.00		ug/L			05/25/13 16:29	1
Vinyl chloride	**7.51**		1.00		ug/L			05/25/13 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/25/13 16:29*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/13 16:29*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*05/25/13 16:29*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 16:29*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Client Sample ID: TW-04
Date Collected: 05/14/13 16:23
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 16:09	1
cis-1,2-Dichloroethene	**1.13**		1.00		ug/L			05/24/13 16:09	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 16:09	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 16:09	1
Trichloroethene	ND		1.00		ug/L			05/24/13 16:09	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/24/13 16:09*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 16:09*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*05/24/13 16:09*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/24/13 16:09*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**141**		5.00		mg/L			05/24/13 21:28	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Client Sample ID: TW-09
Date Collected: 05/14/13 10:00
Date Received: 05/18/13 08:50

Lab Sample ID: 490-27025-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 16:40	1
cis-1,2-Dichloroethene	**2.91**		1.00		ug/L			05/24/13 16:40	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 16:40	1
trans-1,2-Dichloroethene	**5.58**		1.00		ug/L			05/24/13 16:40	1
Trichloroethene	**4.05**		1.00		ug/L			05/24/13 16:40	1
Vinyl chloride	**3.49**		1.00		ug/L			05/24/13 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/24/13 16:40*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/24/13 16:40*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*05/24/13 16:40*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/24/13 16:40*	*1*

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

Lab Sample ID: MB 490-81590/6
Matrix: Water
Analysis Batch: 81590

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Tetrachloroethene	ND		1.00		ug/L			05/24/13 09:57	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Trichloroethene	ND		1.00		ug/L			05/24/13 09:57	1
Vinyl chloride	ND		1.00		ug/L			05/24/13 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/24/13 09:57*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/24/13 09:57*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/24/13 09:57*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/24/13 09:57*	*1*

Lab Sample ID: LCS 490-81590/3
Matrix: Water
Analysis Batch: 81590

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	54.89		ug/L		110	74 - 135
1,1,1-Trichloroethane	50.0	55.20		ug/L		110	78 - 135
1,1,2,2-Tetrachloroethane	50.0	47.30		ug/L		95	69 - 131
1,1,2-Trichloroethane	50.0	49.16		ug/L		98	80 - 124
1,1-Dichloroethane	50.0	55.74		ug/L		111	78 - 125
1,1-Dichloroethene	50.0	57.34		ug/L		115	79 - 124
1,1-Dichloropropene	50.0	57.23		ug/L		114	80 - 122
1,2,3-Trichlorobenzene	50.0	52.30		ug/L		105	62 - 133
1,2,3-Trichloropropane	50.0	45.98		ug/L		92	70 - 131
1,2,4-Trichlorobenzene	50.0	51.03		ug/L		102	63 - 133
1,2,4-Trimethylbenzene	50.0	55.46		ug/L		111	77 - 126
1,2-Dibromo-3-Chloropropane	50.0	45.68		ug/L		91	54 - 125
1,2-Dibromoethane (EDB)	50.0	52.79		ug/L		106	80 - 129
1,2-Dichlorobenzene	50.0	52.24		ug/L		104	80 - 121
1,2-Dichloroethane	50.0	49.47		ug/L		99	77 - 121
1,2-Dichloropropane	50.0	53.47		ug/L		107	75 - 120
1,3,5-Trimethylbenzene	50.0	58.02		ug/L		116	77 - 127
1,3-Dichlorobenzene	50.0	52.76		ug/L		106	80 - 122
1,3-Dichloropropane	50.0	53.15		ug/L		106	80 - 125
1,4-Dichlorobenzene	50.0	51.86		ug/L		104	80 - 120
2,2-Dichloropropane	50.0	56.30		ug/L		113	43 - 161
2-Butanone (MEK)	250	245.4		ug/L		98	62 - 133
2-Chlorotoluene	50.0	54.44		ug/L		109	75 - 126
2-Hexanone	250	253.0		ug/L		101	60 - 142
4-Chlorotoluene	50.0	54.71		ug/L		109	75 - 130
4-Methyl-2-pentanone (MIBK)	250	249.2		ug/L		100	60 - 137
Acetone	250	290.2		ug/L		116	54 - 145
Benzene	50.0	53.72		ug/L		107	80 - 121
Bromobenzene	50.0	49.55		ug/L		99	68 - 130
Bromochloromethane	50.0	60.92		ug/L		122	78 - 129

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

Lab Sample ID: LCS 490-81590/3
Matrix: Water
Analysis Batch: 81590

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	54.21		ug/L		108	75 - 129
Bromoform	50.0	57.24		ug/L		114	46 - 145
Bromomethane	50.0	65.39		ug/L		131	41 - 150
Carbon disulfide	50.0	50.95		ug/L		102	77 - 126
Carbon tetrachloride	50.0	54.81		ug/L		110	64 - 147
Chlorobenzene	50.0	53.24		ug/L		106	80 - 120
Chlorodibromomethane	50.0	55.51		ug/L		111	69 - 133
Chloroethane	50.0	51.73		ug/L		103	72 - 120
Chloroform	50.0	49.90		ug/L		100	73 - 129
Chloromethane	50.0	58.79		ug/L		118	12 - 150
cis-1,2-Dichloroethene	50.0	51.88		ug/L		104	76 - 125
cis-1,3-Dichloropropene	50.0	56.14		ug/L		112	74 - 140
Dibromomethane	50.0	52.79		ug/L		106	71 - 125
Dichlorodifluoromethane	50.0	40.36		ug/L		81	37 - 127
Ethylbenzene	50.0	56.49		ug/L		113	80 - 130
Hexachlorobutadiene	50.0	54.58		ug/L		109	49 - 146
Isopropylbenzene	50.0	58.91		ug/L		118	80 - 141
Methyl tert-butyl ether	50.0	51.08		ug/L		102	72 - 133
Methylene Chloride	50.0	53.73		ug/L		107	79 - 123
Naphthalene	50.0	40.34		ug/L		81	62 - 138
n-Butylbenzene	50.0	56.04		ug/L		112	68 - 132
N-Propylbenzene	50.0	55.19		ug/L		110	75 - 129
p-Isopropyltoluene	50.0	57.97		ug/L		116	75 - 128
sec-Butylbenzene	50.0	57.52		ug/L		115	76 - 128
Styrene	50.0	59.65		ug/L		119	80 - 127
tert-Butylbenzene	50.0	58.62		ug/L		117	76 - 126
Tetrachloroethene	50.0	57.43		ug/L		115	80 - 126
Toluene	50.0	55.07		ug/L		110	80 - 126
trans-1,2-Dichloroethene	50.0	57.47		ug/L		115	79 - 126
trans-1,3-Dichloropropene	50.0	53.72		ug/L		107	63 - 134
Trichloroethene	50.0	57.05		ug/L		114	80 - 123
Trichlorofluoromethane	50.0	46.31		ug/L		93	65 - 124
Vinyl chloride	50.0	45.81		ug/L		92	68 - 120
Xylenes, Total	150	170.2		ug/L		113	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-81590/4
Matrix: Water
Analysis Batch: 81590

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	53.44		ug/L		107	74 - 135	3	16
1,1,1-Trichloroethane	50.0	50.94		ug/L		102	78 - 135	8	17

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

Lab Sample ID: LCSD 490-81590/4
Matrix: Water
Analysis Batch: 81590

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	50.0	45.97		ug/L		92	69 - 131	3	20
1,1,2-Trichloroethane	50.0	49.14		ug/L		98	80 - 124	0	15
1,1-Dichloroethane	50.0	52.67		ug/L		105	78 - 125	6	17
1,1-Dichloroethene	50.0	55.31		ug/L		111	79 - 124	4	17
1,1-Dichloropropene	50.0	55.44		ug/L		111	80 - 122	3	17
1,2,3-Trichlorobenzene	50.0	52.38		ug/L		105	62 - 133	0	25
1,2,3-Trichloropropane	50.0	44.28		ug/L		89	70 - 131	4	19
1,2,4-Trichlorobenzene	50.0	52.56		ug/L		105	63 - 133	3	19
1,2,4-Trimethylbenzene	50.0	54.58		ug/L		109	77 - 126	2	16
1,2-Dibromo-3-Chloropropane	50.0	46.31		ug/L		93	54 - 125	1	24
1,2-Dibromoethane (EDB)	50.0	53.35		ug/L		107	80 - 129	1	15
1,2-Dichlorobenzene	50.0	50.77		ug/L		102	80 - 121	3	15
1,2-Dichloroethane	50.0	48.25		ug/L		96	77 - 121	2	17
1,2-Dichloropropane	50.0	51.90		ug/L		104	75 - 120	3	17
1,3,5-Trimethylbenzene	50.0	54.87		ug/L		110	77 - 127	6	17
1,3-Dichlorobenzene	50.0	51.61		ug/L		103	80 - 122	2	15
1,3-Dichloropropane	50.0	52.14		ug/L		104	80 - 125	2	14
1,4-Dichlorobenzene	50.0	50.15		ug/L		100	80 - 120	3	15
2,2-Dichloropropane	50.0	55.44		ug/L		111	43 - 161	2	18
2-Butanone (MEK)	250	238.4		ug/L		95	62 - 133	3	19
2-Chlorotoluene	50.0	52.11		ug/L		104	75 - 126	4	17
2-Hexanone	250	251.5		ug/L		101	60 - 142	1	15
4-Chlorotoluene	50.0	52.23		ug/L		104	75 - 130	5	18
4-Methyl-2-pentanone (MIBK)	250	249.5		ug/L		100	60 - 137	0	17
Acetone	250	286.5		ug/L		115	54 - 145	1	21
Benzene	50.0	52.06		ug/L		104	80 - 121	3	17
Bromobenzene	50.0	47.44		ug/L		95	68 - 130	4	20
Bromochloromethane	50.0	59.27		ug/L		119	78 - 129	3	17
Bromodichloromethane	50.0	53.10		ug/L		106	75 - 129	2	18
Bromoform	50.0	56.75		ug/L		113	46 - 145	1	16
Bromomethane	50.0	66.35		ug/L		133	41 - 150	1	50
Carbon disulfide	50.0	48.63		ug/L		97	77 - 126	5	21
Carbon tetrachloride	50.0	54.30		ug/L		109	64 - 147	1	19
Chlorobenzene	50.0	52.30		ug/L		105	80 - 120	2	14
Chlorodibromomethane	50.0	55.08		ug/L		110	69 - 133	1	15
Chloroethane	50.0	47.89		ug/L		96	72 - 120	8	20
Chloroform	50.0	47.72		ug/L		95	73 - 129	4	18
Chloromethane	50.0	52.36		ug/L		105	12 - 150	12	31
cis-1,2-Dichloroethene	50.0	49.66		ug/L		99	76 - 125	4	17
cis-1,3-Dichloropropene	50.0	55.73		ug/L		111	74 - 140	1	15
Dibromomethane	50.0	52.47		ug/L		105	71 - 125	1	16
Dichlorodifluoromethane	50.0	36.85		ug/L		74	37 - 127	9	18
Ethylbenzene	50.0	54.99		ug/L		110	80 - 130	3	15
Hexachlorobutadiene	50.0	52.34		ug/L		105	49 - 146	4	23
Isopropylbenzene	50.0	58.30		ug/L		117	80 - 141	1	16
Methyl tert-butyl ether	50.0	50.45		ug/L		101	72 - 133	1	16
Methylene Chloride	50.0	51.75		ug/L		104	79 - 123	4	17
Naphthalene	50.0	41.12		ug/L		82	62 - 138	2	26

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

Lab Sample ID: LCSD 490-81590/4
Matrix: Water
Analysis Batch: 81590

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene			50.0	54.32		ug/L		109	68 - 132	3	18
N-Propylbenzene			50.0	52.55		ug/L		105	75 - 129	5	17
p-Isopropyltoluene			50.0	55.96		ug/L		112	75 - 128	4	16
sec-Butylbenzene			50.0	55.16		ug/L		110	76 - 128	4	16
Styrene			50.0	59.01		ug/L		118	80 - 127	1	24
tert-Butylbenzene			50.0	56.02		ug/L		112	76 - 126	5	16
Tetrachloroethene			50.0	57.01		ug/L		114	80 - 126	1	16
Toluene			50.0	54.26		ug/L		109	80 - 126	1	15
trans-1,2-Dichloroethene			50.0	54.97		ug/L		110	79 - 126	4	16
trans-1,3-Dichloropropene			50.0	53.25		ug/L		106	63 - 134	1	14
Trichloroethene			50.0	55.71		ug/L		111	80 - 123	2	17
Trichlorofluoromethane			50.0	44.03		ug/L		88	65 - 124	5	18
Vinyl chloride			50.0	42.52		ug/L		85	68 - 120	7	17
Xylenes, Total			150	168.1		ug/L		112	80 - 132	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 490-27025-A-4 MS
Matrix: Water
Analysis Batch: 81590

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		50.0	60.37		ug/L		121	73 - 141
1,1,1-Trichloroethane	ND		50.0	58.96		ug/L		118	76 - 149
1,1,2,2-Tetrachloroethane	ND		50.0	50.78		ug/L		102	56 - 143
1,1,2-Trichloroethane	ND		50.0	54.96		ug/L		110	74 - 134
1,1-Dichloroethane	ND		50.0	63.69		ug/L		127	71 - 139
1,1-Dichloroethene	9.47		50.0	76.57		ug/L		134	70 - 142
1,1-Dichloropropene	ND		50.0	61.53		ug/L		123	76 - 139
1,2,3-Trichlorobenzene	ND		50.0	55.39		ug/L		111	55 - 138
1,2,3-Trichloropropane	ND		50.0	49.23		ug/L		98	53 - 144
1,2,4-Trichlorobenzene	ND		50.0	58.31		ug/L		117	60 - 136
1,2,4-Trimethylbenzene	ND		50.0	55.73		ug/L		111	69 - 136
1,2-Dibromo-3-Chloropropane	ND		50.0	49.00		ug/L		98	52 - 126
1,2-Dibromoethane (EDB)	ND		50.0	57.28		ug/L		115	75 - 137
1,2-Dichlorobenzene	ND		50.0	54.23		ug/L		108	79 - 128
1,2-Dichloroethane	ND		50.0	54.75		ug/L		110	64 - 136
1,2-Dichloropropane	ND		50.0	56.19		ug/L		112	67 - 131
1,3,5-Trimethylbenzene	ND		50.0	58.00		ug/L		116	69 - 139
1,3-Dichlorobenzene	ND		50.0	55.52		ug/L		111	77 - 131
1,3-Dichloropropane	ND		50.0	57.03		ug/L		114	72 - 134
1,4-Dichlorobenzene	ND		50.0	53.61		ug/L		107	78 - 126
2,2-Dichloropropane	ND		50.0	48.36		ug/L		97	37 - 175
2-Butanone (MEK)	ND		250	450.0	F	ug/L		180	50 - 138

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

Lab Sample ID: 490-27025-A-4 MS
Matrix: Water
Analysis Batch: 81590

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND		50.0	55.07		ug/L		110	67 - 138
2-Hexanone	ND		250	296.8		ug/L		119	50 - 150
4-Chlorotoluene	ND		50.0	55.96		ug/L		112	69 - 138
4-Methyl-2-pentanone (MIBK)	ND		250	296.6		ug/L		119	50 - 147
Acetone	ND		250	286.1		ug/L		114	45 - 141
Benzene	ND		50.0	58.88		ug/L		118	75 - 133
Bromobenzene	ND		50.0	50.72		ug/L		101	60 - 138
Bromochloromethane	ND		50.0	56.84		ug/L		114	67 - 139
Bromodichloromethane	ND		50.0	58.70		ug/L		117	70 - 140
Bromoform	ND		50.0	62.54		ug/L		125	42 - 147
Bromomethane	ND		50.0	53.10		ug/L		106	16 - 163
Carbon disulfide	ND		50.0	57.18		ug/L		114	48 - 152
Carbon tetrachloride	ND		50.0	64.10		ug/L		128	62 - 164
Chlorobenzene	ND		50.0	57.24		ug/L		114	80 - 129
Chlorodibromomethane	ND		50.0	59.44		ug/L		119	66 - 140
Chloroethane	ND		50.0	51.74		ug/L		103	58 - 137
Chloroform	ND		50.0	53.82		ug/L		108	66 - 138
Chloromethane	ND		50.0	37.94		ug/L		76	10 - 169
cis-1,2-Dichloroethene	772	E	50.0	799.7	E 4	ug/L		56	68 - 138
cis-1,3-Dichloropropene	ND		50.0	56.88		ug/L		114	71 - 141
Dibromomethane	ND		50.0	56.75		ug/L		114	58 - 140
Dichlorodifluoromethane	ND		50.0	39.81		ug/L		80	40 - 127
Ethylbenzene	ND		50.0	59.79		ug/L		120	79 - 139
Hexachlorobutadiene	ND		50.0	56.67		ug/L		113	45 - 155
Isopropylbenzene	ND		50.0	63.06		ug/L		126	80 - 153
Methyl tert-butyl ether	ND		50.0	56.07		ug/L		112	66 - 141
Methylene Chloride	ND		50.0	57.60		ug/L		115	64 - 139
Naphthalene	ND		50.0	46.75		ug/L		93	55 - 140
n-Butylbenzene	ND		50.0	58.07		ug/L		116	66 - 141
N-Propylbenzene	ND		50.0	56.52		ug/L		113	69 - 142
p-Isopropyltoluene	ND		50.0	59.41		ug/L		119	71 - 137
sec-Butylbenzene	ND		50.0	59.27		ug/L		119	73 - 138
Styrene	ND		50.0	63.03		ug/L		126	61 - 148
tert-Butylbenzene	ND		50.0	59.80		ug/L		120	70 - 138
Tetrachloroethene	ND		50.0	62.38		ug/L		125	72 - 145
Toluene	ND		50.0	58.41		ug/L		117	75 - 136
trans-1,2-Dichloroethene	97.4		50.0	157.5		ug/L		120	66 - 143
trans-1,3-Dichloropropene	ND		50.0	55.22		ug/L		110	59 - 135
Trichloroethene	893	E	50.0	884.2	E 4	ug/L		-18	73 - 144
Trichlorofluoromethane	ND		50.0	51.33		ug/L		103	58 - 139
Vinyl chloride	72.5		50.0	126.8		ug/L		109	56 - 129
Xylenes, Total	ND		150	181.0		ug/L		121	74 - 141

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

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

Lab Sample ID: 490-27025-A-4 MSD
Matrix: Water
Analysis Batch: 81590

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.0	58.86		ug/L		118	73 - 141	3	16
1,1,1-Trichloroethane	ND		50.0	60.23		ug/L		120	76 - 149	2	17
1,1,2,2-Tetrachloroethane	ND		50.0	53.18		ug/L		106	56 - 143	5	20
1,1,2-Trichloroethane	ND		50.0	54.18		ug/L		108	74 - 134	1	15
1,1-Dichloroethane	ND		50.0	62.65		ug/L		125	71 - 139	2	17
1,1-Dichloroethene	9.47		50.0	75.69		ug/L		132	70 - 142	1	17
1,1-Dichloropropene	ND		50.0	62.95		ug/L		126	76 - 139	2	17
1,2,3-Trichlorobenzene	ND		50.0	61.57		ug/L		123	55 - 138	11	25
1,2,3-Trichloropropane	ND		50.0	51.32		ug/L		103	53 - 144	4	19
1,2,4-Trichlorobenzene	ND		50.0	61.57		ug/L		123	60 - 136	5	19
1,2,4-Trimethylbenzene	ND		50.0	57.62		ug/L		115	69 - 136	3	16
1,2-Dibromo-3-Chloropropane	ND		50.0	50.52		ug/L		101	52 - 126	3	24
1,2-Dibromoethane (EDB)	ND		50.0	58.40		ug/L		117	75 - 137	2	15
1,2-Dichlorobenzene	ND		50.0	54.93		ug/L		110	79 - 128	1	15
1,2-Dichloroethane	ND		50.0	54.27		ug/L		109	64 - 136	1	17
1,2-Dichloropropane	ND		50.0	55.43		ug/L		111	67 - 131	1	17
1,3,5-Trimethylbenzene	ND		50.0	59.68		ug/L		119	69 - 139	3	17
1,3-Dichlorobenzene	ND		50.0	55.68		ug/L		111	77 - 131	0	15
1,3-Dichloropropane	ND		50.0	57.40		ug/L		115	72 - 134	1	14
1,4-Dichlorobenzene	ND		50.0	54.69		ug/L		109	78 - 126	2	15
2,2-Dichloropropane	ND		50.0	48.13		ug/L		96	37 - 175	0	18
2-Butanone (MEK)	ND		250	443.6	F	ug/L		177	50 - 138	1	19
2-Chlorotoluene	ND		50.0	56.51		ug/L		113	67 - 138	3	17
2-Hexanone	ND		250	310.1		ug/L		124	50 - 150	4	15
4-Chlorotoluene	ND		50.0	56.77		ug/L		114	69 - 138	1	18
4-Methyl-2-pentanone (MIBK)	ND		250	305.1		ug/L		122	50 - 147	3	17
Acetone	ND		250	289.7		ug/L		116	45 - 141	1	21
Benzene	ND		50.0	58.10		ug/L		116	75 - 133	1	17
Bromobenzene	ND		50.0	51.94		ug/L		104	60 - 138	2	20
Bromochloromethane	ND		50.0	56.21		ug/L		112	67 - 139	1	17
Bromodichloromethane	ND		50.0	58.58		ug/L		117	70 - 140	0	18
Bromoform	ND		50.0	63.57		ug/L		127	42 - 147	2	16
Bromomethane	ND		50.0	56.09		ug/L		112	16 - 163	5	50
Carbon disulfide	ND		50.0	56.67		ug/L		113	48 - 152	1	21
Carbon tetrachloride	ND		50.0	63.21		ug/L		126	62 - 164	1	19
Chlorobenzene	ND		50.0	57.37		ug/L		115	80 - 129	0	14
Chlorodibromomethane	ND		50.0	59.63		ug/L		119	66 - 140	0	15
Chloroethane	ND		50.0	49.41		ug/L		99	58 - 137	5	20
Chloroform	ND		50.0	53.89		ug/L		108	66 - 138	0	18
Chloromethane	ND		50.0	40.59		ug/L		81	10 - 169	7	31
cis-1,2-Dichloroethene	772	E	50.0	796.8	E 4	ug/L		50	68 - 138	0	17
cis-1,3-Dichloropropene	ND		50.0	57.50		ug/L		115	71 - 141	1	15
Dibromomethane	ND		50.0	56.94		ug/L		114	58 - 140	0	16
Dichlorodifluoromethane	ND		50.0	38.26		ug/L		77	40 - 127	4	18
Ethylbenzene	ND		50.0	60.78		ug/L		122	79 - 139	2	15
Hexachlorobutadiene	ND		50.0	58.18		ug/L		116	45 - 155	3	23
Isopropylbenzene	ND		50.0	63.78		ug/L		128	80 - 153	1	16
Methyl tert-butyl ether	ND		50.0	59.10		ug/L		118	66 - 141	5	16

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

Lab Sample ID: 490-27025-A-4 MSD
Matrix: Water
Analysis Batch: 81590

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	ND		50.0	57.88		ug/L		116	64 - 139	0	17
Naphthalene	ND		50.0	49.49		ug/L		99	55 - 140	6	26
n-Butylbenzene	ND		50.0	59.76		ug/L		120	66 - 141	3	18
N-Propylbenzene	ND		50.0	57.58		ug/L		115	69 - 142	2	17
p-Isopropyltoluene	ND		50.0	60.78		ug/L		122	71 - 137	2	16
sec-Butylbenzene	ND		50.0	60.58		ug/L		121	73 - 138	2	16
Styrene	ND		50.0	63.83		ug/L		128	61 - 148	1	24
tert-Butylbenzene	ND		50.0	61.51		ug/L		123	70 - 138	3	16
Tetrachloroethene	ND		50.0	62.57		ug/L		125	72 - 145	0	16
Toluene	ND		50.0	59.01		ug/L		118	75 - 136	1	15
trans-1,2-Dichloroethene	97.4		50.0	156.5		ug/L		118	66 - 143	1	16
trans-1,3-Dichloropropene	ND		50.0	56.61		ug/L		113	59 - 135	2	14
Trichloroethene	893	E	50.0	877.0	E 4	ug/L		-32	73 - 144	1	17
Trichlorofluoromethane	ND		50.0	51.13		ug/L		102	58 - 139	0	18
Vinyl chloride	72.5		50.0	122.1		ug/L		99	56 - 129	4	17
Xylenes, Total	ND		150	181.3		ug/L		121	74 - 141	0	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: MB 490-81892/7
Matrix: Water
Analysis Batch: 81892

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Tetrachloroethene	ND		1.00		ug/L			05/25/13 15:58	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Trichloroethene	ND		1.00		ug/L			05/25/13 15:58	1
Vinyl chloride	ND		1.00		ug/L			05/25/13 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/25/13 15:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/25/13 15:58*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*05/25/13 15:58*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/25/13 15:58*	*1*

Lab Sample ID: LCS 490-81892/3
Matrix: Water
Analysis Batch: 81892

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane			50.0	53.82		ug/L		108	74 - 135		
1,1,1-Trichloroethane			50.0	53.65		ug/L		107	78 - 135		

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

Lab Sample ID: LCS 490-81892/3
Matrix: Water
Analysis Batch: 81892

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	50.0	49.35		ug/L		99	69 - 131
1,1,2-Trichloroethane	50.0	49.25		ug/L		99	80 - 124
1,1-Dichloroethane	50.0	53.82		ug/L		108	78 - 125
1,1-Dichloroethene	50.0	55.38		ug/L		111	79 - 124
1,1-Dichloropropene	50.0	54.72		ug/L		109	80 - 122
1,2,3-Trichlorobenzene	50.0	56.74		ug/L		113	62 - 133
1,2,3-Trichloropropane	50.0	47.71		ug/L		95	70 - 131
1,2,4-Trichlorobenzene	50.0	56.25		ug/L		113	63 - 133
1,2,4-Trimethylbenzene	50.0	53.04		ug/L		106	77 - 126
1,2-Dibromo-3-Chloropropane	50.0	47.87		ug/L		96	54 - 125
1,2-Dibromoethane (EDB)	50.0	53.50		ug/L		107	80 - 129
1,2-Dichlorobenzene	50.0	51.11		ug/L		102	80 - 121
1,2-Dichloroethane	50.0	50.16		ug/L		100	77 - 121
1,2-Dichloropropane	50.0	52.47		ug/L		105	75 - 120
1,3,5-Trimethylbenzene	50.0	54.04		ug/L		108	77 - 127
1,3-Dichlorobenzene	50.0	51.27		ug/L		103	80 - 122
1,3-Dichloropropane	50.0	52.44		ug/L		105	80 - 125
1,4-Dichlorobenzene	50.0	50.15		ug/L		100	80 - 120
2,2-Dichloropropane	50.0	50.56		ug/L		101	43 - 161
2-Butanone (MEK)	250	261.4		ug/L		105	62 - 133
2-Chlorotoluene	50.0	51.38		ug/L		103	75 - 126
2-Hexanone	250	267.1		ug/L		107	60 - 142
4-Chlorotoluene	50.0	51.87		ug/L		104	75 - 130
4-Methyl-2-pentanone (MIBK)	250	270.6		ug/L		108	60 - 137
Acetone	250	321.1		ug/L		128	54 - 145
Benzene	50.0	52.46		ug/L		105	80 - 121
Bromobenzene	50.0	48.28		ug/L		97	68 - 130
Bromochloromethane	50.0	57.59		ug/L		115	78 - 129
Bromodichloromethane	50.0	54.01		ug/L		108	75 - 129
Bromoform	50.0	58.08		ug/L		116	46 - 145
Bromomethane	50.0	55.81		ug/L		112	41 - 150
Carbon disulfide	50.0	49.21		ug/L		98	77 - 126
Carbon tetrachloride	50.0	56.89		ug/L		114	64 - 147
Chlorobenzene	50.0	51.78		ug/L		104	80 - 120
Chlorodibromomethane	50.0	55.31		ug/L		111	69 - 133
Chloroethane	50.0	48.99		ug/L		98	72 - 120
Chloroform	50.0	48.31		ug/L		97	73 - 129
Chloromethane	50.0	42.46		ug/L		85	12 - 150
cis-1,2-Dichloroethene	50.0	50.95		ug/L		102	76 - 125
cis-1,3-Dichloropropene	50.0	54.84		ug/L		110	74 - 140
Dibromomethane	50.0	54.89		ug/L		110	71 - 125
Dichlorodifluoromethane	50.0	39.80		ug/L		80	37 - 127
Ethylbenzene	50.0	53.30		ug/L		107	80 - 130
Hexachlorobutadiene	50.0	52.65		ug/L		105	49 - 146
Isopropylbenzene	50.0	55.44		ug/L		111	80 - 141
Methyl tert-butyl ether	50.0	52.49		ug/L		105	72 - 133
Methylene Chloride	50.0	53.43		ug/L		107	79 - 123
Naphthalene	50.0	44.61		ug/L		89	62 - 138

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

Lab Sample ID: LCS 490-81892/3
Matrix: Water
Analysis Batch: 81892

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	50.0	52.62		ug/L		105	68 - 132
N-Propylbenzene	50.0	52.02		ug/L		104	75 - 129
p-Isopropyltoluene	50.0	54.54		ug/L		109	75 - 128
sec-Butylbenzene	50.0	54.17		ug/L		108	76 - 128
Styrene	50.0	57.22		ug/L		114	80 - 127
tert-Butylbenzene	50.0	54.85		ug/L		110	76 - 126
Tetrachloroethene	50.0	56.16		ug/L		112	80 - 126
Toluene	50.0	52.66		ug/L		105	80 - 126
trans-1,2-Dichloroethene	50.0	55.67		ug/L		111	79 - 126
trans-1,3-Dichloropropene	50.0	52.45		ug/L		105	63 - 134
Trichloroethene	50.0	56.52		ug/L		113	80 - 123
Trichlorofluoromethane	50.0	43.81		ug/L		88	65 - 124
Vinyl chloride	50.0	45.76		ug/L		92	68 - 120
Xylenes, Total	150	161.0		ug/L		107	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 490-81892/4
Matrix: Water
Analysis Batch: 81892

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	53.74		ug/L		107	74 - 135	0	16
1,1,1-Trichloroethane	50.0	52.44		ug/L		105	78 - 135	2	17
1,1,2,2-Tetrachloroethane	50.0	50.11		ug/L		100	69 - 131	2	20
1,1,2-Trichloroethane	50.0	50.79		ug/L		102	80 - 124	3	15
1,1-Dichloroethane	50.0	53.40		ug/L		107	78 - 125	1	17
1,1-Dichloroethene	50.0	54.40		ug/L		109	79 - 124	2	17
1,1-Dichloropropene	50.0	54.76		ug/L		110	80 - 122	0	17
1,2,3-Trichlorobenzene	50.0	57.20		ug/L		114	62 - 133	1	25
1,2,3-Trichloropropane	50.0	47.86		ug/L		96	70 - 131	0	19
1,2,4-Trichlorobenzene	50.0	57.12		ug/L		114	63 - 133	2	19
1,2,4-Trimethylbenzene	50.0	52.99		ug/L		106	77 - 126	0	16
1,2-Dibromo-3-Chloropropane	50.0	49.74		ug/L		99	54 - 125	4	24
1,2-Dibromoethane (EDB)	50.0	54.58		ug/L		109	80 - 129	2	15
1,2-Dichlorobenzene	50.0	51.55		ug/L		103	80 - 121	1	15
1,2-Dichloroethane	50.0	50.05		ug/L		100	77 - 121	0	17
1,2-Dichloropropane	50.0	51.72		ug/L		103	75 - 120	1	17
1,3,5-Trimethylbenzene	50.0	54.19		ug/L		108	77 - 127	0	17
1,3-Dichlorobenzene	50.0	51.56		ug/L		103	80 - 122	1	15
1,3-Dichloropropane	50.0	53.34		ug/L		107	80 - 125	2	14
1,4-Dichlorobenzene	50.0	50.85		ug/L		102	80 - 120	1	15
2,2-Dichloropropane	50.0	50.64		ug/L		101	43 - 161	0	18
2-Butanone (MEK)	250	264.2		ug/L		106	62 - 133	1	19

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

Lab Sample ID: LCSD 490-81892/4
Matrix: Water
Analysis Batch: 81892

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorotoluene			50.0	51.38		ug/L		103	75 - 126	0	17
2-Hexanone			250	280.5		ug/L		112	60 - 142	5	15
4-Chlorotoluene			50.0	51.83		ug/L		104	75 - 130	0	18
4-Methyl-2-pentanone (MIBK)			250	272.1		ug/L		109	60 - 137	1	17
Acetone			250	301.2		ug/L		120	54 - 145	6	21
Benzene			50.0	52.20		ug/L		104	80 - 121	1	17
Bromobenzene			50.0	48.56		ug/L		97	68 - 130	1	20
Bromochloromethane			50.0	57.79		ug/L		116	78 - 129	0	17
Bromodichloromethane			50.0	54.48		ug/L		109	75 - 129	1	18
Bromoform			50.0	59.43		ug/L		119	46 - 145	2	16
Bromomethane			50.0	56.01		ug/L		112	41 - 150	0	50
Carbon disulfide			50.0	48.94		ug/L		98	77 - 126	1	21
Carbon tetrachloride			50.0	56.15		ug/L		112	64 - 147	1	19
Chlorobenzene			50.0	51.88		ug/L		104	80 - 120	0	14
Chlorodibromomethane			50.0	55.71		ug/L		111	69 - 133	1	15
Chloroethane			50.0	48.22		ug/L		96	72 - 120	2	20
Chloroform			50.0	47.64		ug/L		95	73 - 129	1	18
Chloromethane			50.0	40.29		ug/L		81	12 - 150	5	31
cis-1,2-Dichloroethene			50.0	50.09		ug/L		100	76 - 125	2	17
cis-1,3-Dichloropropene			50.0	55.40		ug/L		111	74 - 140	1	15
Dibromomethane			50.0	54.07		ug/L		108	71 - 125	2	16
Dichlorodifluoromethane			50.0	38.60		ug/L		77	37 - 127	3	18
Ethylbenzene			50.0	54.59		ug/L		109	80 - 130	2	15
Hexachlorobutadiene			50.0	53.63		ug/L		107	49 - 146	2	23
Isopropylbenzene			50.0	57.10		ug/L		114	80 - 141	3	16
Methyl tert-butyl ether			50.0	53.24		ug/L		106	72 - 133	1	16
Methylene Chloride			50.0	52.06		ug/L		104	79 - 123	3	17
Naphthalene			50.0	46.56		ug/L		93	62 - 138	4	26
n-Butylbenzene			50.0	52.94		ug/L		106	68 - 132	1	18
N-Propylbenzene			50.0	52.02		ug/L		104	75 - 129	0	17
p-Isopropyltoluene			50.0	55.16		ug/L		110	75 - 128	1	16
sec-Butylbenzene			50.0	54.83		ug/L		110	76 - 128	1	16
Styrene			50.0	58.23		ug/L		116	80 - 127	2	24
tert-Butylbenzene			50.0	56.04		ug/L		112	76 - 126	2	16
Tetrachloroethene			50.0	56.57		ug/L		113	80 - 126	1	16
Toluene			50.0	53.06		ug/L		106	80 - 126	1	15
trans-1,2-Dichloroethene			50.0	54.89		ug/L		110	79 - 126	1	16
trans-1,3-Dichloropropene			50.0	53.81		ug/L		108	63 - 134	3	14
Trichloroethene			50.0	56.03		ug/L		112	80 - 123	1	17
Trichlorofluoromethane			50.0	43.18		ug/L		86	65 - 124	1	18
Vinyl chloride			50.0	44.83		ug/L		90	68 - 120	2	17
Xylenes, Total			150	163.7		ug/L		109	80 - 132	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-81744/6
Matrix: Water
Analysis Batch: 81744

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/24/13 13:58	1

Lab Sample ID: LCS 490-81744/7
Matrix: Water
Analysis Batch: 81744

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			50.0	49.91		mg/L		100	90 - 110		

Lab Sample ID: LCSD 490-81744/8
Matrix: Water
Analysis Batch: 81744

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			50.0	50.14		mg/L		100	90 - 110	0	20

Lab Sample ID: 490-27374-B-5 MS
Matrix: Water
Analysis Batch: 81744

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	4.94		50.0	52.89		mg/L		96	80 - 120		

Lab Sample ID: 490-27374-B-5 DU
Matrix: Water
Analysis Batch: 81744

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	4.94			4.909		mg/L				0.7	20

GC/MS VOA

Analysis Batch: 81590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-10	TW-04	Total/NA	Water	8260B	
490-27025-11	TW-09	Total/NA	Water	8260B	
490-27025-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
490-27025-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 490-81590/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-81590/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-81590/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 81892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-6	BR-15	Total/NA	Water	8260B	
LCS 490-81892/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-81892/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-81892/7	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 81744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27025-10	TW-04	Total/NA	Water	300.0	
490-27374-B-5 DU	Duplicate	Total/NA	Water	300.0	
490-27374-B-5 MS	Matrix Spike	Total/NA	Water	300.0	
LCS 490-81744/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-81744/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-81744/6	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Client Sample ID: BR-15

Lab Sample ID: 490-27025-6

Date Collected: 05/14/13 13:19

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81892	05/25/13 16:29	AF	TAL NSH

Client Sample ID: TW-04

Lab Sample ID: 490-27025-10

Date Collected: 05/14/13 16:23

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 16:09	AF	TAL NSH
Total/NA	Analysis	300.0		5	81744	05/24/13 21:28	HT	TAL NSH

Client Sample ID: TW-09

Lab Sample ID: 490-27025-11

Date Collected: 05/14/13 10:00

Matrix: Water

Date Received: 05/18/13 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81590	05/24/13 16:40	AF	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-27025-2

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-13 *
California	NELAP	9	1168CA	10-31-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-10-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	05-31-14 *
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-27025 Chain of Custody

Cooler Received/Opened On 5/18/2013 @ 0850

1. Tracking # 4317 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 18290455

2. Temperature of rep. sample or temp blank when opened: 2.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) DA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) DA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) DA

I certify that I attached a label with the unique LIMS number to each container (intial) DA

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#_____

BIS = Broken in shipment

Chain of Custody Record

Loc: 490
27025

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2013

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Car	COC No: 490-11072-112.1
Client Contact: Mr. Joe Deatherage	Phone: 865-287-4625	E-Mail: shali.brown@testamericainc.com	Inc.	Page: Page 1 of 2
Company: AMEC Environment & Infrastructure, Inc.				Job #:
Address: 9725 Cogdill Road	Due Date Requested:			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE 1,1-DCE cis/trans 1,2	300_ORGFM_28D - Sulfate	Total Number of containers	Special Instructions/Note:
				Preservation Code:				A	N		
1	BR-01	5/15/13	1800	G	Water			X			
2	BR-02	5/16/13	1125	G	Water			X			
3	BR-03	5/16/13	1442	G	Water			X			
4	BR-04	5/15/13	1400	G	Water			X			
5	BR-10	5/15/13	1615	G	Water			X			
6	BR-15	5/14/13	1319	G	Water			X			
7	OB-04	5/15/13	0955	G	Water			X			
8	OB-06	5/15/13	1146	G	Water			X	X		
9	OB-08	5/14/13	1800	G	Water			X			
10	TW-04	5/14/13	1623	G	Water			X	X		
11	TW-09	5/14/13	1000	G	Water			X	1		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Courtney Price	1600 5/16/13		[illegible]	5/17/13 0900	TA BUFFALO
2	[illegible]	1600 5-17-13	TA Buffalo	[illegible]	5-18-13 0850	TA-K
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.8 2.9

Chain of Custody Record

Loc: 490
27025

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/30/2013

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Carr	COC No: 490-11072-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-207-4625	E-Mail: shali.brown@testamericainc.com		Page: Page 2 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 9725 Cogdill Road	Due Date Requested:			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TN, 37932				Other:
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE 1,1-DCE cis/trans 1,2	300_ORGFM_28D - Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
12 TW-17	5/16/13	1255	G	Water			X	X		
13 TW-20	5/16/13	1230	G	Water			X	X		
14 W-5	5/16/13	0930	G	Water			X	X		
15 QAFB01	5/15/13	1822	G	Water			X			
16 ~~Duplicate~~ DUP-01	5/16/13	0930	G	Water			X			
17 BR-04 (MS)	5/15/13	1400	G	Water			X			
18 BR-04 (MSD)	5/15/13	1400	G	Water			X			
19 QARB01	5/16/13	1447	G	Water			X			
20 ~~Extra Set~~ QATB01	~~5/~~	—	G	Water			X			
~~Extra Set~~				Water						
~~TW-04~~				Water						

Cap

Page 26 of 28

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 5/16/13 1600	Company	Received by:	Date/Time: 5/17/13 0900	Company TA BUFFALO
Relinquished by:	Date/Time: 5-17-13 1650	Company TAB	Received by:	Date/Time: 5-18-13 0850	Company TAN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: # 1 3.8 2.9

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-0954

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 490-1783-71.1
Client Contact: Mr. Joe Deatherage	Phone:	E-Mail: shali.brown@testamericainc.com		Page:
Company: AMEC Environment & Infrastructure, Inc.				Job #:
Address: 9725 Cogdill Road	Due Date Requested:			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012600056			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 49001213			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - 8260Custom TCE PCE, 1,1-DCE	8260B-8260Custom cis/trans 1,2-DCE, vinyl chloride	300_ORGFM_28D - Sulfate										Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	A									
BR-15	5/14/13	1319	G	Water			X	X												
TW-04	5/14/13	1623	G	Water			X	X	X											
TW-09	5/14/13	1000	G	Water			X	X	X											
				Water																
				Water																
				Water																
				Water																
				Water																
				Water																
				Water																
				Water																

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1						
2						
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Page 27 of 28

5/30/2013

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 490-27025-2

Login Number: 27025

List Source: TestAmerica Nashville

List Number: 1

Creator: Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 30, 2013

Joe Deatherage
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, TN 37923
USA

RE: **FRM TAYLOR INSTRUMENTS**

Microseeps Workorder: 9037

Dear Joe Deatherage:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, May 17, 2013. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 05/30/2013
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 22

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID	Sample ID	Matrix	Date Collected	Date Received
90370001	OB-04	Water	5/15/2013 09:55	5/17/2013 11:00
90370002	OB-08	Water	5/14/2013 18:00	5/17/2013 11:00
90370003	TW-04	Water	5/14/2013 16:23	5/17/2013 11:00
90370004	OB-06	Water	5/15/2013 11:46	5/17/2013 11:00
90370005	W-5	Water	5/16/2013 09:30	5/17/2013 11:00
90370006	TW-17	Water	5/16/2013 12:55	5/17/2013 11:00
90370007	TW-20	Water	5/16/2013 12:30	5/17/2013 11:00

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

PROJECT SUMMARY

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Batch Comments

Batch: DISG/3014 - AM20GAX Water QC

The matrix spike and/or matrix spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample 90810001. Analyte Methane. Batch acceptance based on laboratory control sample recovery.

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370001** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **OB-04** Date Collected: 5/15/2013 09:55

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.34J**	mg/l	1.0	0.13	10			5/28/2013 13:10	KB	
Acetic Acid	**28**	mg/l	0.70	0.050	10			5/28/2013 13:10	KB	
Propionic Acid	**0.76**	mg/l	0.50	0.080	10			5/28/2013 13:10	KB	
Formic Acid	**0.29**	mg/l	0.10	0.0040	1			5/24/2013 19:32	KB	
Butyric Acid	**0.84**	mg/l	0.050	0.011	1			5/24/2013 19:32	KB	
Pyruvic Acid	**0.087J**	mg/l	0.15	0.014	1			5/24/2013 19:32	KB	
i-Pentanoic Acid	**0.10J**	mg/l	0.15	0.0090	1			5/24/2013 19:32	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			5/24/2013 19:32	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			5/24/2013 19:32	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			5/24/2013 19:32	KB	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370002** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **OB-08** Date Collected: 5/14/2013 18:00

Parameters	Results	Units	PQL	MDL	DF	Prepared By	Analyzed	By	Qual
EDonors - MICR									
Analysis Desc: AM23G		Analytical Method: AM23G							
Lactic Acid	**0.16**	mg/l	0.10	0.013	1		5/24/2013 20:14	KB	
Acetic Acid	**0.87**	mg/l	0.070	0.0050	1		5/24/2013 20:14	KB	
Propionic Acid	**0.12**	mg/l	0.050	0.0080	1		5/24/2013 20:14	KB	
Formic Acid	**0.17**	mg/l	0.10	0.0040	1		5/24/2013 20:14	KB	
Butyric Acid	**0.056**	mg/l	0.050	0.011	1		5/24/2013 20:14	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1		5/24/2013 20:14	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1		5/24/2013 20:14	KB	
Pentanoic Acid	**0.053J**	mg/l	0.070	0.011	1		5/24/2013 20:14	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1		5/24/2013 20:14	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1		5/24/2013 20:14	KB	

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370003** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **TW-04** Date Collected: 5/14/2013 16:23

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.10**	mg/l	0.10	0.013	1			5/24/2013 20:56	KB	
Acetic Acid	**0.046J**	mg/l	0.070	0.0050	1			5/24/2013 20:56	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0080	1			5/24/2013 20:56	KB	
Formic Acid	**0.12**	mg/l	0.10	0.0040	1			5/24/2013 20:56	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.011	1			5/24/2013 20:56	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			5/24/2013 20:56	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			5/24/2013 20:56	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			5/24/2013 20:56	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			5/24/2013 20:56	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			5/24/2013 20:56	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**2000**	ug/l	0.10	0.018	1			5/25/2013 10:04	BW	
Ethene	**0.018J**	ug/l	0.025	0.0050	1			5/25/2013 10:04	BW	

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370004** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **OB-06** Date Collected: 5/15/2013 11:46

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.33J**	mg/l	1.0	0.13	10			5/28/2013 13:53	KB	
Acetic Acid	**60**	mg/l	0.70	0.050	10			5/28/2013 13:53	KB	
Propionic Acid	**1.4**	mg/l	0.50	0.080	10			5/28/2013 13:53	KB	
Formic Acid	**1.3**	mg/l	0.10	0.0040	1			5/24/2013 21:38	KB	
Butyric Acid	**4.8**	mg/l	0.050	0.011	1			5/24/2013 21:38	KB	
Pyruvic Acid	**0.20**	mg/l	0.15	0.014	1			5/24/2013 21:38	KB	
i-Pentanoic Acid	**0.15**	mg/l	0.15	0.0090	1			5/24/2013 21:38	KB	
Pentanoic Acid	**0.11**	mg/l	0.070	0.011	1			5/24/2013 21:38	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			5/24/2013 21:38	KB	
Hexanoic Acid	**1.5**	mg/l	0.50	0.22	1			5/24/2013 21:38	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**17000**	ug/l	0.10	0.018	1			5/25/2013 10:14	BW	
Ethene	**24**	ug/l	0.025	0.0050	1			5/25/2013 10:14	BW	

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370005** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **W-5** Date Collected: 5/16/2013 09:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.085J**	mg/l	0.10	0.013	1			5/24/2013 22:20	KB	
Acetic Acid	**0.045J**	mg/l	0.070	0.0050	1			5/24/2013 22:20	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0080	1			5/24/2013 22:20	KB	
Formic Acid	**0.13**	mg/l	0.10	0.0040	1			5/24/2013 22:20	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.011	1			5/24/2013 22:20	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			5/24/2013 22:20	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			5/24/2013 22:20	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			5/24/2013 22:20	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			5/24/2013 22:20	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			5/24/2013 22:20	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**32**	ug/l	0.10	0.018	1			5/25/2013 10:25	BW	
Ethene	**14**	ug/l	0.025	0.0050	1			5/25/2013 10:25	BW	

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370006** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **TW-17** Date Collected: 5/16/2013 12:55

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**2.5J**	mg/l	10	1.3	100			5/28/2013 15:59	KB	
Acetic Acid	**530**	mg/l	7.0	0.50	100			5/28/2013 15:59	KB	
Propionic Acid	**13**	mg/l	5.0	0.80	100			5/28/2013 15:59	KB	
Formic Acid	**18**	mg/l	10	0.40	100			5/28/2013 15:59	KB	
Butyric Acid	**66**	mg/l	5.0	1.1	100			5/28/2013 15:59	KB	
Pyruvic Acid	**5.7J**	mg/l	15	1.4	100			5/28/2013 15:59	KB	
i-Pentanoic Acid	**4.3J**	mg/l	15	0.90	100			5/28/2013 15:59	KB	
Pentanoic Acid	**7.0 U**	mg/l	7.0	1.1	100			5/28/2013 15:59	KB	
i-Hexanoic Acid	**0.17**	mg/l	0.10	0.029	1			5/24/2013 23:03	KB	
Hexanoic Acid	**37J**	mg/l	50	22	100			5/28/2013 15:59	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**11000**	ug/l	0.10	0.018	1			5/25/2013 10:35	BW	
Ethene	**0.30**	ug/l	0.025	0.0050	1			5/25/2013 10:35	BW	

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ANALYTICAL RESULTS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID: **90370007** Date Received: 5/17/2013 11:00 Matrix: Water

Sample ID: **TW-20** Date Collected: 5/16/2013 12:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**0.30**	ug/l	0.10	0.018	1			5/25/2013 10:45	BW	
Ethene	**0.16**	ug/l	0.025	0.0050	1			5/25/2013 10:45	BW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 9037 FRM TAYLOR INSTRUMENTS

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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QUALITY CONTROL DATA

Workorder: 9037 FRM TAYLOR INSTRUMENTS

QC Batch: EDON/1751 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 90370001, 90370002, 90370003, 90370004, 90370005, 90370006

METHOD BLANK: 20404

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.049J	0.10	
Acetic Acid	mg/l	0.012J	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Formic Acid	mg/l	0.084J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
i-Hexanoic Acid	mg/l	0.10 U	0.10	
Hexanoic Acid	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE: 20405

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	2.1	104	70-130	
Acetic Acid	mg/l	2	2.0	99	70-130	
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	2.1	104	70-130	
Butyric Acid	mg/l	2	1.9	97	70-130	
Pyruvic Acid	mg/l	2	1.9	96	70-130	
i-Pentanoic Acid	mg/l	2	1.8	93	70-130	
Pentanoic Acid	mg/l	2	1.9	95	70-130	
i-Hexanoic Acid	mg/l	2	1.8	90	70-130	
Hexanoic Acid	mg/l	2	1.8	91	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20406 20407 Original: 90320001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0.14	2	2.2	2.2	103	104	70-130	0.97	30	

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QUALITY CONTROL DATA

Workorder: 9037 FRM TAYLOR INSTRUMENTS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20406 20407 Original: 90320001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	0.084	2	2.1	2.1	100	103	70-130	3	30	
Propionic Acid	mg/l	0.02	2	2.0	2.0	99	102	70-130	3	30	
Formic Acid	mg/l	0.14	2	2.1	2.1	98	100	70-130	2	30	
Butyric Acid	mg/l	0	2	1.9	2.0	95	99	70-130	4.1	30	
Pyruvic Acid	mg/l	0	2	1.9	2.0	95	98	70-130	3.1	30	
i-Pentanoic Acid	mg/l	0	2	1.8	1.9	89	94	70-130	5.5	30	
Pentanoic Acid	mg/l	0	2	1.9	2.0	96	100	70-130	4.1	30	
i-Hexanoic Acid	mg/l	0	2	1.9	1.9	93	96	70-130	3.2	30	
Hexanoic Acid	mg/l	0	2	1.7	1.8	87	91	70-130	4.5	30	

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QUALITY CONTROL DATA

Workorder: 9037 FRM TAYLOR INSTRUMENTS

QC Batch: DISG/3014 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 90370003, 90370004, 90370005, 90370006, 90370007

METHOD BLANK: 20408

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethene	ug/l	0.025 U	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 20409 20410

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	800	820	97	100	80-120	3	20	
Ethene	ug/l	39	41	42	105	109	80-120	3.7	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20421 20422 Original: 90810001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	8100	820	10000	11000	251	319	70-130	24	20	
Ethene	ug/l	27	39	69	69	109	108	70-130	0.92	20	

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QUALITY CONTROL DATA

Workorder: 9037 FRM TAYLOR INSTRUMENTS

QC Batch: EDON/1753 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 90370001, 90370004, 90370006

METHOD BLANK: 20493

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.049J	0.10	
Acetic Acid	mg/l	0.026J	0.070	
Propionic Acid	mg/l	0.023J	0.050	
Formic Acid	mg/l	0.070J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
Hexanoic Acid	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE: 20494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	2.0	101	70-130	
Acetic Acid	mg/l	2	2.0	101	70-130	
Propionic Acid	mg/l	2	2.0	100	70-130	
Formic Acid	mg/l	2	2.1	107	70-130	
Butyric Acid	mg/l	2	1.9	97	70-130	
Pyruvic Acid	mg/l	2	1.9	97	70-130	
i-Pentanoic Acid	mg/l	2	1.8	93	70-130	
Pentanoic Acid	mg/l	2	2.0	102	70-130	
Hexanoic Acid	mg/l	2	1.8	93	70-130	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 9037 FRM TAYLOR INSTRUMENTS

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
90370001	OB-04			AM23G	EDON/1751
90370002	OB-08			AM23G	EDON/1751
90370003	TW-04			AM23G	EDON/1751
90370004	OB-06			AM23G	EDON/1751
90370005	W-5			AM23G	EDON/1751
90370006	TW-17			AM23G	EDON/1751
90370003	TW-04			AM20GAX	DISG/3014
90370004	OB-06			AM20GAX	DISG/3014
90370005	W-5			AM20GAX	DISG/3014
90370006	TW-17			AM20GAX	DISG/3014
90370007	TW-20			AM20GAX	DISG/3014
90370001	OB-04			AM23G	EDON/1753
90370004	OB-06			AM23G	EDON/1753
90370006	TW-17			AM23G	EDON/1753

Microseeps Lab. Proj. # 9037

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. # _____

Phone: (412) 826-5245 | Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 | Fax No. : (412) 826-3433

Company : AMEC
Co. Address : 9725 Cogdill Road
Phone # : 865-218-1049 Fax # :
Proj. Manager : Joe Deatherage
Proj. Name/Number : Former Taylor Instruments 3031-05-2006.27
Sampler's signature : Cathy Price

Cooler Temp.

Results to : Joe.deatherage@amec.com

Invoice to : Joe.deatherage@amec.com

	Sample ID	Sample Description	Sample Type: Water	Vapor	Solid	Date	Time	# bottles	Parameters Requested: VFAs	methane/ethene	Remarks :
1	OB-04	OB-04	X			5/15/13	0955	2	X		
2	OB-08	OB-08	X			5/14/13	1800	2	X		
3	TW-04	TW-04	X			5/14/13	1623	4	X	X	
4	OB-06	OB-06	X			5/15/13	1146	4	X	X	
5	W-5	W-5	X			5/16/13	0930	4	X	X	
6	TW-17	TW-17	X			5/16/13	1255	4	X	X	
7	TW-20	TW-20	X			5/16/13	1230	~~4~~ 2		X	

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Cathy Price	AMEC	5/16/13	1600	LaCon	MS	5.17.13	1100
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

NOVEMBER 2013
LABORATORY REPORTS AND
CHAIN-OF-CUSTODY FORMS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-40526-1
Client Project/Site: Former Taylor Instruments

For:
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

Attn: Mr. Joe Deatherage

Authorized for release by:
11/26/2013 12:56:07 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-40526-1	OB-06	Water	11/13/13 15:15	11/15/13 08:30
490-40526-2	OB-08	Water	11/14/13 09:12	11/15/13 08:30
490-40526-3	BR-15	Water	11/12/13 12:10	11/15/13 08:30
490-40526-4	TW-09	Water	11/12/13 13:20	11/15/13 08:30
490-40526-5	TW-20	Water	11/14/13 10:40	11/15/13 08:30
490-40526-6	TW-17	Water	11/14/13 14:40	11/15/13 08:30
490-40526-7	W-5	Water	11/14/13 12:15	11/15/13 08:30
490-40526-8	DUP-01	Water	11/12/13 00:01	11/15/13 08:30
490-40526-9	BR-10	Water	11/12/13 14:52	11/15/13 08:30
490-40526-10	BR-04	Water	11/12/13 16:10	11/15/13 08:30
490-40526-11	BR-03	Water	11/13/13 09:00	11/15/13 08:30
490-40526-12	BR-02	Water	11/13/13 11:23	11/15/13 08:30
490-40526-13	BR-01	Water	11/14/13 14:13	11/15/13 08:30
490-40526-14	QARB01	Water	11/13/13 16:47	11/15/13 08:30
490-40526-15	QAFB01	Water	11/13/13 16:20	11/15/13 08:30
490-40526-16	QATB01	Water	11/12/13 00:01	11/15/13 08:30

Job ID: 490-40526-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-40526-1

Comments
No additional comments.

Receipt
The samples were received on 11/15/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 124181 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260C: The following sample(s) was diluted due to the nature of the sample matrix: BR-03 (490-40526-11), TW-17 (490-40526-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

HPLC
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F	MS/MSD Recovery and/or RPD exceeds the control limits

Glossary

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

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: OB-06
Date Collected: 11/13/13 15:15
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 10:23	1
cis-1,2-Dichloroethene	**7.83**		1.00		ug/L			11/25/13 10:23	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 10:23	1
trans-1,2-Dichloroethene	**1.03**		1.00		ug/L			11/25/13 10:23	1
Trichloroethene	**43.7**		1.00		ug/L			11/25/13 10:23	1
Vinyl chloride	**8.02**		1.00		ug/L			11/25/13 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 10:23*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*11/25/13 10:23*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 10:23*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 10:23*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**196**		5.00		mg/L			11/25/13 23:17	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: OB-08
Date Collected: 11/14/13 09:12
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 10:51	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 10:51	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 10:51	1
trans-1,2-Dichloroethene	**2.44**		1.00		ug/L			11/25/13 10:51	1
Trichloroethene	ND		1.00		ug/L			11/25/13 10:51	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 10:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*11/25/13 10:51*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 10:51*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 10:51*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-15
Date Collected: 11/12/13 12:10
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 11:18	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 11:18	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 11:18	1
trans-1,2-Dichloroethene	**1.02**		1.00		ug/L			11/25/13 11:18	1
Trichloroethene	ND		1.00		ug/L			11/25/13 11:18	1
Vinyl chloride	**8.90**		1.00		ug/L			11/25/13 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/25/13 11:18*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*11/25/13 11:18*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 11:18*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 11:18*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: TW-09
Date Collected: 11/12/13 13:20
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 11:45	1
cis-1,2-Dichloroethene	**3.38**		1.00		ug/L			11/25/13 11:45	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 11:45	1
trans-1,2-Dichloroethene	**6.92**		1.00		ug/L			11/25/13 11:45	1
Trichloroethene	ND		1.00		ug/L			11/25/13 11:45	1
Vinyl chloride	**9.03**		1.00		ug/L			11/25/13 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/25/13 11:45*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/25/13 11:45*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 11:45*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 11:45*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: TW-20
Date Collected: 11/14/13 10:40
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 12:13	1
cis-1,2-Dichloroethene	**1.73**		1.00		ug/L			11/25/13 12:13	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 12:13	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 12:13	1
Trichloroethene	**56.6**		1.00		ug/L			11/25/13 12:13	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/25/13 12:13*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 12:13*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/25/13 12:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 12:13*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**50.2**		1.00		mg/L			11/25/13 05:33	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: TW-17
Date Collected: 11/14/13 14:40
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/23/13 08:48	1
cis-1,2-Dichloroethene	**240**		5.00		ug/L			11/25/13 08:07	5
Tetrachloroethene	ND		1.00		ug/L			11/23/13 08:48	1
trans-1,2-Dichloroethene	ND		5.00		ug/L			11/25/13 08:07	5
Trichloroethene	ND		1.00		ug/L			11/23/13 08:48	1
Vinyl chloride	**130**		1.00		ug/L			11/23/13 08:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*11/23/13 08:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/25/13 08:07*	*5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*11/23/13 08:48*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 08:07*	*5*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/23/13 08:48*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 08:07*	*5*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/23/13 08:48*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 08:07*	*5*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.16**		1.00		mg/L			11/25/13 05:54	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: W-5
Date Collected: 11/14/13 12:15
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 12:40	1
cis-1,2-Dichloroethene	**69.5**		1.00		ug/L			11/25/13 12:40	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 12:40	1
trans-1,2-Dichloroethene	**10.2**		1.00		ug/L			11/25/13 12:40	1
Trichloroethene	**182**		1.00		ug/L			11/25/13 12:40	1
Vinyl chloride	**36.5**		1.00		ug/L			11/25/13 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 12:40*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 12:40*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 12:40*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 12:40*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**170**		5.00		mg/L			11/25/13 23:37	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: DUP-01
Date Collected: 11/12/13 00:01
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 13:07	1
cis-1,2-Dichloroethene	**69.8**		1.00		ug/L			11/25/13 13:07	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 13:07	1
trans-1,2-Dichloroethene	**9.97**		1.00		ug/L			11/25/13 13:07	1
Trichloroethene	**185**		1.00		ug/L			11/25/13 13:07	1
Vinyl chloride	**33.8**		1.00		ug/L			11/25/13 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 13:07*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 13:07*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 13:07*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 13:07*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-10
Date Collected: 11/12/13 14:52
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.11		1.00		ug/L			11/23/13 10:11	1
cis-1,2-Dichloroethene	173		5.00		ug/L			11/25/13 08:35	5
Tetrachloroethene	1.76		1.00		ug/L			11/23/13 10:11	1
trans-1,2-Dichloroethene	29.0		5.00		ug/L			11/25/13 08:35	5
Trichloroethene	444		5.00		ug/L			11/25/13 08:35	5
Vinyl chloride	2.17		1.00		ug/L			11/23/13 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 130*		*11/23/13 10:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/25/13 08:35*	*5*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/23/13 10:11*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*11/25/13 08:35*	*5*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*11/23/13 10:11*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/25/13 08:35*	*5*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/23/13 10:11*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 08:35*	*5*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-04
Date Collected: 11/12/13 16:10
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**9.96**		1.00		ug/L			11/23/13 10:39	1
cis-1,2-Dichloroethene	**1320**		20.0		ug/L			11/25/13 09:02	20
Tetrachloroethene	ND		1.00		ug/L			11/23/13 10:39	1
trans-1,2-Dichloroethene	**66.9**		20.0		ug/L			11/25/13 09:02	20
Trichloroethene	**638**		20.0		ug/L			11/25/13 09:02	20
Vinyl chloride	**77.0**		1.00		ug/L			11/23/13 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*11/23/13 10:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 09:02*	*20*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/23/13 10:39*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/25/13 09:02*	*20*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/23/13 10:39*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/25/13 09:02*	*20*
Toluene-d8 (Surr)	*108*		*70 - 130*		*11/23/13 10:39*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 09:02*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-03
Date Collected: 11/13/13 09:00
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**2.04**		1.00		ug/L			11/23/13 11:07	1
cis-1,2-Dichloroethene	**18.2**		5.00		ug/L			11/25/13 09:29	5
Tetrachloroethene	ND		1.00		ug/L			11/23/13 11:07	1
trans-1,2-Dichloroethene	ND		5.00		ug/L			11/25/13 09:29	5
Trichloroethene	**653**		5.00		ug/L			11/25/13 09:29	5
Vinyl chloride	ND		1.00		ug/L			11/23/13 11:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*11/23/13 11:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 09:29*	*5*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*11/23/13 11:07*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/25/13 09:29*	*5*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*11/23/13 11:07*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 09:29*	*5*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/23/13 11:07*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/25/13 09:29*	*5*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-02
Date Collected: 11/13/13 11:23
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 13:34	1
cis-1,2-Dichloroethene	**24.1**		1.00		ug/L			11/25/13 13:34	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 13:34	1
trans-1,2-Dichloroethene	**3.45**		1.00		ug/L			11/25/13 13:34	1
Trichloroethene	**27.0**		1.00		ug/L			11/25/13 13:34	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 13:34*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*11/25/13 13:34*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 13:34*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 13:34*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-01
Date Collected: 11/14/13 14:13
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**6.87**		1.00		ug/L			11/23/13 12:03	1
cis-1,2-Dichloroethene	**1470**		20.0		ug/L			11/25/13 09:56	20
Tetrachloroethene	ND		1.00		ug/L			11/23/13 12:03	1
trans-1,2-Dichloroethene	**34.4**		20.0		ug/L			11/25/13 09:56	20
Trichloroethene	**111**		1.00		ug/L			11/23/13 12:03	1
Vinyl chloride	**406**		20.0		ug/L			11/25/13 09:56	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*11/23/13 12:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 09:56*	*20*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*11/23/13 12:03*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 09:56*	*20*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*11/23/13 12:03*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/25/13 09:56*	*20*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/23/13 12:03*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 09:56*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: QARB01
Date Collected: 11/13/13 16:47
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 14:29	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:29	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 14:29	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:29	1
Trichloroethene	ND		1.00		ug/L			11/25/13 14:29	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/25/13 14:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 14:29*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 14:29*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 14:29*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: QAFB01
Date Collected: 11/13/13 16:20
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 14:56	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:56	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 14:56	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:56	1
Trichloroethene	ND		1.00		ug/L			11/25/13 14:56	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/25/13 14:56*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/25/13 14:56*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/25/13 14:56*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/25/13 14:56*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: QATB01
Date Collected: 11/12/13 00:01
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40526-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 14:01	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:01	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 14:01	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 14:01	1
Trichloroethene	ND		1.00		ug/L			11/25/13 14:01	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/25/13 14:01*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/25/13 14:01*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/25/13 14:01*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 14:01*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

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

Lab Sample ID: MB 490-124181/7
Matrix: Water
Analysis Batch: 124181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/23/13 04:36	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/23/13 04:36	1
Tetrachloroethene	ND		1.00		ug/L			11/23/13 04:36	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/23/13 04:36	1
Trichloroethene	ND		1.00		ug/L			11/23/13 04:36	1
Vinyl chloride	ND		1.00		ug/L			11/23/13 04:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*11/23/13 04:36*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*11/23/13 04:36*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/23/13 04:36*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/23/13 04:36*	*1*

Lab Sample ID: LCS 490-124181/3
Matrix: Water
Analysis Batch: 124181

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			50.0	53.07		ug/L		106	79 - 124		
cis-1,2-Dichloroethene			50.0	58.63		ug/L		117	76 - 125		
Tetrachloroethene			50.0	53.57		ug/L		107	80 - 126		
trans-1,2-Dichloroethene			50.0	55.40		ug/L		111	79 - 126		
Trichloroethene			50.0	50.59		ug/L		101	80 - 123		
Vinyl chloride			50.0	49.30		ug/L		99	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 490-124181/4
Matrix: Water
Analysis Batch: 124181

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			50.0	50.40		ug/L		101	79 - 124	5	17
cis-1,2-Dichloroethene			50.0	53.93		ug/L		108	76 - 125	8	17
Tetrachloroethene			50.0	56.72		ug/L		113	80 - 126	6	16
trans-1,2-Dichloroethene			50.0	53.33		ug/L		107	79 - 126	4	16
Trichloroethene			50.0	50.60		ug/L		101	80 - 123	0	17
Vinyl chloride			50.0	48.37		ug/L		97	68 - 120	2	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

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

Lab Sample ID: LCSD 490-124181/4
Matrix: Water
Analysis Batch: 124181

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: 490-40526-10 MS
Matrix: Water
Analysis Batch: 124181

Client Sample ID: BR-04 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	9.96		50.0	59.76		ug/L		100	70 - 142
cis-1,2-Dichloroethene	990		50.0	1021	E 4	ug/L		60	68 - 138
Tetrachloroethene	ND		50.0	43.81		ug/L		88	72 - 145
trans-1,2-Dichloroethene	109		50.0	138.8	F	ug/L		59	66 - 143
Trichloroethene	537		50.0	539.1	E 4	ug/L		5	73 - 144
Vinyl chloride	77.0		50.0	126.6		ug/L		99	56 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 490-40526-10 MSD
Matrix: Water
Analysis Batch: 124181

Client Sample ID: BR-04 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	9.96		50.0	61.64		ug/L		103	70 - 142	3	17
cis-1,2-Dichloroethene	990		50.0	1000	E 4	ug/L		19	68 - 138	2	17
Tetrachloroethene	ND		50.0	43.33		ug/L		87	72 - 145	1	16
trans-1,2-Dichloroethene	109		50.0	136.3	F	ug/L		54	66 - 143	2	16
Trichloroethene	537		50.0	526.0	E 4	ug/L		-21	73 - 144	2	17
Vinyl chloride	77.0		50.0	128.7		ug/L		103	56 - 129	2	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 490-124399/6
Matrix: Water
Analysis Batch: 124399

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/25/13 06:18	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 06:18	1
Tetrachloroethene	ND		1.00		ug/L			11/25/13 06:18	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/25/13 06:18	1

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

Lab Sample ID: MB 490-124399/6
Matrix: Water
Analysis Batch: 124399

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.00		ug/L			11/25/13 06:18	1
Vinyl chloride	ND		1.00		ug/L			11/25/13 06:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/25/13 06:18*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/25/13 06:18*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/25/13 06:18*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/25/13 06:18*	*1*

Lab Sample ID: LCS 490-124399/3
Matrix: Water
Analysis Batch: 124399

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	48.78		ug/L		98	79 - 124
cis-1,2-Dichloroethene	50.0	43.08		ug/L		86	76 - 125
Tetrachloroethene	50.0	50.81		ug/L		102	80 - 126
trans-1,2-Dichloroethene	50.0	45.97		ug/L		92	79 - 126
Trichloroethene	50.0	53.07		ug/L		106	80 - 123
Vinyl chloride	50.0	53.46		ug/L		107	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 490-124399/4
Matrix: Water
Analysis Batch: 124399

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	50.0	49.25		ug/L		98	79 - 124	1	17
cis-1,2-Dichloroethene	50.0	43.55		ug/L		87	76 - 125	1	17
Tetrachloroethene	50.0	50.97		ug/L		102	80 - 126	0	16
trans-1,2-Dichloroethene	50.0	47.23		ug/L		94	79 - 126	3	16
Trichloroethene	50.0	53.97		ug/L		108	80 - 123	2	17
Vinyl chloride	50.0	54.16		ug/L		108	68 - 120	1	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

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

Lab Sample ID: 490-40617-B-10 MS
Matrix: Water
Analysis Batch: 124399

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		50.0	58.03		ug/L		116	70 - 142
cis-1,2-Dichloroethene	ND		50.0	45.91		ug/L		92	68 - 138
Tetrachloroethene	ND		50.0	55.12		ug/L		110	72 - 145
trans-1,2-Dichloroethene	ND		50.0	49.64		ug/L		99	66 - 143
Trichloroethene	ND		50.0	55.55		ug/L		111	73 - 144
Vinyl chloride	ND		50.0	59.24		ug/L		118	56 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Lab Sample ID: 490-40617-C-10 MSD
Matrix: Water
Analysis Batch: 124399

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		50.0	61.61		ug/L		123	70 - 142	6	17
cis-1,2-Dichloroethene	ND		50.0	48.05		ug/L		96	68 - 138	5	17
Tetrachloroethene	ND		50.0	57.69		ug/L		115	72 - 145	5	16
trans-1,2-Dichloroethene	ND		50.0	51.72		ug/L		103	66 - 143	4	16
Trichloroethene	ND		50.0	58.01		ug/L		116	73 - 144	4	17
Vinyl chloride	ND		50.0	63.27		ug/L		127	56 - 129	7	17

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-124156/3
Matrix: Water
Analysis Batch: 124156

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			11/24/13 22:32	1

Lab Sample ID: LCS 490-124156/4
Matrix: Water
Analysis Batch: 124156

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	51.85		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 490-40257-J-1 MS
Matrix: Water
Analysis Batch: 124156

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	8.96		50.0	64.25		mg/L		111	80 - 120		

Lab Sample ID: MB 490-124613/3
Matrix: Water
Analysis Batch: 124613

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			11/25/13 17:16	1

Lab Sample ID: LCS 490-124613/4
Matrix: Water
Analysis Batch: 124613

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			50.0	52.64		mg/L		105	90 - 110		

Lab Sample ID: LCSD 490-124613/5
Matrix: Water
Analysis Batch: 124613

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			50.0	52.77		mg/L		106	90 - 110	0	20

GC/MS VOA

Analysis Batch: 124181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40526-6	TW-17	Total/NA	Water	8260C	
490-40526-9	BR-10	Total/NA	Water	8260C	
490-40526-10	BR-04	Total/NA	Water	8260C	
490-40526-10 MS	BR-04 MS	Total/NA	Water	8260C	
490-40526-10 MSD	BR-04 MSD	Total/NA	Water	8260C	
490-40526-11	BR-03	Total/NA	Water	8260C	
490-40526-13	BR-01	Total/NA	Water	8260C	
LCS 490-124181/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-124181/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-124181/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 124399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40526-1	OB-06	Total/NA	Water	8260C	
490-40526-2	OB-08	Total/NA	Water	8260C	
490-40526-3	BR-15	Total/NA	Water	8260C	
490-40526-4	TW-09	Total/NA	Water	8260C	
490-40526-5	TW-20	Total/NA	Water	8260C	
490-40526-6	TW-17	Total/NA	Water	8260C	
490-40526-7	W-5	Total/NA	Water	8260C	
490-40526-8	DUP-01	Total/NA	Water	8260C	
490-40526-9	BR-10	Total/NA	Water	8260C	
490-40526-10	BR-04	Total/NA	Water	8260C	
490-40526-11	BR-03	Total/NA	Water	8260C	
490-40526-12	BR-02	Total/NA	Water	8260C	
490-40526-13	BR-01	Total/NA	Water	8260C	
490-40526-14	QARB01	Total/NA	Water	8260C	
490-40526-15	QAFB01	Total/NA	Water	8260C	
490-40526-16	QATB01	Total/NA	Water	8260C	
490-40617-B-10 MS	Matrix Spike	Total/NA	Water	8260C	
490-40617-C-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
LCS 490-124399/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-124399/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-124399/6	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 124156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40257-J-1 MS	Matrix Spike	Total/NA	Water	300.0	
490-40526-5	TW-20	Total/NA	Water	300.0	
490-40526-6	TW-17	Total/NA	Water	300.0	
LCS 490-124156/4	Lab Control Sample	Total/NA	Water	300.0	
MB 490-124156/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 124613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40526-1	OB-06	Total/NA	Water	300.0	
490-40526-7	W-5	Total/NA	Water	300.0	
LCS 490-124613/4	Lab Control Sample	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 124613 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 490-124613/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-124613/3	Method Blank	Total/NA	Water	300.0	

Client Sample ID: OB-06

Lab Sample ID: 490-40526-1

Date Collected: 11/13/13 15:15

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 10:23	BJM	TAL NSH
Total/NA	Analysis	300.0		5	124613	11/25/13 23:17	ASL	TAL NSH

Client Sample ID: OB-08

Lab Sample ID: 490-40526-2

Date Collected: 11/14/13 09:12

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 10:51	BJM	TAL NSH

Client Sample ID: BR-15

Lab Sample ID: 490-40526-3

Date Collected: 11/12/13 12:10

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 11:18	BJM	TAL NSH

Client Sample ID: TW-09

Lab Sample ID: 490-40526-4

Date Collected: 11/12/13 13:20

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 11:45	BJM	TAL NSH

Client Sample ID: TW-20

Lab Sample ID: 490-40526-5

Date Collected: 11/14/13 10:40

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 12:13	BJM	TAL NSH
Total/NA	Analysis	300.0		1	124156	11/25/13 05:33	WAM	TAL NSH

Client Sample ID: TW-17

Lab Sample ID: 490-40526-6

Date Collected: 11/14/13 14:40

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124181	11/23/13 08:48	BJM	TAL NSH
Total/NA	Analysis	8260C		5	124399	11/25/13 08:07	BJM	TAL NSH
Total/NA	Analysis	300.0		1	124156	11/25/13 05:54	WAM	TAL NSH

Client Sample ID: W-5 — **Lab Sample ID: 490-40526-7**
Date Collected: 11/14/13 12:15 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 12:40	BJM	TAL NSH
Total/NA	Analysis	300.0		5	124613	11/25/13 23:37	ASL	TAL NSH

Client Sample ID: DUP-01 — **Lab Sample ID: 490-40526-8**
Date Collected: 11/12/13 00:01 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 13:07	BJM	TAL NSH

Client Sample ID: BR-10 — **Lab Sample ID: 490-40526-9**
Date Collected: 11/12/13 14:52 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124181	11/23/13 10:11	BJM	TAL NSH
Total/NA	Analysis	8260C		5	124399	11/25/13 08:35	BJM	TAL NSH

Client Sample ID: BR-04 — **Lab Sample ID: 490-40526-10**
Date Collected: 11/12/13 16:10 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124181	11/23/13 10:39	BJM	TAL NSH
Total/NA	Analysis	8260C		20	124399	11/25/13 09:02	BJM	TAL NSH

Client Sample ID: BR-03 — **Lab Sample ID: 490-40526-11**
Date Collected: 11/13/13 09:00 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124181	11/23/13 11:07	BJM	TAL NSH
Total/NA	Analysis	8260C		5	124399	11/25/13 09:29	BJM	TAL NSH

Client Sample ID: BR-02 — **Lab Sample ID: 490-40526-12**
Date Collected: 11/13/13 11:23 — **Matrix: Water**
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 13:34	BJM	TAL NSH

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Client Sample ID: BR-01

Lab Sample ID: 490-40526-13

Date Collected: 11/14/13 14:13
Matrix: Water
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124181	11/23/13 12:03	BJM	TAL NSH
Total/NA	Analysis	8260C		20	124399	11/25/13 09:56	BJM	TAL NSH

Client Sample ID: QARB01

Lab Sample ID: 490-40526-14

Date Collected: 11/13/13 16:47
Matrix: Water
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 14:29	BJM	TAL NSH

Client Sample ID: QAFB01

Lab Sample ID: 490-40526-15

Date Collected: 11/13/13 16:20
Matrix: Water
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 14:56	BJM	TAL NSH

Client Sample ID: QATB01

Lab Sample ID: 490-40526-16

Date Collected: 11/12/13 00:01
Matrix: Water
Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124399	11/25/13 14:01	BJM	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40526-1

Laboratory: TestAmerica Nashville

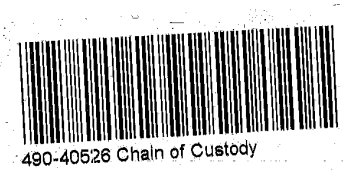
All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-13

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM



Cooler Received/Opened On 11/15/2013 @ 0830

1. Tracking # 4960 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 1.8 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ELA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AJH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AJH

I certify that I attached a label with the unique LIMS number to each container (intial) AJH

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information
Client Contact: Mr. Joe Deatherage
Company: AMEC Environment & Infrastructure, Inc.
Address: 9725 Cogdill Road
City: Knoxville
State, Zip: TN, 37932
Phone: 865-218-1049(Tel)
Email: joe.deatherage@amec.com
Project Name: Former Taylor Instruments
Site:

Sampler: Courtney Price
Phone: 865-207-4625
Lab PM: Brown, Shali
E-Mail: shali.brown@testamericainc.com
Carrier Tracking No(s):

COC No: 490-513-112.2
Page: 1 of 2
Job #:

Due Date Requested:
TAT Requested (days):
PO #: C012601477
WO #:
Project #:
SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chlorde	Sulfate 300.0	Total Number of containers	Special Instructions/Note:
	Preservation Code:						A	N		
OB-06	11/13/13	1515	G	W			X	X	4	
OB-08	11/14/13	0912	G	W			X		4	
BR-15	11/12/13	1210	G	W			X		4	
TW-09	11/12/13	1320	G	W			X	X	4	
TW-20	11/14/13	1040	G	W			X	X	4	
TW-17	11/14/13	1440	G	W			X	X	4	
W-5	11/14/13	1215	G	W			X		3	
DUP-01	—	—	G	W			X		3	
BR-10	11/12/13	1452	G	W			X		3	
BR-04	11/12/13	1610	G	W			X		3	
BR-04 MS	11/12/13	1610	G	W			X		3	

Loc: 490
40526

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

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

Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements:

	Time:	Method of Shipment:		
Empty Kit Relinquished by:	Date:		Date/Time:	Company
Relinquished by:	Date/Time: 11/13/13 1730	Company AMEC	Received by:	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/15/13 8:30 Company TAN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company
Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 1.8	Date/Time: Company

1 2 3 4 5 6 7 8 9 10 11 12 13

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-207-4625	E-Mail: shali.brown@testamericainc.com		Page: 2 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 9725 Cogdill Road	Due Date Requested:			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TN, 37932				Other:
Phone: 865-218-1049(Tel)	PO #: C012601477			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #:			
Site:	SSOW#:			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE Vinyl chloride	Sulfate 300.0	Total Number of containers	Special Instructions/Note:
	Preservation Code:							A	N		
10	BR-04 MSD	11/12/13	1610	G	W			X		3	
11	BR-03	11/13/13	0900	G	W			X		3	
12	BR-02	11/13/13	1123	G	W			X		3	
13	BR-01	11/14/13	1413	G	W			X		3	
14	QARB01	11/13/13	1647	G	W			X		3	
15	QAFB01	11/13/13	1620	G	W			X		3	
16	QAIB01	—	—	—	—			X		3	

Loc: 490
40526
Inc.

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/14/13 1730	AMEC	[signature]	11/15/13 8:30	TAN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.8

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 490-40526-1

Login Number: 40526

List Source: TestAmerica Nashville

List Number: 1

Creator: Huskey, Adam

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-40542-1
Client Project/Site: Former Taylor Instruments

For:
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

Attn: Mr. Joe Deatherage

Authorized for release by:
11/29/2013 1:08:00 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-40542-1	TW-04	Water	11/13/13 12:30	11/15/13 08:30
490-40542-2	OB-04	Water	11/13/13 14:20	11/15/13 08:30
490-40542-3	Trip Blank	Water	11/13/13 00:01	11/15/13 08:30

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Job ID: 490-40542-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-40542-1

Comments
No additional comments.

Receipt
The samples were received on 11/15/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 124750 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

HPLC
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits

Glossary

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

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Client Sample ID: TW-04
Date Collected: 11/13/13 12:30
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40542-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/26/13 16:15	1
cis-1,2-Dichloroethene	**6.87**		1.00		ug/L			11/26/13 16:15	1
Tetrachloroethene	ND		1.00		ug/L			11/26/13 16:15	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 16:15	1
Trichloroethene	ND		1.00		ug/L			11/26/13 16:15	1
Vinyl chloride	ND		1.00		ug/L			11/26/13 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/26/13 16:15*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/26/13 16:15*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*11/26/13 16:15*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*11/26/13 16:15*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**82.7**		1.00		mg/L			11/28/13 17:39	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Client Sample ID: OB-04
Date Collected: 11/13/13 14:20
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40542-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/26/13 16:42	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 16:42	1
Tetrachloroethene	ND		1.00		ug/L			11/26/13 16:42	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 16:42	1
Trichloroethene	**2.95**		1.00		ug/L			11/26/13 16:42	1
Vinyl chloride	**2.44**		1.00		ug/L			11/26/13 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/26/13 16:42*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/26/13 16:42*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*		*11/26/13 16:42*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*11/26/13 16:42*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Client Sample ID: Trip Blank
Date Collected: 11/13/13 00:01
Date Received: 11/15/13 08:30

Lab Sample ID: 490-40542-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/26/13 15:47	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 15:47	1
Tetrachloroethene	ND		1.00		ug/L			11/26/13 15:47	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 15:47	1
Trichloroethene	ND		1.00		ug/L			11/26/13 15:47	1
Vinyl chloride	ND		1.00		ug/L			11/26/13 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/26/13 15:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/26/13 15:47*	*1*
Dibromofluoromethane (Surr)	*91*		*70 - 130*		*11/26/13 15:47*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*11/26/13 15:47*	*1*

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

Lab Sample ID: MB 490-124750/10
Matrix: Water
Analysis Batch: 124750

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/26/13 15:20	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 15:20	1
Tetrachloroethene	ND		1.00		ug/L			11/26/13 15:20	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/26/13 15:20	1
Trichloroethene	ND		1.00		ug/L			11/26/13 15:20	1
Vinyl chloride	ND		1.00		ug/L			11/26/13 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/26/13 15:20*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/26/13 15:20*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*11/26/13 15:20*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*11/26/13 15:20*	*1*

Lab Sample ID: LCS 490-124750/3
Matrix: Water
Analysis Batch: 124750

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			50.0	48.02		ug/L		96	79 - 124		
cis-1,2-Dichloroethene			50.0	45.13		ug/L		90	76 - 125		
Tetrachloroethene			50.0	51.57		ug/L		103	80 - 126		
trans-1,2-Dichloroethene			50.0	46.41		ug/L		93	79 - 126		
Trichloroethene			50.0	45.48		ug/L		91	80 - 123		
Vinyl chloride			50.0	46.50		ug/L		93	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 490-124750/4
Matrix: Water
Analysis Batch: 124750

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			50.0	45.61		ug/L		91	79 - 124	5	17
cis-1,2-Dichloroethene			50.0	42.71		ug/L		85	76 - 125	6	17
Tetrachloroethene			50.0	47.84		ug/L		96	80 - 126	8	16
trans-1,2-Dichloroethene			50.0	42.75		ug/L		86	79 - 126	8	16
Trichloroethene			50.0	42.97		ug/L		86	80 - 123	6	17
Vinyl chloride			50.0	42.69		ug/L		85	68 - 120	9	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

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

Lab Sample ID: LCSD 490-124750/4
Matrix: Water
Analysis Batch: 124750

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: 490-40542-1 MS
Matrix: Water
Analysis Batch: 124750

Client Sample ID: TW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		50.0	34.66	F	ug/L		69	70 - 142
cis-1,2-Dichloroethene	6.87		50.0	36.32	F	ug/L		59	68 - 138
Tetrachloroethene	ND		50.0	33.59	F	ug/L		67	72 - 145
trans-1,2-Dichloroethene	ND		50.0	29.68	F	ug/L		59	66 - 143
Trichloroethene	ND		50.0	30.44	F	ug/L		60	73 - 144
Vinyl chloride	ND		50.0	30.66		ug/L		61	56 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*91*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: 490-40542-1 MSD
Matrix: Water
Analysis Batch: 124750

Client Sample ID: TW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		50.0	32.89	F	ug/L		66	70 - 142	5	17
cis-1,2-Dichloroethene	6.87		50.0	35.09	F	ug/L		56	68 - 138	3	17
Tetrachloroethene	ND		50.0	31.53	F	ug/L		63	72 - 145	6	16
trans-1,2-Dichloroethene	ND		50.0	28.45	F	ug/L		57	66 - 143	4	16
Trichloroethene	ND		50.0	28.56	F	ug/L		56	73 - 144	6	17
Vinyl chloride	ND		50.0	29.17		ug/L		58	56 - 129	5	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-125385/3
Matrix: Water
Analysis Batch: 125385

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			11/28/13 15:39	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 490-125385/4
Matrix: Water
Analysis Batch: 125385

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			50.0	52.25		mg/L		105	90 - 110		

Lab Sample ID: LCSD 490-125385/5
Matrix: Water
Analysis Batch: 125385

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			50.0	52.68		mg/L		105	90 - 110	1	20

Lab Sample ID: 490-40448-A-1 MS
Matrix: Water
Analysis Batch: 125385

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	2.29		50.0	50.60		mg/L		97	80 - 120		

QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

GC/MS VOA

Analysis Batch: 124750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40542-1	TW-04	Total/NA	Water	8260C	
490-40542-1 MS	TW-04	Total/NA	Water	8260C	
490-40542-1 MSD	TW-04	Total/NA	Water	8260C	
490-40542-2	OB-04	Total/NA	Water	8260C	
490-40542-3	Trip Blank	Total/NA	Water	8260C	
LCS 490-124750/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-124750/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-124750/10	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 125385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-40448-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
490-40542-1	TW-04	Total/NA	Water	300.0	
LCS 490-125385/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-125385/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-125385/3	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Client Sample ID: TW-04

Lab Sample ID: 490-40542-1

Date Collected: 11/13/13 12:30

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124750	11/26/13 16:15	MJH	TAL NSH
Total/NA	Analysis	300.0		1	125385	11/28/13 17:39	HMT	TAL NSH

Client Sample ID: OB-04

Lab Sample ID: 490-40542-2

Date Collected: 11/13/13 14:20

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124750	11/26/13 16:42	MJH	TAL NSH

Client Sample ID: Trip Blank

Lab Sample ID: 490-40542-3

Date Collected: 11/13/13 00:01

Matrix: Water

Date Received: 11/15/13 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	124750	11/26/13 15:47	MJH	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-40542-1

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13 *
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-13 *
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13 *
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-13 *
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-15

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-40542 Chain of Custody

Cooler Received/Opened On 11/15/2013 @ 0830

1. Tracking # 4960 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 1.8 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ELA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AJH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AJH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AJH

I certify that I attached a label with the unique LIMS number to each container (intial) AJH

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Courtney Price	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-207-4625	E-Mail: shali.brown@testamericainc.com		Page: 1 of 1
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 9725 Cogdill Road	Due Date Requested:			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012601477			Other:
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #:			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chloride	Sulfate 300.0	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
TW-04	11/13/13	1230	G	W			X	X	4	
OB-04	11/13/13	1420	G	W			X		3	
										Loc: 490 40542

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11/14/13 1730	AMEC	[signature]	11/15/13 8:30	TAN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 490-40542-1

Login Number: 40542

List Source: TestAmerica Nashville

List Number: 1

Creator: Huskey, Adam

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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December 9, 2013

Joe Deatherage
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, TN 37923
USA

RE: **FORMER TAYLOR INSTRUMENTS**
Microseeps Workorder: 10719

Dear Joe Deatherage:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, November 15, 2013. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 12/09/2013
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 19

CERTIFICATE OF ANALYSIS

Microseeps
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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID	Sample ID	Matrix	Date Collected	Date Received
107190001	TW-04	Water	11/13/2013 12:30	11/15/2013 10:30
107190002	OB-04	Water	11/13/2013 14:20	11/15/2013 10:30
107190003	OB-06	Water	11/13/2013 15:15	11/15/2013 10:30
107190004	OB-08	Water	11/14/2013 09:12	11/15/2013 10:30
107190005	TW-20	Water	11/14/2013 10:40	11/15/2013 10:30
107190006	TW-17	Water	11/14/2013 14:40	11/15/2013 10:30
107190007	W-5	Water	11/14/2013 12:15	11/15/2013 10:30

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PROJECT SUMMARY

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Batch Comments

Batch: EDON/1933 - Low Level Volatile Fatty Acids

The matrix spike and/or matrix spike duplicate, recovery or relative percent difference; accuracy influenced by the reference sample 107070001. Analyte Lactic acid. Batch acceptance based on laboratory control sample recovery.

Batch: EDON/1946 - Low Level Volatile Fatty Acids

The method blank contains a reportable concentration above the reporting limit. Analyte Lactic acid. Results for this analyte in associated samples may be bias high.

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190001** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **TW-04** Date Collected: 11/13/2013 12:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.14**	mg/l	0.10	0.013	1			11/24/2013 17:28	KB	
Acetic Acid	**1.2**	mg/l	0.070	0.0050	1			11/24/2013 17:28	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0080	1			11/24/2013 17:28	KB	
Formic Acid	**0.098J**	mg/l	0.10	0.0040	1			11/24/2013 17:28	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.011	1			11/24/2013 17:28	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			11/24/2013 17:28	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			11/24/2013 17:28	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			11/24/2013 17:28	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 17:28	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			11/24/2013 17:28	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**5700**	ug/l	0.10	0.029	1			11/25/2013 15:52	BW	
Ethene	**0.043**	ug/l	0.025	0.0030	1			11/25/2013 15:52	BW	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190002** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **OB-04** Date Collected: 11/13/2013 14:20

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.091J**	mg/l	0.10	0.013	1			11/24/2013 18:14	KB	
Acetic Acid	**6.0**	mg/l	0.070	0.0050	1			11/24/2013 18:14	KB	
Propionic Acid	**0.40**	mg/l	0.050	0.0080	1			11/24/2013 18:14	KB	
Formic Acid	**0.13**	mg/l	0.10	0.0040	1			11/24/2013 18:14	KB	
Butyric Acid	**0.17**	mg/l	0.050	0.011	1			11/24/2013 18:14	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			11/24/2013 18:14	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			11/24/2013 18:14	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			11/24/2013 18:14	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 18:14	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			11/24/2013 18:14	KB	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190003** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **OB-06** Date Collected: 11/13/2013 15:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.10 U**	mg/l	0.10	0.013	1			11/24/2013 19:01	KB	
Acetic Acid	**7.0**	mg/l	0.070	0.0050	1			11/24/2013 19:01	KB	
Propionic Acid	**0.38**	mg/l	0.050	0.0080	1			11/24/2013 19:01	KB	
Formic Acid	**0.16**	mg/l	0.10	0.0040	1			11/24/2013 19:01	KB	
Butyric Acid	**0.34**	mg/l	0.050	0.011	1			11/24/2013 19:01	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			11/24/2013 19:01	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			11/24/2013 19:01	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			11/24/2013 19:01	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 19:01	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			11/24/2013 19:01	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**14000**	ug/l	0.10	0.029	1			11/25/2013 16:02	BW	
Ethene	**7.1**	ug/l	0.025	0.0030	1			11/25/2013 16:02	BW	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190004** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **OB-08** Date Collected: 11/14/2013 09:12

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.15**	mg/l	0.10	0.013	1			11/24/2013 19:47	KB	
Acetic Acid	**0.075**	mg/l	0.070	0.0050	1			11/24/2013 19:47	KB	
Propionic Acid	**0.015J**	mg/l	0.050	0.0080	1			11/24/2013 19:47	KB	
Formic Acid	**0.078J**	mg/l	0.10	0.0040	1			11/24/2013 19:47	KB	
Butyric Acid	**0.042J**	mg/l	0.050	0.011	1			11/24/2013 19:47	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			11/24/2013 19:47	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			11/24/2013 19:47	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			11/24/2013 19:47	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 19:47	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			11/24/2013 19:47	KB	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190005** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **TW-20** Date Collected: 11/14/2013 10:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.28**	ug/l	0.10	0.029	1			11/25/2013 16:13	BW	
Ethene	**0.011J**	ug/l	0.025	0.0030	1			11/25/2013 16:13	BW	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190006** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **TW-17** Date Collected: 11/14/2013 14:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.72J**	mg/l	1.0	0.13	10			12/6/2013 20:48	KB	
Acetic Acid	**190**	mg/l	7.0	0.50	100			12/6/2013 21:34	KB	
Propionic Acid	**15**	mg/l	5.0	0.80	100			12/6/2013 21:34	KB	
Formic Acid	**6.6**	mg/l	1.0	0.040	10			12/6/2013 20:48	KB	
Butyric Acid	**26**	mg/l	0.50	0.11	10			12/6/2013 20:48	KB	
Pyruvic Acid	**0.92**	mg/l	0.15	0.014	1			11/24/2013 20:33	KB	
i-Pentanoic Acid	**1.0**	mg/l	0.15	0.0090	1			11/24/2013 20:33	KB	
Pentanoic Acid	**0.39**	mg/l	0.070	0.011	1			11/24/2013 20:33	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 20:33	KB	
Hexanoic Acid	**7.8**	mg/l	5.0	2.2	10			12/6/2013 20:48	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**11000**	ug/l	0.10	0.029	1			11/25/2013 16:23	BW	
Ethene	**5.9**	ug/l	0.025	0.0030	1			11/25/2013 16:23	BW	

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ANALYTICAL RESULTS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID: **107190007** Date Received: 11/15/2013 10:30 Matrix: Water

Sample ID: **W-5** Date Collected: 11/14/2013 12:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.89J**	mg/l	1.0	0.13	10			12/6/2013 22:20	KB	
Acetic Acid	**0.089**	mg/l	0.070	0.0050	1			11/24/2013 21:19	KB	
Propionic Acid	**0.050**	mg/l	0.050	0.0080	1			11/24/2013 21:19	KB	
Formic Acid	**0.089J**	mg/l	0.10	0.0040	1			11/24/2013 21:19	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.011	1			11/24/2013 21:19	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.014	1			11/24/2013 21:19	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.0090	1			11/24/2013 21:19	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.011	1			11/24/2013 21:19	KB	
i-Hexanoic Acid	**0.10 U**	mg/l	0.10	0.029	1			11/24/2013 21:19	KB	
Hexanoic Acid	**0.50 U**	mg/l	0.50	0.22	1			11/24/2013 21:19	KB	
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Methane	**54**	ug/l	0.10	0.029	1			11/25/2013 16:34	BW	
Ethene	**15**	ug/l	0.025	0.0030	1			11/25/2013 16:34	BW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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QUALITY CONTROL DATA

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

QC Batch: EDON/1933 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 107190001, 107190002, 107190003, 107190004, 107190006, 107190007

METHOD BLANK: 24418

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.092J	0.10	
Acetic Acid	mg/l	0.016J	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Formic Acid	mg/l	0.061J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
i-Hexanoic Acid	mg/l	0.10 U	0.10	
Hexanoic Acid	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE: 24419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	93	70-130	
Acetic Acid	mg/l	2	1.9	97	70-130	
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	2.0	98	70-130	
Butyric Acid	mg/l	2	2.2	109	70-130	
Pyruvic Acid	mg/l	2	1.8	89	70-130	
i-Pentanoic Acid	mg/l	2	2.0	102	70-130	
Pentanoic Acid	mg/l	2	1.7	86	70-130	
i-Hexanoic Acid	mg/l	2	1.9	93	70-130	
Hexanoic Acid	mg/l	2	1.6	80	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24420 24421 Original: 107070001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	1.9	2	2.3	1.7	18	-14	70-130	2070	30	

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QUALITY CONTROL DATA

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 24420 24421 Original: 107070001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	0.24	2	2.2	2.4	96	108	70-130	12	30	
Propionic Acid	mg/l	0.086	2	1.9	1.9	92	93	70-130	1.1	30	
Formic Acid	mg/l	0.2	2	1.9	1.9	84	86	70-130	2.4	30	
Butyric Acid	mg/l	0	2	2.3	2.3	116	117	70-130	0.86	30	
Pyruvic Acid	mg/l	0	2	1.9	2.0	97	100	70-130	3	30	
i-Pentanoic Acid	mg/l	0	2	2.0	2.0	100	98	70-130	2	30	
Pentanoic Acid	mg/l	0	2	1.8	1.8	89	90	70-130	1.1	30	
i-Hexanoic Acid	mg/l	0	2	1.9	1.9	96	93	70-130	3.2	30	
Hexanoic Acid	mg/l	0	2	1.8	1.8	90	93	70-130	3.3	30	

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QUALITY CONTROL DATA

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

QC Batch: DISG/3431 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 107190001, 107190003, 107190005, 107190006, 107190007

METHOD BLANK: 24446

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethene	ug/l	0.025 U	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 24447 24448

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	680	680	91	91	80-120	0	20	
Ethene	ug/l	35	34	34	98	98	80-120	0	20	

Microseeps
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

QC Batch: EDON/1946 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 107190006, 107190007

METHOD BLANK: 24673

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.22	0.10	
Acetic Acid	mg/l	0.020J	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Formic Acid	mg/l	0.067J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Hexanoic Acid	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE: 24674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	97	70-130	
Acetic Acid	mg/l	2	2.1	104	70-130	
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	2.0	99	70-130	
Butyric Acid	mg/l	2	2.2	109	70-130	
Hexanoic Acid	mg/l	2	1.6	82	70-130	

Microseeps
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 10719 FORMER TAYLOR INSTRUMENTS

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
107190001	TW-04			AM23G	EDON/1933
107190002	OB-04			AM23G	EDON/1933
107190003	OB-06			AM23G	EDON/1933
107190004	OB-08			AM23G	EDON/1933
107190006	TW-17			AM23G	EDON/1933
107190007	W-5			AM23G	EDON/1933
107190001	TW-04			AM20GAX	DISG/3431
107190003	OB-06			AM20GAX	DISG/3431
107190005	TW-20			AM20GAX	DISG/3431
107190006	TW-17			AM20GAX	DISG/3431
107190007	W-5			AM20GAX	DISG/3431
107190006	TW-17			AM23G	EDON/1946
107190007	W-5			AM23G	EDON/1946

Pace Analytical
www.pacelabs.com
Microseeps

10719

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

003376

Section A Required Client Information:

Company:	AMEC
Address:	9725 Cogdill Rd
	Knoxville, TN 37932
Email To:	Joe.Deatherage@amec.com
Phone: 865-218-1049	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Joe Deatherage
Copy To:	
Purchase Order No.:	C012601775
Project Name:	Former Taylor Instruments
Project Number:	3031-05-2006.27

Section C Invoice Information:

Attention:	Joe Deatherage
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP NA_3PO_4	Bark benzalkonium Cl	Zinc Acetate & NaOH	Other	Analysis Test Y/N	VFAs	methane/ethene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TW-04	WT	G	11/13/13	1230	—	—	—	4					X	X				X	X		
2	OB-04	WT	G	11/13/13	1420	—	—	—	2						X				X			
3	OB-06	WT	G	11/13/13	1515	—	—	—	4					X	X				X	X		
4	OB-08	WT	G	11/14/13	0912	—	—	—	2						X				X			
5	TW-20	WT	G	11/14/13	1040	—	—	—	2					X						X		
6	TW-17	WT	G	11/14/13	1440	—	—	—	4					X	X				X	X		
7	W-5	WT	G	11/14/13	1215	—	—	—	4					X	X				X	X		
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Country Price	11/14/13	1730	[illegible]	11.15.13	1030	2	Y		

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Country Price

SIGNATURE of SAMPLER: Country Price

DATE Signed (MM/DD/YY): 11/14/13

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

APPENDIX E

FIELD DATA RECORDS

MAY 2013
FIELD DATA RECORDS

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0740 END 1000

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 2.95 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 6.34 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

DRAWDOWN: 3.39 FT

DRAWDOWN VOLUME: 0.54 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.09 L/MIN

BEGIN PURGING: 0743

END PURGING: 0952

TOTAL VOL. PURGED: 3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0752	fc	6.80	0.588	12.3	2.66	12.27	-60.5	4.69	grey tint
0809	2	6.96	0.568	13.6	0.29	12.52	-169.3	6.25	strong odor
0822	2	7.02	0.596	9.6	0.55	12.49	-225.2	6.50	
0914	5	6.93	0.620	4.0	0.49	11.94	-221.2	6.48	
0925	1	6.91	0.631	5.0	0.56	12.17	-227.2	6.46	
0938	1	6.91	0.681	5.4	0.90	13.02	-239.6	6.41	
0945	0.6	6.93	0.693	6.3	0.87	13.41	-247.3	6.37	
0952	0.6	6.90	0.711	4.5	0.82	13.49	-244.6	6.34	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14

initial slug - black flakes

SIGNATURE: _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	0955
[X]	VFAs		0955
[ ]	Sulfate		
[ ]	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1020 END 1200

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.4 FT

INITIAL DEPTH TO WATER: 3.59 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 5.65 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

DRAWDOWN: 2.06 FT

DRAWDOWN VOLUME: 0.33 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.085 L/MIN

BEGIN PURGING: 1023

END PURGING: 1141

TOTAL VOL. PURGED: 1.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1032	FC	7.44	0.805	0.6	1.03	13.86	-242.5	4.56	strong odor
1049	2	7.26	0.785	5.0	2.17	13.49	-275.1	5.40	
1108	2	7.23	0.781	6.6	1.77	13.94	-272.2	5.68	
1117	1	7.19	0.780	5.9	1.56	14.04	-273.6	5.72	
1127	1	7.17	0.784	3.3	1.52	14.23	-274.0	5.79	
1134	0.6	7.15	0.790	1.3	1.50	14.61	-270.7	5.66	
1141	0.6	7.14	0.797	2.1	1.52	14.87	-269.4	5.65	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 16.5

SIGNATURE: _____

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1146
X	VFAs		
X	Sulfate		
X	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/14/13

SITE ID: OB-08

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1635 END

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER: 5.53 FT

WELL DEPTH: 25.3 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 7.27 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	N/A		
CASING	N/A		
LOCKED			
COLLAR			X

DRAWDOWN: 1.74 FT

DRAWDOWN VOLUME: 0.28 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.09 L/MIN

BEGIN PURGING: 1638

END PURGING: 1754

TOTAL VOL. PURGED: 1.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1646	FC	7.27	0.770	0.3	1.07	15.13	-129.7	6.68	very strong odor
1708	2	7.17	0.783	0.7	0.16	14.92	-128.4	7.48	
1721	1	7.17	0.776	11.0	0.14	14.87	-120.8	7.40	
1732	1	7.09	0.772	23.6	0.12	14.70	-115.5	7.34	
1742	1	7.09	0.767	22.7	0.11	14.60	-108.2	7.33	
1754	1	7.17	0.767	19.7	0.11	14.64	-114.5	7.27	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (If applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 20

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1800
[X]	VFAs		1800
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: Cathy Lima

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/13/13

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1430 END

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.6 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	9.57 FT	WELL DEPTH	17.3 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	12.02 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM		
DRAWDOWN	2.45 FT	DRAWDOWN VOLUME	0.4 GAL	PRODUCT THICKNESS	— FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		X

PURGE RATE: 0.1/0.09 L/MIN

BEGIN PURGING: 1436

END PURGING: 1616

TOTAL VOL. PURGED: 2.4 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1443	FC	7.37	0.698	2.2	1.96	13.42	5.5	11.0	
1455	1	7.09	0.690	2.4	1.36	13.58	-22.7	11.41	
1520	3	7.06	0.698	2.9	0.21	12.40	-80.5	12.22	
1540	3	7.08	0.712	3.1	0.15	12.59	-94.8	12.55	
1550	1	7.09	0.723	3.2	0.24	13.13	-97.0	12.27	
1602	1	7.09	0.712	3.2	0.12	12.54	-100.3	12.13	
1608	0.6	7.08	0.712	3.2	0.12	12.80	-101.5	12.06	
1616	0.6	7.11	0.714	3.2	0.13	12.88	-102.2	12.02	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14.8

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1623
X	VFAs		
X	Sulfate		
X	Methane/ethene		

SIGNATURE: Cristy Price

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/14/13

SITE ID: TW-09

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0820 END 1010

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 12.01 FT

WELL DEPTH: 17.70 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.36 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING			
LOCKED	X		
COLLAR			X

DRAWDOWN: 0.35 FT

DRAWDOWN VOLUME: 0.056 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN

BEGIN PURGING: 0827

END PURGING: 0955

TOTAL VOL. PURGED: 2.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0836	FC	6.80	0.653	8.7	4.82	11.08	134.2	12.20	
0845	1	6.88	0.645	7.2	2.89	11.13	-66.1	12.25	
0903	2	6.97	0.638	1.6	2.77	11.21	-87.3	12.31	
0915	1	6.96	0.640	1.4	2.98	11.18	-84.5	12.32	
0925	1	6.98	0.639	1.2	2.92	11.20	-84.5	12.36	
0945	2	6.99	0.638	2.1	2.91	11.43	-82.9	12.41	
0955	1	6.99	0.635	2.2	2.96	11.30	-82.8	12.41	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC; [ ] SUBMERSIBLE; [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED; [X] HIGH DENSITY POLYETHYLENE; [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE; [ ] STAINLESS STEEL; [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON; [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 15

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1000
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 5/15 1805 END 1305 5/16/13

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.4 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 6.41 FT

WELL DEPTH: 17.04 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.00 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	Y		
CASING	Y		
LOCKED	Y		
COLLAR	Y		

DRAWDOWN: 3.59 FT

DRAWDOWN VOLUME: 0.6 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1/.15 L/MIN

BEGIN PURGING: 1805

END PURGING: 1906

TOTAL VOL. PURGED: 1.7 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1814	FC	6.85	1077	27.4	0.41	13.79	-94.7	10.04	
1824	1	6.79	1.063	27.0	0.17	13.56	-92.6	11.61	
1844	2	6.79	1.047	34.9	0.14	13.20	-90.5	13.92	sped pump up ①
1858	2	6.78	1.043	39.0	0.28	12.92	-86.6	16.11	
1906	0.9	6.77	1.055	64.6	0.88	12.29	-84.4	17.04	dry
well dry will sample tomorrow after it recovers									
5/16/13	WL=	8.56	will sample first then try to collect 1 set of readings per KDO						
1304	FC	6.50	1.331	37.9	2.03	16.23	-62.0	9.27	
1311	0.6	6.38	1.274	58.4	2.46	15.56	-52.7	12.00	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14.75

① sped pump up to purge dry per historical data from well - will sample after recovers tomorrow

SIGNATURE: Cathy Price

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1255
X	VFAs		↓
X	Sulfate		
X	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/16/13

SITE ID: TW-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1130 END 1236

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.27 FT

INITIAL DEPTH TO WATER	12.85 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	13.17 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM		
DRAWDOWN	0.32 FT	DRAWDOWN VOLUME	0.05 GAL	PRODUCT THICKNESS	— FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE RATE: 0.1 L/MIN

BEGIN PURGING: 1132

END PURGING: 1228

TOTAL VOL. PURGED: 1.5 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1141	FC	7.47	0.698	1.8	0.57	14.86	20.5	13.02	
1148	1	7.28	0.657	2.1	0.36	13.13	34.6	13.10	
1157	1	7.26	0.661	2.0	0.49	13.31	43.4	13.14	
1206	1	7.25	0.674	2.1	0.52	14.11	46.6	13.14	
1216	1	7.28	0.679	2.1	0.63	14.38	50.8	13.16	
1222	0.6	7.24	0.679	2.1	0.67	14.26	53.6	13.17	
1228	0.6	7.23	0.677	2.1	0.66	14.18	56.2	13.17	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER	[ ] OTHER	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 14.75

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1230
	VFAs		
X	Sulfate		1230
X	Methane/ethene		1230

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/16/13

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0730 END 0945

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 5.47 FT

WELL DEPTH: 21.8 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 9.84 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

DRAWDOWN: 4.37 FT

DRAWDOWN VOLUME: 0.70 GAL

PRODUCT THICKNESS: — FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1/0.125 L/MIN

BEGIN PURGING: 0735

END PURGING: 0921

TOTAL VOL. PURGED: 2.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0740	FC	6.66	0.994	1.2	0.78	11.81	-77.9	7.35	slowed pump
0758	2	6.82	0.986	1.5	0.24	12.17	-87.4	7.86	
0819	2	6.84	1.002	1.7	0.21	12.29	-80.5	8.50	
0838	2	6.84	1.014	1.6	0.27	12.51	-75.3	8.78	
0848	1	6.84	1.020	1.8	0.24	12.53	-72.1	8.85	
0858	1	6.83	1.024	1.8	0.22	12.59	-69.6	8.94	sped up pump
0906	1.5	6.83	1.007	1.7	0.14	12.07	-68.2	9.99	slowed pump
0913	1	6.83	1.014	1.8	0.13	12.41	-68.2	9.90	
0921	1	6.82	1.023	1.8	0.14	12.46	-66.3	9.84	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 19.3

SIGNATURE: Cathy Price

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	0930
X	VFAs		
X	Sulfate		
X	Methane/ethene		

[X] DUP (VOCs reduced list) 0930

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: BR-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1625 END 1803

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER	13.05 FT	WELL DEPTH	38.6 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	13.74 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES X NO — N/A —
DRAWDOWN	0.69 FT	DRAWDOWN VOLUME	0.45 GAL	PRODUCT THICKNESS	— FT	CASING	YES X NO — N/A —
						LOCKED	YES NA NO — N/A —
						COLLAR	YES X NO — N/A —

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN

BEGIN PURGING: 1650

END PURGING: 1758

TOTAL VOL. PURGED: 1.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1656	FC	7.72	0.654	25.9	0.57	16.33	-107.1	13.35	
1712	2	7.46	0.619	24.1	0.13	16.03	-100.7	13.47	
1721	1	7.43	0.655	19.1	0.06	15.66	-97.5	13.60	
1728	1	7.44	0.607	20.1	0.05	14.53	-95.5	13.72	slowed pump
1736	1	7.45	0.591	17.1	0.06	14.29	-95.6	13.74	
1746	1	7.37	0.667	11.3	0.08	14.75	-94.4	13.75	
1752	0.6	7.37	0.684	9.7	0.08	14.57	-95.2	13.75	
1758	0.6	7.32	0.700	6.9	0.08	14.57	-93.9	13.74	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 23.5' BGS

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1600
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: Cathy Price

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/16/13

SITE ID: BR-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0945 END 1130

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	— FT	PROTECTIVE CASING / WELL DIFFERENCE	0.45 FT				
INITIAL DEPTH TO WATER	22.52 FT	WELL DEPTH	44 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	22.81 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES: X; NO: —; N/A: —
DRAWDOWN	2.8 FT	DRAWDOWN VOLUME	1.82 GAL	PRODUCT THICKNESS	— FT	CASING	YES: X; NO: —; N/A: —
						LOCKED	YES: X; NO: —; N/A: —
						COLLAR	YES: —; NO: —; N/A: X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.067 L/MIN (08)	0952	1122	1.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1000	FC	7.69	0.564	85.0	0.70	15.00	-77.6	22.70	
1036	3	7.85	0.566	42.7	0.78	15.95	-84.2	22.80	
1053	1	7.80	0.569	40.3	0.33	16.49	-78.3	22.80	
1104	0.6	7.73	0.575	38.2	0.26	16.94	-89.7	22.80	
1113	0.6	7.87	0.579	37.6	0.27	17.21	-88.4	22.81	
1122	0.6	7.91	0.583	36.7	0.26	17.43	-90.9	22.81	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER	[ ] OTHER	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 25.4 BGS

SIGNATURE:

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1125
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/16/13

SITE ID: BR-03

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1320 END 1445

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.2 FT

PROTECTIVE CASING / WELL DIFFERENCE: — FT

INITIAL DEPTH TO WATER: 10.21 FT

WELL DEPTH: 40.1 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 11.31 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DRAWDOWN: 1.10 FT

DRAWDOWN VOLUME: 0.7 GAL

PRODUCT THICKNESS: ✓ FT

((Initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN

BEGIN PURGING: 1328

END PURGING: 1440

TOTAL VOL. PURGED: 1.9 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1334	fc	7.48	0.710	231.1	2.71	15.44	-150.1	10.65	
1351	2	7.73	0.685	36.0	0.45	15.90	-183.2	11.10	
1409	2	7.84	0.691	29.7	0.22	16.19	-189.4	11.27	
1420	1	7.83	0.700	27.7	0.23	16.91	-183.9	11.31	
1430	1	7.84	0.703	25.8	0.20	16.99	-183.7	11.31	
1440	1	7.87	0.705	24.0	0.21	17.18	-184.7	11.31	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 23.5 @ 65

initial slug very dark/silty

SIGNATURE: _____

NOTES

	Preservation	Time Collected
[X] VOC (modified list)	HCL	1442
[ ] VFAs		
[ ] Sulfate		
[ ] Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event
DATE: 5/15/13
SITE ID: BR-04
SITE TYPE: Monitor Well
SITE ACTIVITY: START 1200 END 1410
JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER ____

PROTECTIVE CASING STICKUP (FROM GROUND)	— FT	PROTECTIVE CASING / WELL DIFFERENCE	0.25 FT				
INITIAL DEPTH TO WATER	17.67 FT	WELL DEPTH	44.2 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	17.68 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES / NO / N/A
DRAWDOWN	0.01 FT	DRAWDOWN VOLUME	0.0065 GAL	PRODUCT THICKNESS	— FT	CASING	N/A
						LOCKED	N/A
						COLLAR	N/A

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.1 L/MIN	1246	1352	1.7 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1254	cc	7.50	1.610	16.5	1.61	18.74	-84.2	17.66	
1303	1	7.31	1.610	6.0	1.58	17.94	-67.4	17.67	
1317	1	7.27	1.590	5.1	1.43	16.70	-58.0	17.68	
1325	1	7.26	1.583	2.6	1.19	16.53	-54.7	17.68	
1335	1	7.24	1.617	1.8	0.79	17.26	-54.3	17.68	
1342	1	7.27	1.631	0.4	0.39	17.47	-53.5	17.68	
1347	0.6	7.29	1.635	2.6	0.36	17.54	-52.8	17.68	
1352	0.6	7.27	1.650	0.3	0.35	17.62	-53.1	17.68	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER ____	[ ] OTHER ____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 26.5 bgs
sampled with tubing inside 3/4" PVC pipe with tubing sticking out ~0.5'

SIGNATURE: [signature]

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1400
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

BR-04 MS 1400
BR-04 MSD 1400

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: BR-10

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1417 END 1620

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 17.27 FT

WELL DEPTH: 47.0 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 6 IN

FINAL DEPTH TO WATER: 17.29 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	—	—	X

DRAWDOWN: 0.02 FT

DRAWDOWN VOLUME: 0.3 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.075 L/MIN

BEGIN PURGING: 1423

END PURGING: 1612

TOTAL VOL. PURGED: 2.2 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1429	fc	8.36	0.529	132.8	1.13	17.21	-61.2	17.27	
1440	2	8.11	0.464	84.5	0.38	15.98	-83.1	17.27	
1513	5	8.07	0.461	50.1	0.46	15.74	-34.5	17.28	
1528	2	8.18	0.480	43.2	0.79	17.09	-21.4	17.28	
1555	3	8.13	0.473	38.0	0.33	16.78	-40.0	17.28	
1603	1	8.13	0.468	36.2	0.34	16.30	-45.3	17.28	
1612	1	8.11	0.469	35.4	0.34	16.40	-44.9	17.29	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 25.5' BGS

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1615
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/14/13

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1012 END 1330

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER	18.75 FT	WELL DEPTH	72 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	21.74 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM		
DRAWDOWN	2.99 FT	DRAWDOWN VOLUME	4.5 GAL	PRODUCT THICKNESS	— FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.1 L/MIN (sampled at)	1017	1315	7.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1022	FC	7.51	0.590	4.3	4.03	14.00	-112.3	18.95	
1037	3	7.54	0.445	7.5	1.35	14.18	-133.1	19.40	
1057	4	7.76	0.341	8.5	1.38	14.20	-131.9	20.08	
1115	4	7.49	0.386	4.2	2.04	14.44	-135.2	20.71	
1130	3.75	7.55	0.424	4.9	1.88	14.83	-138.7	21.25	slowed pump
1150	4	7.55	0.400	5.9	1.91	15.01	-135.8	21.58	slowed pump
1215	2	7.60	0.394	4.9	1.78	15.75	-131.6	21.70	slowed pump
1246	2	7.69	0.448	3.1	1.76	16.04	-131.0	21.75	
1301	1	7.64	0.495	3.1	1.76	16.91	-137.1	21.75	
1308	0.6	7.65	0.505	3.2	1.71	16.97	-143.1	21.75	
1315	0.6	7.59	0.511	2.6	1.73	16.81	-144.7	21.74	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (If applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 24.5

initial slug black (dirt)

will leave at higher flowrate to drawdown then low pump per historical events

SIGNATURE: _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1319
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: ~~

SITE ID: QATB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START ~~ END ~~

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): NA FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER: NA FT

WELL DEPTH: NA FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: NA IN

FINAL DEPTH TO WATER: NA FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

DRAWDOWN: NA FT

DRAWDOWN VOLUME: NA GAL

PRODUCT THICKNESS: NA FT

((Initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-Inch})

PURGE RATE: NA L/MIN

BEGIN PURGING: NA

END PURGING: NA

TOTAL VOL. PURGED: NA GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
LAB PROVIDED									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER NA

TYPE OF BLADDER MATERIAL (If applicable)
- [ ] TEFLON
- [ ] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ _____

SIGNATURE: [signature]

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	~~
[ ]			
[ ]			
[ ]			

Q

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 5/15/13

SITE ID: QAFB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1818 END 1825

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): NA FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER: NA FT

WELL DEPTH: NA FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: NA IN

FINAL DEPTH TO WATER: NA FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

DRAWDOWN: NA FT

DRAWDOWN VOLUME: NA GAL

PRODUCT THICKNESS: NA FT

WELL INTEGRITY:	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: NA L/MIN

BEGIN PURGING: NA

END PURGING: NA

TOTAL VOL. PURGED: NA GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
	collected	from	DI water						

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ _____

SIGNATURE: Cathy Price

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1822
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 5/16/13

SITE ID: QARB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1445 END 1450

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): NA FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER: NA FT

WELL DEPTH: NA FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: NA IN

FINAL DEPTH TO WATER: NA FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

DRAWDOWN: NA FT

DRAWDOWN VOLUME: NA GAL

PRODUCT THICKNESS: NA FT

WELL INTEGRITY:	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: NA L/MIN

BEGIN PURGING: NA

END PURGING: NA

TOTAL VOL. PURGED: NA GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
Used Peristaltic pump and clean tubing to collect sample from DI water									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ _____

SIGNATURE: _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1445
[ ]			
[ ]			
[ ]			

Q

NOVEMBER 2013
FIELD DATA RECORDS

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1240 END 1427

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

INITIAL DEPTH TO WATER	2.98 FT	WELL DEPTH	16.45 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	— FT
FINAL DEPTH TO WATER	6.29 FT	SCREEN LENGTH	5 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.3 FT
DRAWDOWN	3.31 FT	DRAWDOWN VOLUME	0.53 GAL	PID AMBIENT AIR	— PPM
				PID WELL MOUTH	— PPM
				PRODUCT THICKNESS	— FT
				WELL DIAMETER	2 IN

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	—	—	X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.09 L/MIN (15/.1)

BEGIN PURGING: 1249

END PURGING: 1417

TOTAL VOL. PURGED: 2.24 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1252	5C	6.78	0.945	6.1	2.84	11.51	-100	3.93	strong odor
1305	2	6.62	0.964	9.8	0.55	13.23	-135	5.64	black tint
1316	1	6.63	0.993	38.4	0.42	13.38	-189	6.00	slowed pump
1336	2	6.62	1.03	18.4	0.34	13.08	-238	6.23	
1346	1	6.60	1.06	12.2	0.33	12.74	-238	6.28	
1356	1	6.60	1.06	11.3	0.31	12.83	-237	6.30	
1406	1	6.61	1.12	11.5	0.30	12.95	-234	6.32	black flakes
1417	1	6.59	1.17	11.7	0.32	12.50	-229	6.29	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14

samples clear but have black flakes in them

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1420
[X]	VFAs		1420
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1430 END 1525

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.4 FT

INITIAL DEPTH TO WATER: 3.49 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 5.42 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: — PPM

DRAWDOWN: 1.93 FT

DRAWDOWN VOLUME: 0.31 GAL

PRODUCT THICKNESS: — FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	—	—	X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN

BEGIN PURGING: 1432

END PURGING: 1512

TOTAL VOL. PURGED: 1.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

18/125/1

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1434	FC	6.93	1.14	1.5	2.92	13.39	-211	4.14	
1445	2	6.76	1.16	0.3	0.46	14.57	-224	5.52	
1453	1	6.75	1.17	0.4	0.37	13.99	-226	5.55	
1503	1	6.80	1.18	0.3	0.39	13.65	-229	5.43	
1512	1	6.72	1.18	0.1	0.36	13.72	-232	5.42	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 11.5

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1515
X	VFAs		
X	Sulfate		
X	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/14/13

SITE ID: OB-08

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0755 END 0920

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER: 5.25 FT

WELL DEPTH: 25.3 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 7.30 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	—	—	—
COLLAR	—	—	X

DRAWDOWN: 2.05 FT

DRAWDOWN VOLUME: 0.33 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-Inch})

PURGE RATE: 0.1 L/MIN .14/.125/.1

BEGIN PURGING: 0758

END PURGING: 0909

TOTAL VOL. PURGED: 2 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0807	FC	5.87	0.330	2.1	5.34	13.29	26	6.63	slowed pump
0821	2	6.81	0.313	6.0	1.36	14.46	-120	7.35	slowed pump
0829	1	7.17	0.303	6.0	1.52	14.02	-130	7.39	strong odor
0846	2	6.95	0.316	9.5	1.04	13.73	-137	7.35	
0859	1	7.00	0.332	7.4	0.94	13.53	-142	7.30	
0904	0.6	7.02	0.334	5.8	0.88	13.55	-143	7.30	
0909	0.6	7.03	0.340	6.4	0.84	13.67	-145	7.30	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 20

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	0912
[X]	VFAs		0912
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: ~~11/12/13~~ 11/13/13 (MP)

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START ~~0815~~ 1130 END

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	2.6 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.25 FT		
INITIAL DEPTH TO WATER	9.91 FT	WELL DEPTH	17.3 FT	PID AMBIENT AIR	— PPM
WELL DIAMETER	2 IN				
FINAL DEPTH TO WATER	13.17 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM
DRAWDOWN	3.26 FT	DRAWDOWN VOLUME	0.52 GAL	PRODUCT THICKNESS	— FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.120 L/MIN 11/12/12	1133	1227	2.03 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1135	~~2~~	7.08	0.841	6.7	3.44	12.98	-18	10.89	
1141	2	6.69	0.818	6.4	0.82	14.45	-11	13.05	slowed pump
1147	1	6.73	0.793	3.6	01.21	13.73	-38	13.38	
1155	1	6.83	0.770	3.4	0.62	12.74	-64	13.10	pump keeps stopping
1203	1	6.90	0.752	2.4	0.60	12.98	-87	13.31	too slow
1208	0.6	6.90	0.748	2.6	0.57	12.84	-91	13.15	
1213	0.6	6.95	0.746	2.3	0.54	12.85	-100	13.19	
1218	0.6	6.99	0.748	2.2	0.53	12.00	-108	12.90	
1222	0.6	7.02	0.728	1.9	0.49	12.93	-117	13.17	
1227	0.6	7.03	0.732	1.9	0.50	12.65	-123	13.17	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 14.8

NOTES

		Preservation	Time Collected
X	VOC (modified list)	HCL	1230
X	VFAs		
X	Sulfate		
X	Methane/ethene		

SIGNATURE: _____

pump set low as possible - keeps quilting but recharges quickly

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/12/13

SITE ID: TW-09

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1225 END

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 11.80 FT

WELL DEPTH: 17.70 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.14 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	Y		
CASING	Y		
LOCKED			
COLLAR			X

DRAWDOWN: 0.34 FT

DRAWDOWN VOLUME: 0.05 GAL

PRODUCT THICKNESS: — FT

((Initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.125 L/MIN .167/.084/.14

BEGIN PURGING: 1230

END PURGING: 1316

TOTAL VOL. PURGED: 1.58 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1232	EC	7.25	0.659	6.8	1.17	14.46	-41.2	12.03	
1244	2	7.23	0.643	1.0	0.27	14.70	-90.6	12.10	
1252	1	7.24	0.692	1.7	0.23	14.15	-94.4	12.10	
1259	1	7.24	0.629	5.2	0.21	14.48	-95.9	12.13	
1308	1	7.23	0.625	7.1	0.22	14.23	-98.7	12.14	
1316	1	7.29	0.618	7.3	0.21	14.09	-99.0	12.14	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 15

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1320
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1530 END 1500

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.4 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	7.70 FT	WELL DEPTH	17.04 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	10.00 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM		
DRAWDOWN	2.3 FT	DRAWDOWN VOLUME	0.37 GAL	PRODUCT THICKNESS	— FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED			
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN 1067/1125/18

BEGIN PURGING: 1535

END PURGING: 1640

TOTAL VOL. PURGED: 2.12 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1538	FC	6.86	1.68	29.2	4.62	9.87	-156	8.47	milky white
1553	1	6.64	1.63	28.0	1.46	9.82	-159	9.22	
1617	3	6.59	1.53	34.5	0.42	12.13	-164	12.45	
1640	4.2	6.69	1.65	28.5	0.76	12.83	-117	17.05	DRY
11/14/13	WL @ 7.64 will sample first two collect readings (1 set) per KJD								
1440	collect samples		samples @ 1445		WL @ 8.7				
1448	FC	6.60	1.44	33.2	2.92	12.86	-92	9.18	
1458	1	6.44	1.42	33.0	0.93	13.49	-103	10.00	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14.75

* increased pump speed per historical data from well - will dry it today and sample tomorrow

SIGNATURE: _____

NOTES

	Preservation	Time Collected
[X] VOC (modified list)	HCL	1440
[X] VFAs		
[X] Sulfate		
[X] Methane/ethene		

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/14/13

SITE ID: TW-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0920 END 1045

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.27 FT

INITIAL DEPTH TO WATER: 12.38 FT

WELL DEPTH: 17.22 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.85 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED			X
COLLAR	X		

DRAWDOWN: 0.47 FT

DRAWDOWN VOLUME: 0.08 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.08 L/MIN

BEGIN PURGING: 0933

END PURGING: 1035

TOTAL VOL. PURGED: 1.53 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0940	FC	6.88	0.861	1.7	3.60	11.13	6	12.57	
0959	2	6.91	0.879	0.0	1.25	11.98	2	12.81	
1007	1	6.95	0.878	0.0	1.20	11.87	5	12.83	
1015	1	6.90	0.877	0.1	1.14	12.00	6	12.85	
1023	1	6.89	0.879	0.0	1.03	12.03	9	12.87	
1035	1	6.90	0.886	0.0	1.00	11.69	15	12.85	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14.75

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1040
[ ]	VFAs		
[X]	Sulfate		1040
[X]	Methane/ethene		1040

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/14/13

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1050 END 1230

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	5.13 FT	WELL DEPTH	21.8 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	7.54 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES: XXX
DRAWDOWN	2.41 FT	DRAWDOWN VOLUME	0.39 GAL	PRODUCT THICKNESS	— FT	CASING	
						LOCKED	
						COLLAR	NO: XXX; N/A: X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.083 L/MIN .125/1

BEGIN PURGING: 1100

END PURGING: 1206

TOTAL VOL. PURGED: 1.82 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1102	FC	6.89	1.30	0.3	3.66	13.11	-63	5.90	
1126	3	6.52	1.27	0.0	0.67	14.14	-80	7.80	
1134	1	6.59	01.28	0.0	0.63	13.80	-78	7.90	
1144	1	6.51	1.28	0.0	0.56	13.68	-75	7.72	
1154	1	6.50	1.29	0.0	0.59	13.65	-74	7.63	
1206	1	6.57	1.29	0.0	0.62	13.95	-73	7.54	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 19.3

NOTES

		Preservation	Time Collected
XXXX	VOC (modified list)	HCL	1215
	VFAs		
	Sulfate		
	Methane/ethene		

DUP01 VOCs only 1215

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/14/13

SITE ID: BR-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1230 END 1421

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	2.3 FT	PROTECTIVE CASING / WELL DIFFERENCE	NA FT		
INITIAL DEPTH TO WATER	12.82 FT	WELL DEPTH	38.6 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	13.16 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM		
DRAWDOWN	0.34 FT	DRAWDOWN VOLUME	0.221 GAL	PRODUCT THICKNESS	— FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.09 L/MIN	1240	1411	2 GAL

1/0.06/0.09

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1243	FC	7.19	0.553	11.2	2.91	12.13	-132	13.05	black tint
1303	2	7.06	0.721	6.9	0.63	12.82	-129	13.20	slow pump
1325	2	6.99	0.862	6.9	0.78	12.78	-127	13.22	
1337	1	6.90	0.945	6.9	0.57	12.66	-115	13.19	
1349	1	6.88	0.984	6.0	0.55	12.56	-112	13.15	
1400	1	6.95	0.988	5.6	0.54	12.55	-111	13.16	
1411	1	6.88	0.993	5.1	0.49	12.76	-112	13.16	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 23.5' BGS

initial slug black silty

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1413
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: BR-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1030 END

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.45 FT

INITIAL DEPTH TO WATER	22.55 FT	WELL DEPTH	44 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	22.89 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM		
DRAWDOWN	0.34 FT	DRAWDOWN VOLUME	0.22 GAL	PRODUCT THICKNESS	— FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

PURGE RATE: 0.07 L/MIN (.107 / 11/14/12)

BEGIN PURGING: 1044

END PURGING: 1120

TOTAL VOL. PURGED: 0.86 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1047	Fc	6.52	0.612	169	1.99	14.72	11.0	22.67	
1059	2	7.29	0.656	10.3	0.99	13.44	-114	22.85	slowed pump
1106	1	7.35	0.674	6.5	0.82	13.08	-130	22.88	
1111	0.6	7.37	0.688	4.6	0.76	12.78	-137	22.90	
1120	0.6	7.39	0.694	3.0	0.69	12.15	-141	22.89	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 25.4 BGS

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1123
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: BR-03

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0725 END 0905

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.2 FT

PROTECTIVE CASING / WELL DIFFERENCE: — FT

INITIAL DEPTH TO WATER: 10.18 FT

WELL DEPTH: 40.1 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 11.30 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN: 1.12 FT

DRAWDOWN VOLUME: 0.73 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.1 L/MIN .2/.1/.15/.1

BEGIN PURGING: 0737

END PURGING: 0858

TOTAL VOL. PURGED: 2.7 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	★ pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0739	FC	3.97	0.793	66.3	3.52	10.06	156.0	10.51	
0749	2	3.80	0.660	16.0	1.33	11.06	-182.4	10.95	odor
0758	1	3.69	0.673	5.7	1.14	10.48	-205.6	11.10	black flakes
0808	1	3.50	0.718	0.2	1.02	10.15	-185.4	11.15	
★ 0838	4.5	4.21	0.766	1.8	1.20	10.13	-150.9	11.30	
0848	1	4.18	0.772	3.4	1.28	10.10	-142.5	11.30	
0858	1	4.24	0.781	3.8	1.31	10.58	-133.9	11.30	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER	[ ] OTHER	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 23.5 BGS

initial slugs - black chunks in it

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	0900
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE:

★ recalibrated pH - not calibrating right will fix after well where pH readings are suspect

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/12/13

SITE ID: BR-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1500 END 1625

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	18.60 FT	WELL DEPTH	44.2 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	18.62 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM		
DRAWDOWN	0.02 FT	DRAWDOWN VOLUME	0.013 GAL	PRODUCT THICKNESS	— FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	—	—	—

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.20 L/MIN (.15/.2)

BEGIN PURGING: 1505

END PURGING: 1605

TOTAL VOL. PURGED: 2.85 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1507	FC	7.41	0.200	21.6	1.11	9.67	-23.6	18.60	
1520	2	7.34	0.487	2.8	0.22	10.70	-110.4	18.60	
1530	2	7.33	01.202	8.7	0.12	10.53	-79.6	18.62	
1535	1	7.34	@ 1.224	9.7	0.27	11.01	-75.6	18.62	
1541	1	7.38	1.236	8.7	0.70	11.39	-74.0	18.62	
1547	1	7.38	1.333	8.5	0.57	11.24	-68.1	18.62	
1556	2	7.40	1.399	9.8	0.75	10.95	-65.7	18.62	
1600	1	7.41	1.432	9.5	0.81	10.63	-62.2	18.62	
1605	1	7.40	1.437	6.0	0.82	10.99	-61.9	18.62	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1610
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

MS/MSD VOCs @1610

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/12/13

SITE ID: BR-10

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1330 END 1500

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 18.17 FT

WELL DEPTH: 47 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 6 IN

FINAL DEPTH TO WATER: 18.18 (corr) 0.01 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

DRAWDOWN: 0.01 FT

DRAWDOWN VOLUME: 0.015 GAL

PRODUCT THICKNESS: — FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.125 L/MIN (.181/.214/.2)

BEGIN PURGING: 1343

END PURGING: 1450

TOTAL VOL. PURGED: 3.12 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1347	Fc+0.5	7.11	0.408	101.5	0.70	12.61	-75.6	18.18	
1358	2	7.23	0.484	54.0	0.22	13.37	-116.7	18.17	
1412	3	7.28	0.496	27.0	0.20	13.25	-129.9	18.17	
1422	2	7.33	0.502	17.9	0.21	13.30	-135.4	18.18	
1427	1	7.36	0.501	19.7	0.21	13.10	-132.4	18.18	
1433	1	7.38	0.501	15.1	0.21	12.51	-132.2	18.18	
1442	1	7.41	0.500	13.9	0.21	11.94	-128.7	18.18	
1450	1	7.40	0.497	13.5	0.21	11.87	-126.6	18.18	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 25.5 bgs

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1452
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: 11/12/13

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0825 END 1220

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER	20.02 FT	WELL DEPTH	72 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	22.55 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM		
DRAWDOWN	2.53 FT	DRAWDOWN VOLUME	3.79 GAL	PRODUCT THICKNESS	— FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED			
COLLAR			X

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.09 L/MIN (.25/.18/.08/.1/.09)

BEGIN PURGING: 0914

END PURGING: 1206

TOTAL VOL. PURGED: 4.5 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0915	fc	7.38	0.437	13.7	3.75	12.56	-19.6	20.17	strong odor
0922	2	7.16	0.425	25.0	2.01	13.64	-98.2	20.45	black tint
0933	2	7.22	0.385	61.4	0.84	12.97	-101.3	20.25	slowed pump
1009	3	7.18	0.385	5.17	0.15	11.10	-121.1	20.34	
1038	3	7.03	0.371	1.2	0.11	11.56	-112.1	21.80	
1055	1.5	7.03	0.378	2.0	0.13	11.23	-113.8	21.94	speed pump up
1140	4.5	7.15	0.373	1.6	0.17	12.98	-112.7	22.43	slowed pump
1151	1	7.18	0.375	1.5	0.17	12.59	-104.6	22.50	
1158	0.6	7.20	0.385	8.6	0.17	12.25	-102.0	22.54	
1206	0.6	7.22	0.389	0.8	0.17	12.20	-105.5	22.55	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER	[ ] OTHER	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 29.5' BGS

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1210
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: QARB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1645 END 1650

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): NA FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER: NA FT

WELL DEPTH: NA FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: NA IN

FINAL DEPTH TO WATER: NA FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

DRAWDOWN: NA FT

DRAWDOWN VOLUME: NA GAL

PRODUCT THICKNESS: NA FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: NA L/MIN

BEGIN PURGING: NA

END PURGING: NA

TOTAL VOL. PURGED: NA GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
Used Peristaltic pump and clean tubing to collect sample from DI water									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1647
[ ]			
[ ]			
[ ]			

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2013 Semi-Annual Sampling Event

DATE: 11/13/13

SITE ID: QAFB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1615 END 1622

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): NA FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER	NA FT	WELL DEPTH	NA FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	NA IN
FINAL DEPTH TO WATER	NA FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	NA FT	DRAWDOWN VOLUME	NA GAL	PRODUCT THICKNESS	NA FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: NA L/MIN

BEGIN PURGING: NA

END PURGING: NA

TOTAL VOL. PURGED: NA GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
~~Used Peristaltic pump and silicon tubing to collect sample from DI water~~									
1620	Collated sample from DI water								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ —

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	1620
[ ]			
[ ]			
[ ]			

SIGNATURE: _____

GW_Sample_Form.xls

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2013 Semi-Annual Sampling Event

DATE: —

SITE ID: QAT301

SITE TYPE: Monitor Well

SITE ACTIVITY: START — END —

JOB NUMBER: 3031052006.27

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: — FT

INITIAL DEPTH TO WATER	— FT	WELL DEPTH	— FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	— IN
FINAL DEPTH TO WATER	— FT	SCREEN LENGTH	— FT	PID WELL MOUTH	— PPM		
DRAWDOWN	— FT	DRAWDOWN VOLUME	— GAL	PRODUCT THICKNESS	— FT		

WELL INTEGRITY:	YES	NO	N/A
CAP	—	—	—
CASING	—	—	—
LOCKED	—	—	—
COLLAR	—	—	—

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: — L/MIN

BEGIN PURGING: —

END PURGING: —

TOTAL VOL. PURGED: — GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
	LAB Provided								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ _____

NOTES

		Preservation	Time Collected
[X]	VOC (modified list)	HCL	—
[ ]	VFAs		
[ ]	Sulfate		
[ ]	Methane/ethene		

SIGNATURE: _____

APPENDIX F

WELL CONSTRUCTION INFORMATION

Appendix F
Well Construction Information

2013 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

						Screen Interval		Survey Coordinates			Well Material	Completion		
Well ID	Date Installed	Well Purpose/Type	Well Location	Boring Depth	Well Depth	Top	Bottom	Easting	Northing	Elevation	Riser/Screen	Flush-mount	Vault	Stick-up
BR-01	09/02/97	Monitor	Perimeter	42.2	42.2	NA	NA	750364.06	1150086.89	531.92	Stainless / Open	X		
BR-02	09/02/97	Monitor	Perimeter	44.0	44.0	NA	NA	750541.81	1149964.51	532.39	Stainless / Open	X		
BR-03	09/02/97	Monitor	Perimeter	40.1	40.1	NA	NA	750552.93	1149641.68	536.32	Stainless / Open			X
BR-04	09/03/97	Monitor	South Source	44.2	44.2	NA	NA	750322.96	1149422.13	532.68	Stainless / Open	X		
BR-10	07/28/00	Monitor	South Source	47.0	47.0	NA	NA	750426.90	1149411.76	532.29	Iron / Open	X		
BR-15	07/26/00	Monitor	North Source	72.0	72.0	NA	NA	750293.39	1149980.43	531.69	Iron / Open	X		
OB-04	09/05/97	Monitor	South Source	17.5	17.5	2.5	17.5	750329.65	1149422.19	532.80	PVC	X		
OB-06	07/19/00	Monitor	South Source	17.0	17.0	6.8	16.8	750421.89	1149461.50	532.60	PVC	X		
OB-08	07/28/00	Monitor	North Source	25.5	25.3	15.3	25.1	750279.00	1149957.45	531.64	PVC	X		
TW-04	03/15/96	Monitor	Perimeter	17.5	17.3	12.3	17.3	750552.18	1149648.54	536.34	PVC			X
TW-09	03/30/96	Monitor	Perimeter	16.0	16.0	11.0	16.0	750542.22	1149971.84	532.30	PVC	X		
TW-17	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750373.39	1150088.34	531.86	PVC			X
TW-20	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750547.88	1150118.75	532.42	PVC			X
W-5	09/15/82	Monitor	Perimeter	24.0	20.5	15.5	20.5	750248.88	1150056.27	531.52	PVC	X		

Prepared by/Date: KJD 12/15/10
Checked by/Date: CRW 1/18/11