

2018 PERIODIC REVIEW REPORT

for the

FORMER TAYLOR INSTRUMENTS SITE

95 Ames Street

City of Rochester

Monroe County, New York

NYSDEC Site Number: B8-0508-97-02

Prepared for:

GRAY ROCK ROCHESTER, LLC
14150 Route 31
Savannah, New York 13146

Prepared by:

8232 Loop Road
Baldwinsville, NY 13027
(315) 638-8587



200 North George Street
Rome, NY 13440
(315) 281-1005

Project No. 2019020

March 2019

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EXECUTIVE SUMMARY

As described in the *Soil Management Plan*, prepared by MACTEC Engineering and Consulting, Inc., the Former Taylor Instruments facility operated under several owners from approximately 1904 until 1993. During this period, the facility was a manufacturer of measuring instruments, including thermometers and control systems. The facility was subsequently demolished in 1995. In 1997, the site owner at the time, Combustion Engineering, entered into an Agreement with the New York State Department of Environmental Conservation (DEC) under the Voluntary Cleanup Program (VCP) to investigate and remediate the site.

In August 2018, ABB, Inc. sold the site to Gray Rock Rochester, LLC. As part of the transfer in ownership, ABB maintained responsibility for the monitoring and inspections required under the 2011 Operations, Maintenance and Monitoring (OM&M) Manual. ABB retained Wood Environment & Infrastructure Solutions, Inc. (Wood) to perform these services. On March 4, 2019, Wood submitted a 2018 Annual Progress Report to DEC, which included the groundwater monitoring results. Refer to *Attachment 1 – 2018 Annual Progress Report* for additional information. Wood also prepared a Periodic Review Report and an inspection report of the sub-slab depressurization system (SSD) at 80 Ames Street. Refer to *Attachment 2 – Periodic Review Report* and *Attachment 3 – Institutional and Engineering Controls Certification Form* for additional information.

SITE OVERVIEW

This Periodic Review Report (PRR) is for the former Taylor Instruments facility, located at 95 Ames Street in the City of Rochester, Monroe County, New York (the site). The site consists of one parcel totaling approximately 14.5 acres owned by Gray Rock Rochester, LLC and is currently vacant. The site formerly operated as a manufacturer of measuring instruments, including thermometers and control systems, from approximately 1904 until 1993, when operations ceased. Onsite structures were subsequently demolished in 1995. In 1997, the site owner (Combustion Engineering) entered into an Agreement with the DEC under the VCP to investigate and remediate the site. Remedial activities included cleaning onsite storm sewers, excavation and offsite disposal of shallow soils, a dual-phase vapor extraction (DPVE) system to remediate volatile organic compounds (VOCs) in deeper soils and groundwater, and a groundwater treatment system. Institutional controls and engineering controls (ICs/ECs) were also implemented and included:

- A deed restriction
- Compliance with the Soil Management Plan (SMP)
- A SSD system at the residence located at 80 Ames Street
- An asphalt cap
- Requirement for sub-slab depressurization for future buildings

The Construction Completion Report (CCR) was approved by the DEC in 2011. The 2011 OM&M Manual required semi-annual groundwater monitoring, an annual site-wide inspection and the submission of PRRs. In 2017, the DEC approved a reduction of the sampling schedule for the overburden wells from semi-annually to annually. Bedrock wells continue to be sampled twice per year.

In August 2018, ABB, Inc. sold the site to Gray Rock Rochester, LLC.

A PRR is required by the DEC to verify that the requirements outlined in the OM&M Manual are being adhered to. The PRR covers the period of February 14, 2018 to February 14, 2019.

REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

As detailed in the PRR, remedial activities included cleaning onsite storm sewers, the excavation and offsite disposal of approximately 29,000 tons of impacted soils, implementation of a DPVE system and the use of IC/ECs, including an asphalt cover.

In accordance with the 2018 real estate agreement between ABB and Gray Rock Rochester, Wood performed the required groundwater monitoring for 2018. The results are detailed in the 2018 Annual Progress Report, submitted to the Department March 4, 2019.

INSTITUTIONAL / ENGINEERING CONTROL PLAN COMPLIANCE

The following ICs/ECs were stipulated for the site in the SMP:

- The property may be used for restricted commercial or industrial use.
- Future buildings are prohibited from having subsurface basements.
- Use of groundwater is restricted.
- Future buildings must have SSD systems.
- Any future development of the site must adhere to the 2005 SMP.
- Data and information pertinent to site management must be reported, per the requirements of the OM&M Manual.

- Access to the site must be provided to representatives of the State of New York with reasonable prior notice.
- Use of ICs/ECs must be continued.
- The asphalt cover must be maintained, and any alternative cover material must be approved by the Department.

No IC/EC deficiencies were noted in this reporting period. No changes to the ICs/ECs are recommended.

MONITORING PLAN COMPLIANCE

The following monitoring requirements were stipulated for the site in the OM&M Plan:

- ***Groundwater Quality Monitoring:*** Annually for overburden wells and semi-annually for bedrock wells.
- ***Site-Wide Inspections:*** To be performed during semi-annual groundwater monitoring events.

Monitoring results are documented in the 2018 Annual Progress Report.

CONCLUSIONS AND RECOMMENDATIONS

The requirements for the site for this reporting period have been met.

CERTIFICATION

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

- The institutional controls employed at this site are unchanged from the date the controls were put in place, or last approved by the Department.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control.
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control.
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document.
- Use of the site is compliant with the deed restriction.
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form 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, David K. Meixell, P.E., of Plumley Engineering, P.C., 8232 Loop Road, Baldwinsville, New York, am certifying as Gray Rock Rochester, LLC's Designated Site Representative for the site.


 Signature

March 18, 2019
 Date

ATTACHMENT 1

2018 PROGRESS REPORT



March 4, 2019

Mr. Frank Sowers
Project Manager
NYSDEC
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9516

Subject: **2018 Annual Progress Report
Voluntary Cleanup Agreement (VCA) Index B8-0508-97-02
Former Taylor Instruments Facility
Rochester, New York
Wood Project 3031152028**

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 2018 Annual Progress Report.

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

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

A handwritten signature in black ink that reads "Ricky A. Ryan".

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

A handwritten signature in blue ink that reads "K. Joe Deatherage".

K. Joe Deatherage
Senior Environmental Engineer

Enclosures

cc: Bernette Schilling, NYSDEC (w/o enclosure [*electronic*])
John Frazer, MCDOH (w/o enclosure)
Justin Deming, NYSDOH (w/ 1 electronic enclosure)
Jean McCreary, Nixon Peabody LLP (w/ 1 electronic enclosure)
Rick Podlaski, Thermo Fisher Scientific (w/ 1 electronic enclosure)
Melody Christopher, ABB (w/ 1 hard copy + electronic enclosure)
Vance Litz, ABB (w/ 1 electronic enclosure)
Nelson Walter, Wood (w/o enclosure [*electronic*])

2018 ANNUAL PROGRESS REPORT

FORMER TAYLOR INSTRUMENTS SITE
95 AMES STREET
ROCHESTER, NEW YORK

PREPARED FOR:

ABB, INC.
131 PHOENIX CROSSING
BLOOMFIELD, CT 06002

PREPARED BY:

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
2030 FALLING WATERS ROAD, SUITE 300
KNOXVILLE, TN 37922

WOOD PROJECT 3031152028

March 2019

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Former Taylor Instruments Site
Rochester, New York

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Table 4	Summary of VOC Results for Existing Bedrock Wells for the 2000-2018 Sampling Events

LIST OF ACRONYMS

µg/L	micrograms per liter
µmole/L	micromoles per liter
3DMe®	3-D Microemulsion®
AMEC	AMEC Environment & Infrastructure, Inc.
Amec Foster Wheeler	Amec Foster Wheeler 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
EC	engineering control
EPA	Environmental Protection Agency
IC	institutional control
MS	matrix spike
MS/MSD	matrix spike/matrix spike duplicate
MSD	matrix spike duplicate
mV	millivolt
NYSDEC	New York State Department of Environmental Conservation
OM&M	Operations, Maintenance, and Monitoring
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
QC	quality control
RPD	relative percent difference
Site	former Taylor Instruments Site
TCE	trichloroethene
VC	vinyl chloride
VOC	volatile organic compound
Wood	Wood Environment & Infrastructure Solutions, Inc.

1.0 INTRODUCTION

This annual progress report summarizes the results from groundwater sampling events conducted in May and October 2018. 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 2018 groundwater sampling events were the eighth year of sampling since Wood Environment & Infrastructure Solutions, Inc. (Wood) completed an expanded accelerated bioremediation application using 3-D Microemulsion® (3DMe®) in 2010 as the final required active Site remediation. This continued groundwater sampling is consistent with the objective stated in the approved *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remedial Treatment System* (MACTEC, 2010) for an expanded accelerated bioremediation application followed by monitored natural attenuation as the final remedy for the Site. 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.

During 2018 the Site was sold to Gray Rock Rochester, LLC (Gray Rock). As detailed to NYSDEC in a December 7, 2018 email (Wood, 2018), Gray Rock is the new Site owner and responsible for certification of institutional and engineering controls (ICs/ECs) associated with the Site. On January 3, 2019 NYSDEC submitted to Gray Rock a reminder notice for the Site Periodic Review Report and IC/EC certification submittal (NYSDEC, 2019), that is due March 16, 2019.

The first semi-annual groundwater sampling event for 2018 was conducted in May and the second in October. A summary of the sampling event results from 2001-2018 are included in this report.

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

The 2016 *Periodic Review Report* (Amec Foster Wheeler, 2017) included a request to modify the sampling frequency from semi-annual (twice a year) to annual (once a year) based on the continued demonstrated plume stability. This request was approved by NYSDEC for the overburden wells only (NYSDEC, 2017). Based on the approval from NYSDEC, Wood personnel performed the May and October sampling events to provide an inclusive set of groundwater analytical data for the 2018 reporting period. During the May sampling event of overburden and bedrock wells, 20 samples were collected (overburden wells and bedrock wells), while during the October sampling event of bedrock wells only, 12 samples were collected (bedrock wells only). The samples were submitted to Test America, Inc. for volatile organic compound (VOC) analyses by U.S. Environmental Protection Agency (EPA) Method 8260C (Table 1, Appendix B). As approved by NYSDEC in the revised 2011 *Operations, Maintenance, and Monitoring Manual* (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. The results for the 2018 sampling events are presented in tables in Appendix B. Additionally, to further assess biological parameters supportive for contaminant degradation, selected samples collected during the May sampling event were also analyzed for methane/ethene by Method EPA RSK175. The methane/ethene samples were analyzed by Pace Analytical Energy Services, LLC. The results for these parameters are included in the laboratory reports in Appendix C. Data for dissolved oxygen, oxygen reduction potential, pH, and temperature were also collected in the field during the sampling events. Six of the 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 less than 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 2018 samples are located in Appendix C. Purge and sample field data are presented in the field data records located in Appendix D.

2.2 SUMMARY OF RESULTS

This section presents the results of the groundwater sampling events conducted during 2018. The results summary focuses primarily on the most recent results for each location during the 2018 sampling events. Tables 1 and 2 (Appendix B) summarize the monitoring well locations with COCs exceeding NYSDEC Class GA Standards for overburden and bedrock monitoring wells, respectively. Tables 3 and 4 (Appendix B) 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 2018 events are included in Appendix C. Well construction information is provided in Appendix E.

While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in all Site monitoring wells as compared to historical concentrations. COCs in South Source Area downgradient perimeter well TW-04 were non- detect for the second consecutive year, the first time this has occurred, and have been below the NYSDEC Class GA Standards since May 2016. COCs in the North Source Area bedrock well BR- 15 have also been below the NYSDEC Class GA Standards for the past two years, the first time this has occurred.

As shown in Tables 1 and 2 (Appendix B), during the 2018 sampling events: PCE was not detected at any location above the NYSDEC Class GA Standard of 5 micrograms per liter (µg/L); TCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from five overburden monitoring wells and five bedrock monitoring wells; cis-1,2-DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from six overburden monitoring wells and five bedrock monitoring wells; trans-1,2- DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from five overburden monitoring well and three bedrock monitoring wells; 1,1-DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from one bedrock monitoring well; and vinyl chloride was detected above the NYSDEC Class GA Standard of 2 µg/L in the groundwater samples collected from six overburden monitoring wells and four bedrock monitoring wells.

In the South Source Area contaminant plume COCs in downgradient plume well OB-06 have been stable for several years, while in downgradient perimeter well TW-04 COCs remain non-detect. The results from these two wells demonstrate that the downgradient portion of the South Area contaminant plume remains stable. In North Area perimeter well W-5, TCE is now at a historic low

concentration while vinyl chloride is at a historic high, demonstrating that enhanced reducing conditions continue to be in effect. COCs in North Source Area downgradient perimeter well TW-20 have been stable to declining for several years.

In certain overburden wells the concentrations of certain COCs, primarily daughter products DCE and vinyl chloride, increased from May 2017. In South Source Area well OB-04, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride increased from May 2017, although it's notable that in downgradient plume well OB-06 the mass remains near the historic low observed in May 2017 and in downgradient perimeter well TW-04 all COCs remain non-detect. In North Source Area well OB-08, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride increased from May 2017, but remain much lower than historical concentrations of all three COCs. In North Source Area perimeter well TW-17, TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride increased relative to the past two years. It's notable, however, that the mass in downgradient perimeter well TW-20 has been stable to declining for several years. Despite the recent increase in daughter products in certain wells, the downgradient contaminant plume remains stable as demonstrated by downgradient/perimeter wells OB-06, TW-04 and TW-20.

Decreases in contaminant mass have been noted in the affected overburden groundwater. Corresponding response in the bedrock groundwater has been slower. The combined contaminant mass of the bedrock wells (47.7 micromoles per liter [$\mu\text{mole/L}$]) decreased slightly from 2017 (53.1 $\mu\text{mole/L}$) and has been generally stable since 2014. Some evidence of natural attenuation in bedrock groundwater is apparent, indicating that the bedrock groundwater has been affected by the enhanced contaminant biodegradation in the overburden groundwater. Specific evidence of this is in former North Source Area bedrock well BR-15 where COCs remain below their NYSDEC Class GA standards. Additionally, the decreases in TCE contaminant mass in BR-1 correlate with overall increases in TCE daughter products (cis-1,2-DCE and vinyl chloride) observed in BR-01 the past few years.

Eight years have passed since completion of the expanded accelerated bioremediation application using 3DMe[®] in 2010 as the final required active Site remediation. The downgradient portion of the overburden groundwater contaminant plume in the South Source Area has been stable for several years based on the results of OB-06 and TW-04. The downgradient overburden groundwater contaminant plume in the North Source Area is also demonstrating evidence of plume stability based on results of TW-20.

The May 2018 field parameter data indicate that conditions remain favorable for biodegradation based on the following:

- The average pH in the Site overburden wells is a neutral 7.0 in May 2018.

- The average oxygen reduction potential in the Site overburden wells is -81.5 millivolts.
- The average dissolved oxygen in the Site overburden wells is 1.04 milligrams per liter.
- Methane, an indicator of biological activity, is also very robust in Site overburden wells OB-06, TW-17, and W-5, ranging from 2,400 µg/L to 21,000 µg/L. Ethene, an indicator that complete anaerobic dechlorination of COCs is occurring, was detected in most wells for which it was sampled and is at a moderate concentration in TW-17 (56 µg/L).

2.3 POTENTIOMETRIC SURFACE

Associated with each monitoring event, a potentiometric surface map was generated to depict groundwater elevations for the overburden groundwater. AutoCAD 2015 was used to plot the potentiometric surface maps in Figures 4 and 6 (Appendix A). The program mathematically calculates contours based upon groundwater elevation measurements collected in the field.

The May and October 2018 overburden potentiometric maps (Figures 4 and 6 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 generally 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 bimodally 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 former source areas is generally towards the north/northeast. Bedrock water level elevations are presented on Figures 5 and 7 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 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, an MS and MSD were taken for each set of 20 samples with a net result of one MS/MSD analysis for the May 2018 sampling event and one MS/MSD analysis for the October 2018 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-15 – May 2018

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	MSD Recovery (%)	RPD	Control Limits (%)	RPD Limit
1,1-Dichloroethene	23.16	116	24.61	123	6	54-150	17
cis-1,2-DCE	21.33	103	21.51	104	1	68-131	17
Tetrachloroethene	20.85	104	21.27	106	2	57-138	16
trans-1,2-DCE	23.86	119	24.95	125	4	59-143	16
Trichloroethene	21.36	101	22.82	108	7	63-135	17
Vinyl Chloride	23.39	117	24.16	121	3	57-150	17

BR-15 – October 2018

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	MSD Recovery (%)	RPD	Control Limits (%)	RPD Limit
1,1-Dichloroethene	22.70	113	22.18	111	2	54-150	17
cis-1,2-DCE	23.92	108	24.48	111	2	68-131	17
Tetrachloroethene	22.86	114	22.63	113	1	57-138	16
trans-1,2-DCE	20.57	101	20.94	103	2	59-143	16
Trichloroethene	24.54	111	24.68	112	1	63-135	17
Vinyl Chloride	25.20	118	25.07	118	1	57-150	17

The RPDs did not exceed the National Functional Data Validation Guideline of 30 for water samples and 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 2018 and one duplicate sample for the October 2018 sampling event. Field duplicate precision is presented in the following tables.

W-5 – May 2018

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	104		104		0
	trans-1,2-Dichloroethene	1	13.4		13.1		2.3
	Trichloroethene	1	45.9		44.3		3.5
	Vinyl Chloride	1	78.3		80.6		2.9

BR-15 – October 2018

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
BR-15	cis-1,2-Dichloroethene	1	2.33		2.51		7.4
	Trichloroethene	1	2.29		2.54		10.4
	Vinyl Chloride	1	1.56		1.62		3.8

Field duplicate precision was evaluated between the two data sets for detected compounds. The RPDs did not exceed 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 [Matrix Spike (MS) and Matrix Spike Duplicate (MSD)]. Surrogate and MS/MSD recoveries evaluate accuracy and identify interferences from the sample matrix and were acceptable for VOC analysis 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 2018 event and one field blank for the October 2018 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 in the field blanks.

No target VOCs were detected in the method blank in May 2018 or October 2018.

One trip blank was analyzed during the May 2018 and October 2018 sampling events as part of the VOC laboratory QC program. No target VOCs were detected in 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 2018 event and the October 2018 event. No target VOCs were detected in the rinsate blanks.

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 sampling events that occurred from 2001-2018 provides an evaluation of the Site remedial progress. The following overall conclusions and recommendations have been reached in this 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.
- While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in all Site monitoring wells as compared to historical concentrations. COCs in South Source Area downgradient perimeter well TW-04 were non-detect for the second consecutive year, the first time this has occurred, and have been below the NYSDEC Class GA Standards since May 2016. COCs in the North Source Area bedrock well BR-15 have also been below the NYSDEC Class GA Standards for the past two years, the first time this has occurred.
- In the South Source Area contaminant plume COCs in downgradient plume well OB-06 have been stable for several years, while in downgradient perimeter well TW-04 COCs remain non-detect. The results from these two wells demonstrate that the downgradient portion of the South Area contaminant plume remains stable.
- In North Area perimeter well W-5, TCE is now at a historic low concentration while vinyl chloride is at a historic high, demonstrating that reducing conditions and biological breakdown continue to be in effect. COCs in North Source Area downgradient perimeter well TW-20 have been stable to declining for several years, indicating that the downgradient portion of the North Area contaminant plume is stable.
- The combined contaminant mass of the bedrock wells (47.7 $\mu\text{mole/L}$) decreased slightly from 2017 (53.1 $\mu\text{mole/L}$) and has been generally stable since 2014. Some evidence of natural attenuation in bedrock groundwater is apparent, indicating that the bedrock groundwater has been affected by the contaminant biodegradation in the overburden groundwater.

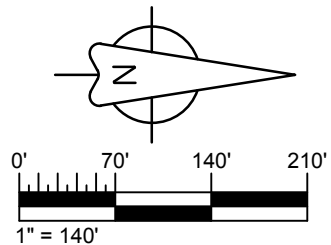
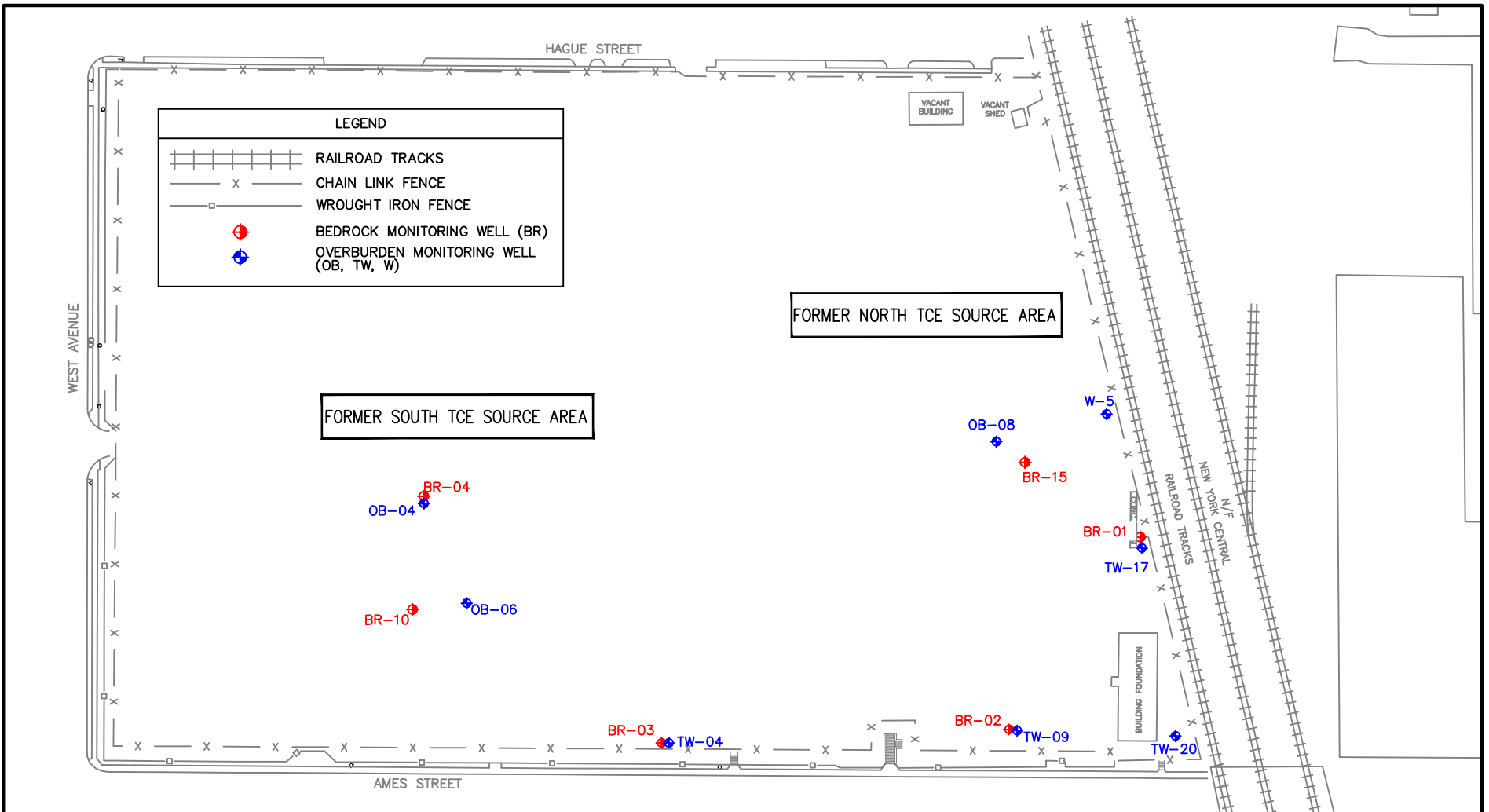
- Groundwater monitoring events will continue to be conducted semi-annually for the six bedrock wells and annually for the eight overburden wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260C. Additionally, as detailed in the revised *OM&M Manual* (MACTEC, 2011), the groundwater samples will be analyzed for the full suite of 8260C constituents every five years (next event in 2020) 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.

5.0 REFERENCES

- Amec Foster Wheeler, 2017. *2016 Annual Progress report and Remedial Progress Evaluation, Former Taylor Instruments Site, Rochester New York*. March 7.
- MACTEC, 2010. *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remedial Treatment System, Former Taylor Instruments Site, Rochester, New York*. June 11.
- 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, 2017. *Site Management (SM) Periodic Review Report (PRR) Response Letter, Former Taylor Instruments Facility, Rochester, Monroe County, Site No. V00144*. March 30.
- NYSDEC, 2019. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal*. Prepared by the New York State Department of Environmental Conservation. Submitted to Mr. Joe Verdi with Gray Rock Rochester, LLC. January 3.
- Wood, 2019. Email from Mr. Joe Deatherage with Wood Environment & Infrastructure Solutions, Inc. to Mr. Frank Sowers with the New York State Department of Environmental Conservation. December 7.

APPENDIX A

FIGURES



wood.

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2030 FALLING WATERS ROAD, SUITE 300
KNOXVILLE, TN. 37922
TEL: (865) 671-6774

CLIENT:

ABB

TITLE:

WELL LOCATIONS
ANNUAL REPORT 2018
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

DRAW:

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REVIEW:

R. RYAN

SCALE:

AS SHOWN

CHECK::

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DATE:

01-24-2019

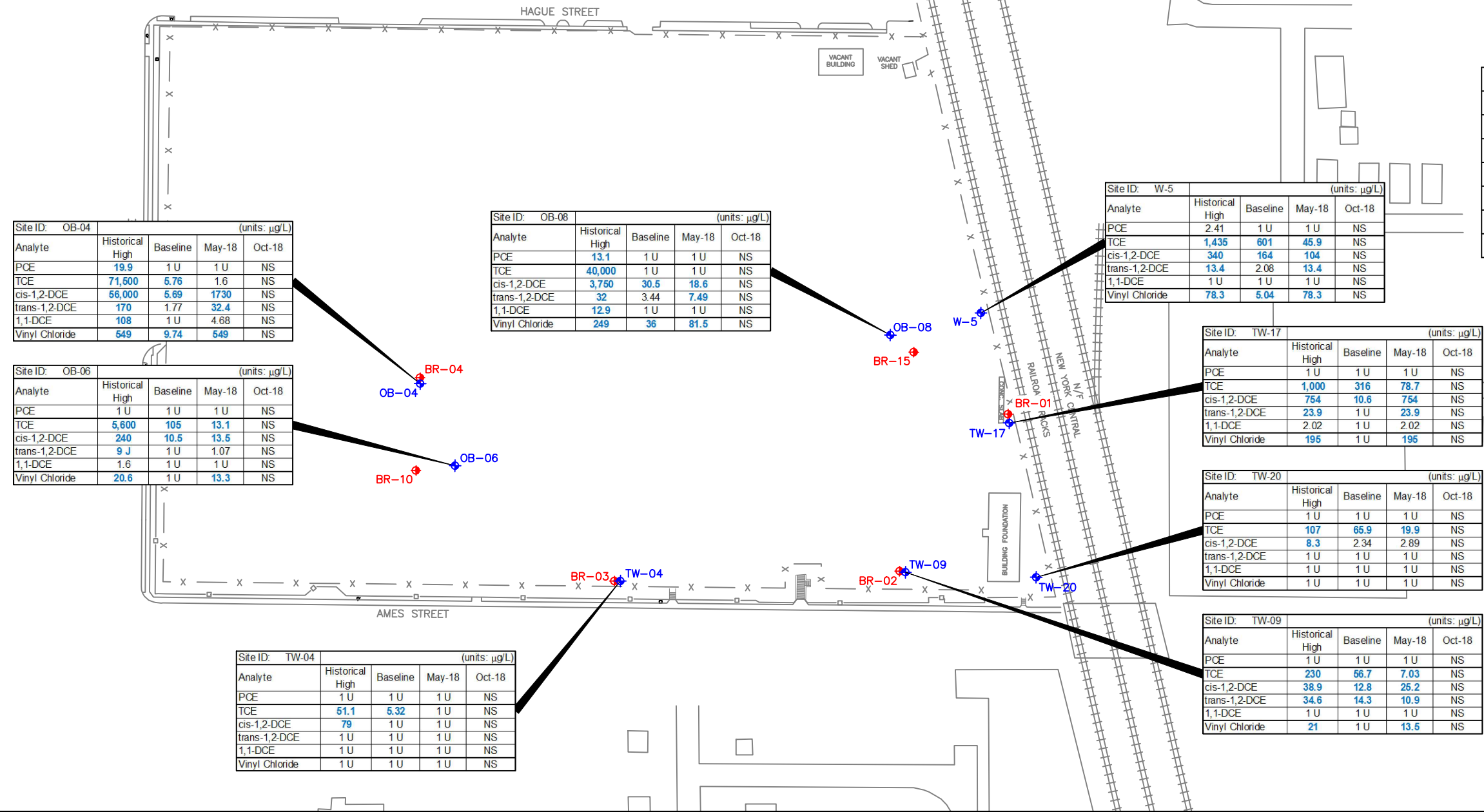
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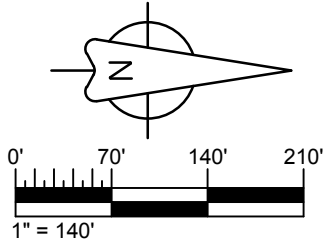
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VOCs OB MW 2018.dwg



NOTES:

- HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.
- BASLINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.



wood.

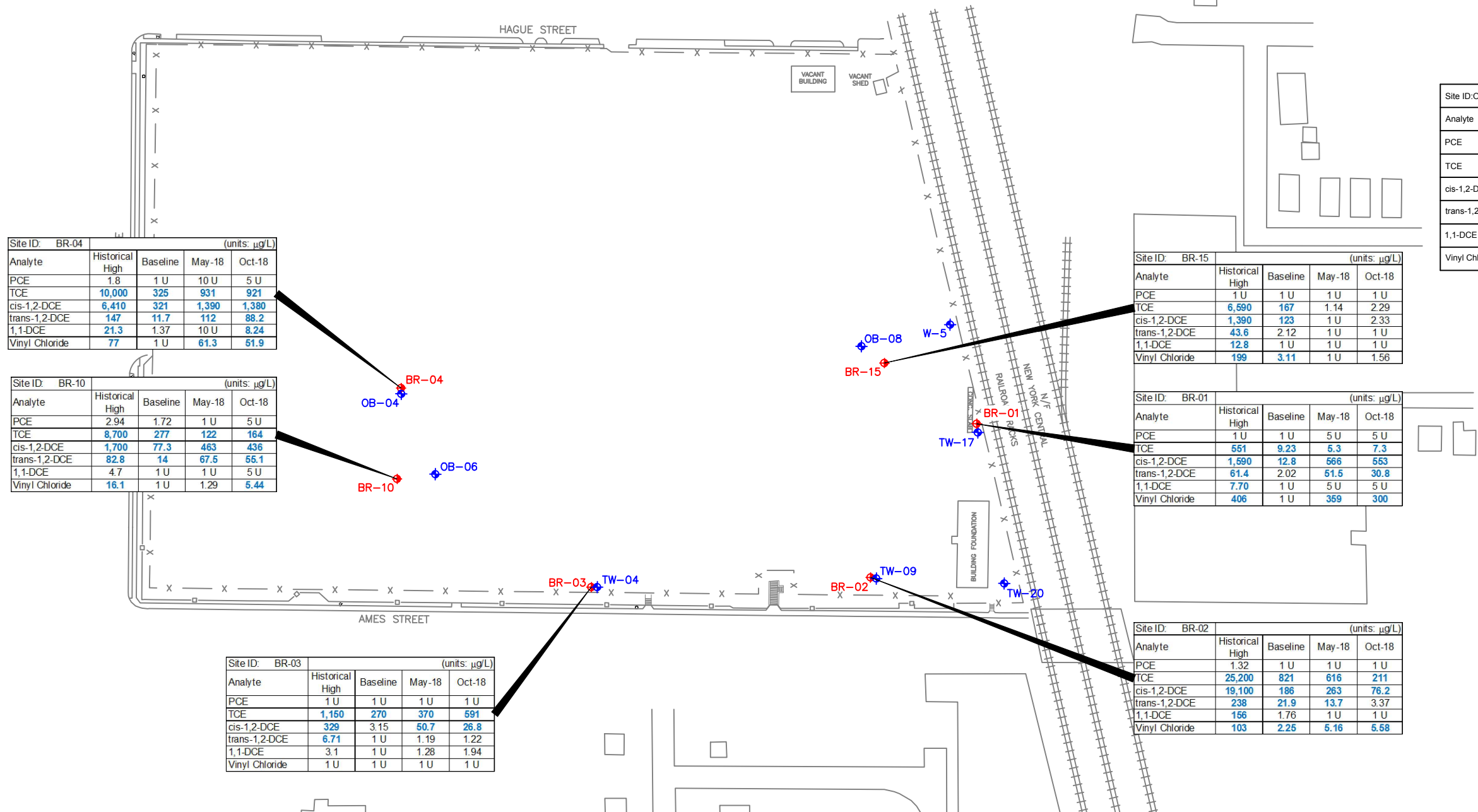
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2030 FALLING WATERS ROAD, SUITE 300
KNOXVILLE, TN. 37922
TEL: (865) 671-6774

TITLE: **VOCs IN OVERBURDEN MONITORING WELLS**
ANNUAL REPORT 2018
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

CLIENT: **ABB**

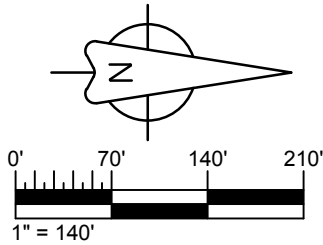
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VOCs BR MW 2018.dwg



NOTES:

1. HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.
2. BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.



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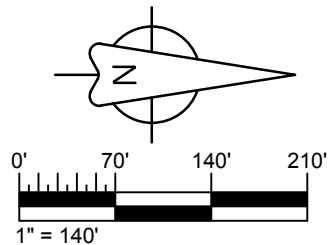
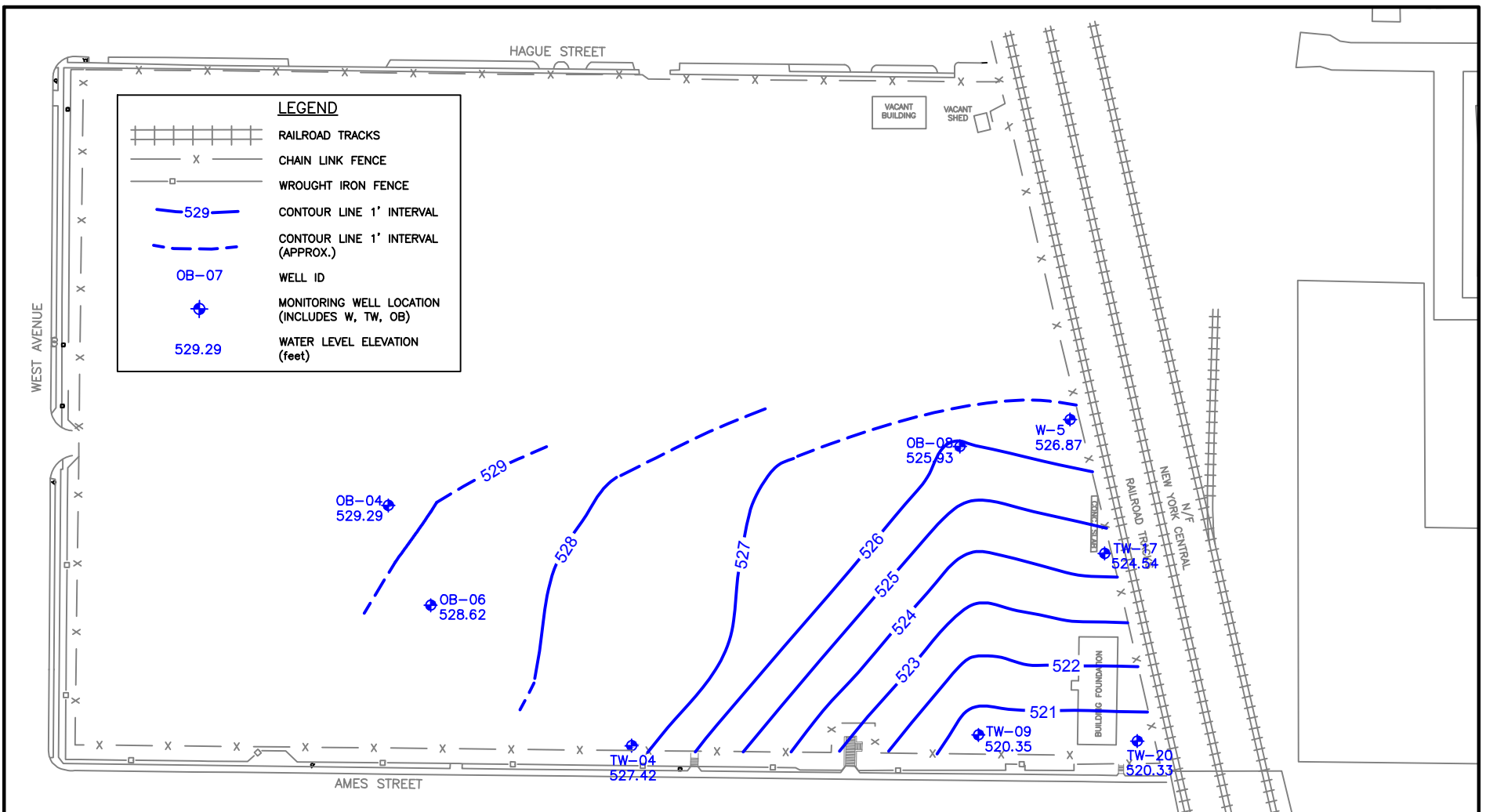
2030 FALLING WATERS ROAD, SUITE 300
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TITLE: **VOCs IN BEDROCK MONITORING WELLS**
ANNUAL REPORT 2018
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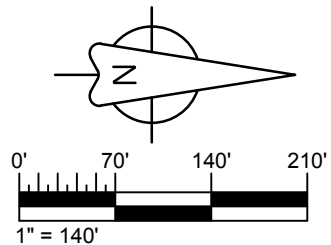
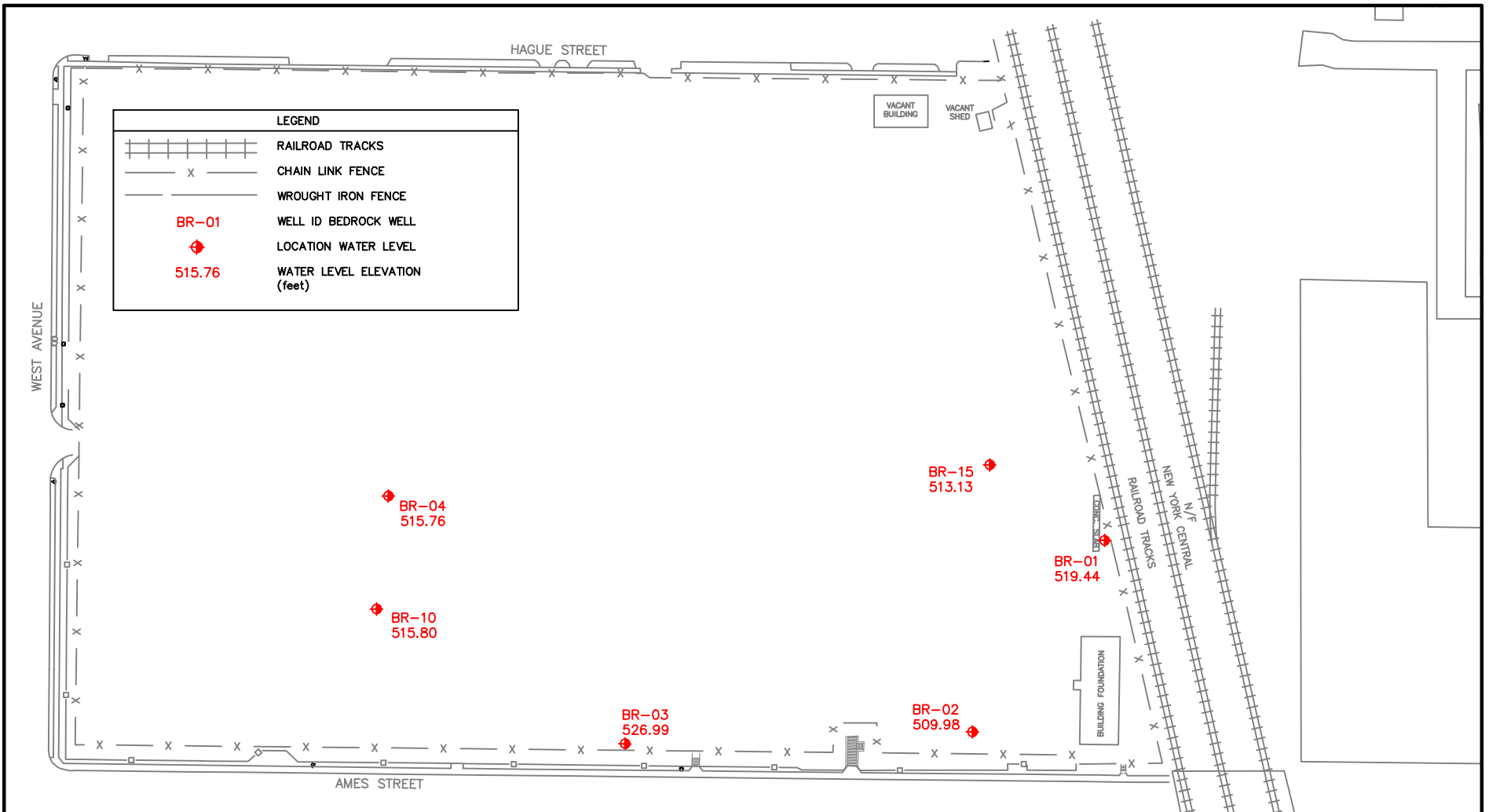
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TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP
 MAY 2018 SAMPLING EVENT
 ANNUAL REPORT 2018
 FORMER TAYLOR INSTRUMENTS SITE
 ROCHESTER, NEW YORK

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BEDROCK GROUNDWATER ELEVATIONS
MAY 2018 SAMPLING EVENT
ANNUAL REPORT 2018
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

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SCALE:

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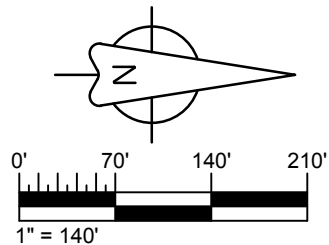
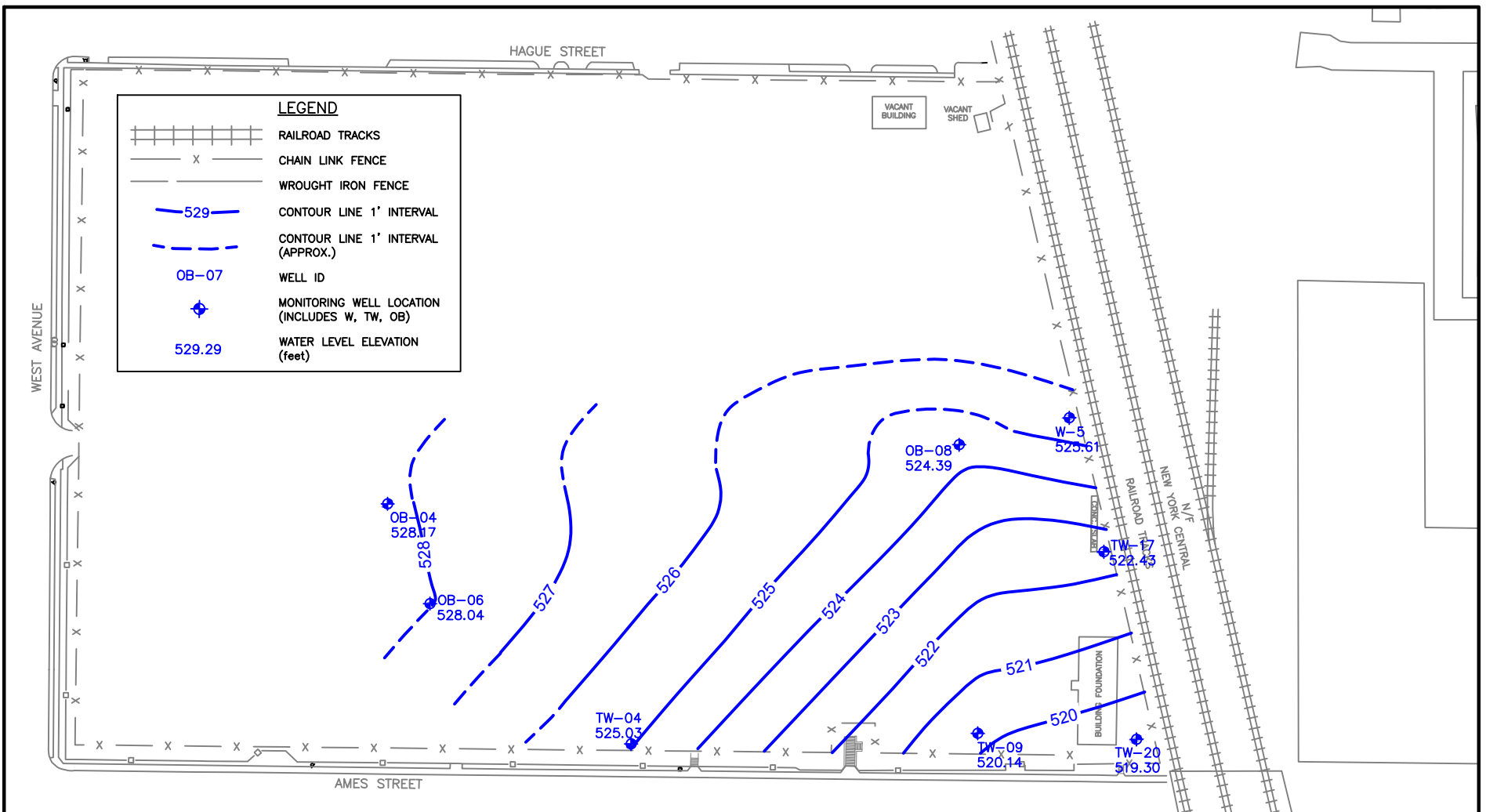
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wood.

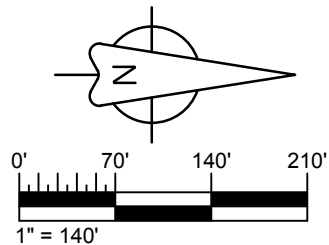
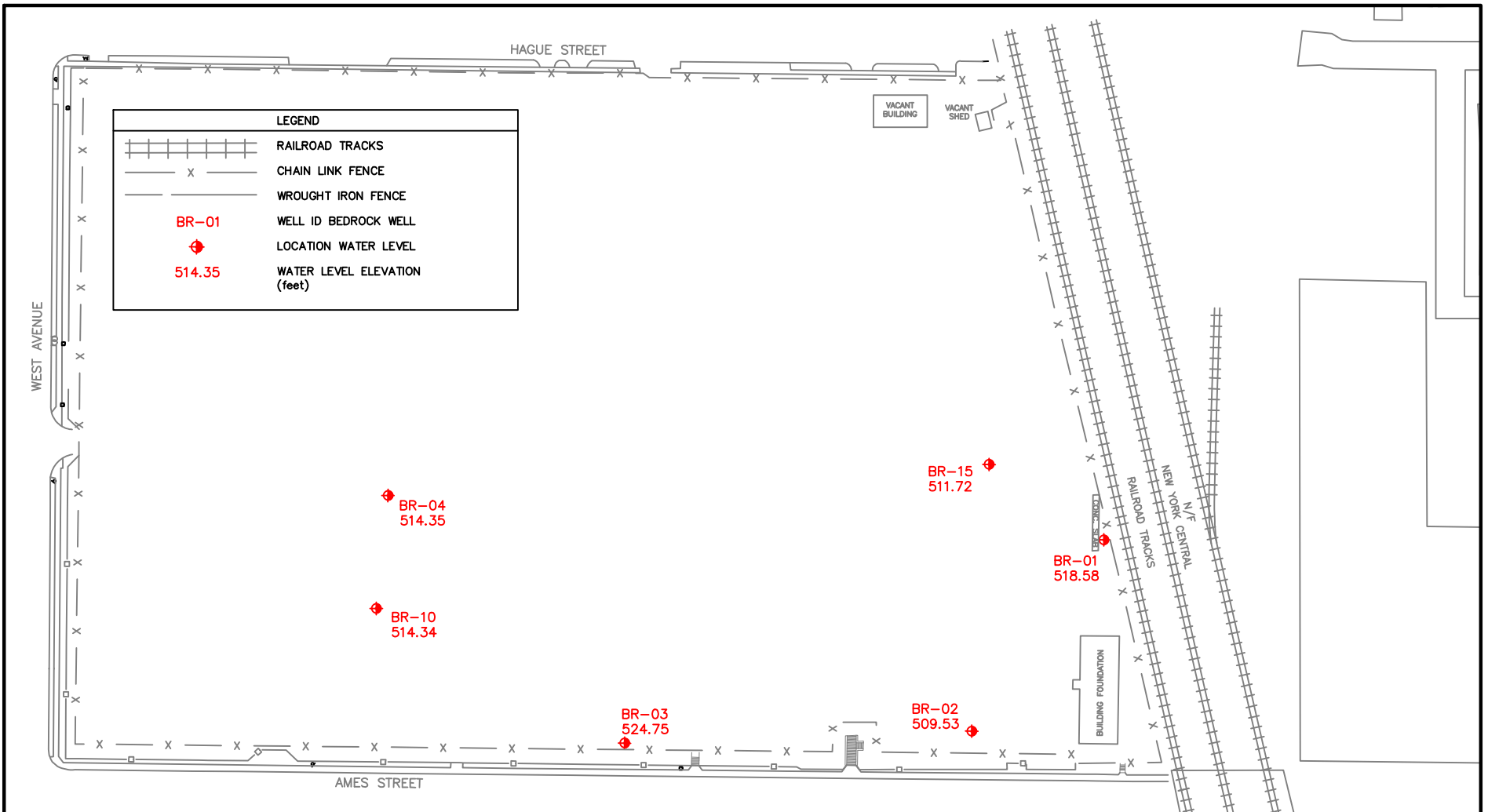
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 TEL: (865) 671-6774

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TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP
 OCTOBER 2018 SAMPLING EVENT
 ANNUAL REPORT 2018
 FORMER TAYLOR INSTRUMENTS SITE
 ROCHESTER, NEW YORK

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wood.

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 2030 FALLING WATERS ROAD, SUITE 300
 KNOXVILLE, TN. 37922
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TITLE:

**BEDROCK GROUNDWATER ELEVATIONS
 OCTOBER 2018 SAMPLING EVENT
 ANNUAL REPORT 2018
 FORMER TAYLOR INSTRUMENTS SITE
 ROCHESTER, NEW YORK**

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REVIEW:

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SCALE:

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JD

DATE:

01-24-2019

FIGURE:

7

PROJ. NO.:

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APPENDIX B

TABLES

Table 1
Overburden Monitoring Wells with COCs Exceeding NYSDEC Class GA Standards
May 2018

2018 Annual Progress Report
Former Taylor Instruments Site
Rochester, New York

COC	NYSDEC Class GA Standard	Monitoring Well						
		OB-04	OB-06	OB-08	TW-09	TW-17	TW-20	W-5
TCE	5	1.60	13.1	1 U	7.03	78.7	19.9	45.9
cis-1,2-DCE	5	1730	13.5	18.6	25.2	754	2.89	104
trans-1,2-DCE	5	32.4	1.07	7.49	10.9	23.9	1 U	13.4
Vinyl Chloride	2	549	13.3	81.5	13.5	195	1 U	78.3

All concentrations are in micrograms per liter.

Created by: NG on 06/21/2018

Overburden monitoring well TW-04 has no exceedances of NYSDEC Class GA Standards.

Checked by: KJD on 12/14/2018

Notes: **Bold and shaded** values indicate detection exceeding NYSDEC 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 NYSDEC Class GA Standards
October 2018

2018 Annual Progress Report
Former Taylor Instruments Site
Rochester, New York

COC	NYSDEC Class GA Standard	Monitoring Well				
		BR-01	BR-02	BR-03	BR-04	BR-10
TCE	5	7.30	211	591	921	164
cis-1,2-DCE	5	553	76.2	26.8	1380	436
trans-1,2-DCE	5	30.8	3.37	1.22	88.2	55.1
1,1-DCE	5	5 U	1 U	1.94	8.24	5 U
Vinyl Chloride	2	300	5.58	1 U	51.9	5.44

All concentrations are in micrograms per liter.

Created by: NG on 12/12/2018

Bedrock monitoring well BR-15 has no exceedances of NYSDEC Class GA Standards

Checked by: KJD on 12/14/2018

Notes: **Bold and shaded** values indicate detection exceeding NYSDEC 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
2000-2018 Sampling Events

2018 Annual Progress Report
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	09/13/01	--	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-04	05/07/14	--	1.46	--	--	--	1.21
OB-04	10/28/14	--	--	--	--	--	4.25
OB-04	05/12/15	--	1.82	--	--	--	3.7
OB-04	10/27/15	--	2.36	--	--	--	7.3
OB-04	05/03/16	--	1.84	--	--	--	8.03
OB-04	10/25/16	--	1.97	2.52	1.18	--	17.6
OB-04	05/09/17	--	2.63	225	3.57	--	72.0
OB-04	05/08/18	--	1.60	1,730	32.4	4.68	549
OB-06	11/17/00	--	2,600	60	--	--	--
OB-06 (DUP)	11/17/00	--	3,300	80 J	--	--	--
OB-06	03/21/01	--	540	--	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
2000-2018 Sampling Events

2018 Annual Progress Report
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	06/15/01	--	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	--	--	--
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-06	05/07/14	--	36.5	6.80	--	--	2.51
OB-06	10/28/14	--	38.9	7.64	1.05	--	5.20
OB-06	05/12/15	--	22.9	5.14	--	--	3.26
OB-06	10/27/15	--	38.8	9.68	1.09	--	7.63
OB-06	05/03/16	--	40.4	10.6	1.30	1.60	8.50
OB-06	10/26/16	--	50.8	19.3	1.70	1.57	20.6
OB-06	05/10/17	--	3.26	2.93	--	--	6.84
OB-06	05/08/18	--	13.1	13.5	1.07	--	13.3
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	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
2000-2018 Sampling Events

2018 Annual Progress Report
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)
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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
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	--	--
OB-08	05/07/14	--	--	--	3.50	--	3.03
OB-08	10/28/14	--	--	--	9.57	--	--
OB-08	05/12/15	--	--	--	6.05	--	8.66
OB-08	10/27/15	--	--	--	5.47	--	--
OB-08	05/03/16	--	--	10.7	13.4	--	67.5
OB-08	10/26/16	--	--	--	3.72	--	3.29
OB-08	05/09/17	--	--	6.00	3.99	--	29.2
OB-08	05/08/18	--	--	18.6	7.49	--	81.5
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
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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-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	--	--	--
TW-04	05/07/14	--	--	2.08	--	--	--
TW-04	10/28/14	--	--	8.24	--	--	--
TW-04	05/12/15	--	--	1.84	--	--	--
TW-04	10/27/15	--	--	5.18	--	--	--
TW-04	05/03/16	--	--	--	--	--	--
TW-04	10/25/16	--	--	2.67	--	--	--
TW-04	05/09/17	--	--	--	--	--	--
TW-04	05/08/18	--	--	--	--	--	--
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
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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	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-09	05/07/14	--	6.06	4.15	3.47	--	2.09
TW-09	10/29/14	--	2.98	12.5	9.86	--	12.9
TW-09	05/13/15	--	16.4	18.7	11.8	--	9.81
TW-09	10/28/15	--	8.18	38.9	20.8	--	21
TW-09	05/04/16	--	10.8	16.8	6.85	--	6.90
TW-09	10/26/16	--	5.31	3.20	1.07	--	--
TW-09	05/10/17	--	2.49	--	--	--	--
TW-09	05/08/18	--	7.03	25.2	10.9	--	13.5
TW-17	11/17/00	--	1,000	7.9J	--	--	--
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	--	--	--	--
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
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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-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-17	05/08/14	--	1.38	112	4.21	--	48.0
TW-17	10/29/14	--	--	1.51	--	--	4.80
TW-17	05/13/15	--	--	2.74	--	--	2.1
TW-17	10/29/15	--	1.83	6.59	--	--	3
TW-17	05/03/16	--	13.5	170	2.95	--	84.4
TW-17	10/26/16	--	1.07	24.2	--	--	4.26
TW-17	05/10/17	--	35.4	192	4.33	--	84.5
TW-17	05/09/18	--	78.7	754	23.9	2.02	195
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-04	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	--	--	--
TW-20	05/04/09	--	25.2	1.55	--	--	--
TW-20	10/19/09	--	78.8	5.50	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the
2000-2018 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	05/11/10	--	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	--	--	--
TW-20	05/08/14	--	48.4	4.48	--	--	--
TW-20	10/29/14	--	6.11	--	--	--	--
TW-20	05/13/15	--	30.2	2.25	--	--	--
TW-20	10/28/15	--	27.3	--	--	--	--
TW-20	05/04/16	--	26.3	--	--	--	--
TW-20	10/26/16	--	18.6	--	--	--	--
TW-20	05/10/17	--	19.2	1.99	--	--	--
TW-20	05/08/18	--	19.9	2.89	--	--	--
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)
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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
W-5	05/08/14	--	182	49.7	7.35	--	14.9
DUP-01	05/08/14	--	177	52.1	7.71	--	15.3
W-5	10/29/14	--	141	57.9	10.9	--	39.7
DUP-01	10/29/14	--	155	55.6	10.3	--	33.9
W-5	05/13/15	--	106	40.5	6.15	--	26.1
DUP-01	05/13/15	--	109	42.5	6.11	--	27.0
W-5	10/28/15	--	116	51.5	8.51	--	34.7
DUP-01	10/28/15	--	122	50.6	8.01	--	31.5
W-5	05/04/16	--	85.6	41.6	7.24	--	26.9
DUP-01	05/04/16	--	85.6	42.9	7.55	--	27.4
W-5	10/26/16	--	104	56.9	8.27	--	27.3
DUP-01	10/26/16	--	109	61.6	9.60	--	27.8
W-5	05/10/17	--	78.5	122	11.7	--	74.2
DUP-01	05/10/17	--	87.4	112	9.03	--	59.0

See notes at end of table

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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	05/09/18	--	45.9	104	13.4	--	78.3
DUP-01	05/09/18	--	44.3	104	13.1	--	80.6

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
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Prepared by NG on 12/12/2018

Checked by KJD on 12/14/18

Table 4
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 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-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-01	05/08/14	--	98.9	1,570	61.4	7.70	377
BR-01	10/29/14	--	86.9	1,590	56.6	7.62	320
BR-01	05/14/15	--	40.4	1,240	37.1	--	244
BR-01	10/29/15	--	31.8	906	39.8	4.03	244
BR-01	05/05/16	--	13.0	861	36.8	--	302
BR-01	10/27/16	--	10.9	787	30.0	2.50	158
BR-01	05/11/17	--	7.23	851	38.9	--	348
BR-01	11/01/17	--	6.08	772	47.6	--	345
BR-01	05/10/18	--	5.30	566	51.5	--	359
BR-01	10/24/18	--	7.30	553	30.8	--	300

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 Sampling Events

2018 Annual Progress Report
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-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
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-02	05/08/14	--	25,200	5,860	238	46.4	103
BR-02	10/29/14	--	25.3	19.7	2.52	--	--
BR-02	05/14/15	--	506	167	7.23	--	3.41
BR-02	10/29/15	--	16.6	21.7	1.54	--	--
BR-02	05/05/16	--	196	335	15.3	2.59	12.6
BR-02	10/27/16	--	14.9	30.3	1.65	--	--
BR-02	05/11/17	--	89.7	77.1	3.33	--	3.45
BR-02	10/31/17	--	16.6	18.6	1.73	--	1.47
BR-02	05/09/18	--	616	263	13.7	--	5.16
BR-02	10/24/18	--	211	76.2	3.37	--	5.58
BR-03	11/18/00	--	440	99	1.2 J	2.2 J	--
BR-03	03/22/01	--	810	12 J	--	3.2 J	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 Sampling Events

2018 Annual Progress Report
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	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	--
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-03	05/08/14	--	519	15.3	1.66	1.72	--
BR-03	10/29/14	--	381	37.0	1.73	1.74	--
BR-03	05/14/15	--	353	40.6	1.12	1.40	--
BR-03	10/29/15	--	360	76.4	1.77	1.86	--
BR-03	05/04/16	--	225	79.1	1.19	1.58	--
BR-03	10/27/16	--	464	27.1	1.32	2.17	--
BR-03	05/10/17	--	352	97.4	3.57	2.05	--
BR-03	11/01/17	--	483	49.5	2.48	1.09	--
BR-03	05/09/18	--	370	50.7	1.19	1.28	--
BR-03	10/24/18	--	591	26.8	1.22	1.94	--
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	--	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 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	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	--	--	--
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-04	05/07/14	--	757	1,370	88.7	11.5	68.0
BR-04	10/29/14	--	514	955	77.4	9.33	55.1
BR-04	05/14/15	--	437	977	61.6	7.27	52.7
BR-04	10/29/15	--	331	661	64.9	7.78	46.2
BR-04	05/05/16	--	354	831	51.0	6.63	48.5
BR-04	10/27/16	--	441	972	81.9	9.15	62.0
BR-04	05/11/17	--	703	1,450	63.8	--	60.0
BR-04	11/01/17	--	933	1,490	104	--	59.6
BR-04	05/10/18	--	931	1,390	112	--	61.3
BR-04	10/24/18	--	921	1,380	88.2	8.24	51.9
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

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 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-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-10	05/07/14	--	329	189	32.8	--	1.02
BR-10	10/29/14	1.33	345	299	46.2	1.49	2.72
BR-10	05/14/15	--	142	260	38.5	--	--
BR-10	10/29/15	--	201	343	56.5	1.61	3.04
BR-10	05/05/16	--	233	257	43.3	--	--
BR-10	10/27/16	1.19	154	345	50.1	1.50	2.11
BR-10	05/11/17	--	151	357	48.4	1.02	1.65
BR-10	11/01/17	--	168	413	56.2	--	3.64
BR-10	05/10/18	--	122	463	67.5	--	1.29
BR-10	10/24/18	--	164	436	55.1	--	5.44
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

See notes at end of table

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the
2000-2018 Sampling Events

2018 Annual Progress Report
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	09/22/02	--	4,390	555	40.3	7.5	5.4
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
BR-15	05/07/14	--	1.64	8.33	2.47	--	41.1
BR-15	10/28/14	--	--	1.28	1.77	--	11.3
BR-15	05/13/15	--	--	1.94	--	--	16.9
BR-15	10/28/15	--	--	--	--	--	2.2
BR-15	05/04/16	--	--	--	--	--	1.42
BR-15	10/25/16	--	--	--	--	--	3.0
BR-15	05/09/17	--	--	--	--	--	--
BR-15	10/31/17	--	2.43	5.22	--	--	4.06
DUP-01	10/31/17	--	2.33	5.70	--	--	5.20
BR-15	05/09/18	--	1.14	--	--	--	--
BR-15	10/23/18	--	2.29	2.33	--	--	1.56
DUP-01	10/23/18	--	2.51	2.54	--	--	1.62

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 NG on 12/12/2018

Checked by KJD on 12/14/2018

APPENDIX C

**LABORATORY REPORTS AND
CHAIN-OF-CUSTODY FORMS
(SEE ENCLOSED CD)**

MAY 2018

**LABORATORY REPORTS AND
CHAIN-OF-CUSTODY FORMS**



Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 30, 2018

Joe Deatherage
Wood Environment & Infrastructure Solutions, Inc
9725 Cogdill Road
Knoxville, TN 37923
USA

RE: **FRM. TAYLOR INSTRUMENTS**

Pace Workorder: 26708

Dear Joe Deatherage:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, May 11, 2018. 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,

Ruth Welsh 05/30/2018
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

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

Total Number of Pages 15

Report ID: 26708 - 1057146

Page 1 of 13



CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,
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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
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
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:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
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, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).



Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID	Sample ID	Matrix	Date Collected	Date Received
267080001	TW-04	Water	5/8/2018 09:55	5/11/2018 10:45
267080002	OB-06	Water	5/8/2018 13:30	5/11/2018 10:45
267080003	W-5	Water	5/9/2018 12:10	5/11/2018 10:45
267080004	TW-17	Water	5/9/2018 13:40	5/11/2018 10:45



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Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

PROJECT SUMMARY

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Workorder Comments

This report is being revised and reissued on 5-30-18 to correct the entry error for the collection date for samples W-5 and TW-17

Batch Comments

Batch: DISG/6843 - RSK175 QC

The relative percent difference between the sample and sample duplicate exceeded laboratory control limits; reference sample 266940001. Analyte Ethane, Ethene. Results for original and duplicate samples were below reporting limits.



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

ANALYTICAL RESULTS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID: **267080001**

Date Received: 5/11/2018 10:45 Matrix: Water

Sample ID: **TW-04**

Date Collected: 5/8/2018 09:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	18	ug/l	0.50	0.031	1	5/17/2018 12:03	AK	
Ethene	0.20 U	ug/l	0.20	0.021	1	5/17/2018 12:03	AK	D1



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ANALYTICAL RESULTS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID: **267080002**

Date Received: 5/11/2018 10:45 Matrix: Water

Sample ID: **OB-06**

Date Collected: 5/8/2018 13:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	16000	ug/l	50	3.1	100	5/18/2018 12:47	AK	d
Ethene	3.8	ug/l	0.20	0.021	1	5/17/2018 12:14	AK	D1



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ANALYTICAL RESULTS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID: **267080003**

Date Received: 5/11/2018 10:45 Matrix: Water

Sample ID: **W-5**

Date Collected: 5/9/2018 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	2400	ug/l	50	3.1	100	5/18/2018 12:57	AK	d
Ethene	5.0	ug/l	0.20	0.021	1	5/17/2018 12:55	AK	D1



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ANALYTICAL RESULTS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID: **267080004**

Date Received: 5/11/2018 10:45 Matrix: Water

Sample ID: **TW-17**

Date Collected: 5/9/2018 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	21000	ug/l	50	3.1	100	5/18/2018 13:08	AK	d
Ethene	56	ug/l	0.20	0.021	1	5/18/2018 08:51	AK	



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quantitation 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).
d	The analyte concentration was determined from a dilution.
D1	The duplicate relative percent difference (RPD) exceeded laboratory control limits.



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QUALITY CONTROL DATA

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

QC Batch: DISG/6843 Analysis Method: EPA RSK175
QC Batch Method: EPA RSK175
Associated Lab Samples: 267080001, 267080002, 267080003

METHOD BLANK: 55318

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	
Ethene	ug/l	0.20 U	0.20	D1

LABORATORY CONTROL SAMPLE & LCSD: 55319 55320

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	42	43	96	97	85-115	1.1	20	
Ethene	ug/l	78	76	76	97	98	85-115	0.67	20	D1

SAMPLE DUPLICATE: 55325 Original: 266880001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	9	11	19	20	
Ethene	ug/l	.032	.037	15	20	D1

SAMPLE DUPLICATE: 55326 Original: 266940001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	42	42	1.8	20	
Ethene	ug/l	.0045	.0004	167	20	D1



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QUALITY CONTROL DATA

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

QC Batch: DISG/6845 Analysis Method: EPA RSK175
QC Batch Method: EPA RSK175
Associated Lab Samples: 267080002, 267080003, 267080004

METHOD BLANK: 55346

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	
Ethene	ug/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE & LCSD: 55347 55348

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	43	43	96	97	85-115	0.63	20	
Ethene	ug/l	78	77	77	99	99	85-115	0.066	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 55349 55350 Original: 267590001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.24	44	52	55	117	124	70-130	5.9	20	d
Ethene	ug/l	0	78	92	99	118	128	70-130	7.7	20	d

SAMPLE DUPLICATE: 55351 Original: 266950001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	3700	3700	0.58	20	d



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

QUALITY CONTROL PARAMETER QUALIFIERS

- D1 The duplicate relative percent difference (RPD) exceeded laboratory control limits.
- d The analyte concentration was determined from a dilution.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 26708 FRM. TAYLOR INSTRUMENTS

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
267080001	TW-04			EPA RSK175	DISG/6843
267080002	OB-06			EPA RSK175	DISG/6843
267080003	W-5			EPA RSK175	DISG/6843
267080002	OB-06			EPA RSK175	DISG/6845
267080003	W-5			EPA RSK175	DISG/6845
267080004	TW-17			EPA RSK175	DISG/6845



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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Required Client Information:

Section B

Required Project Information:

Section C

Section 3
Invoice Information:

Page:

of

011152

Company: Wood E&I Solutions
Address: 2030 Fulling Water Rd.
Knoxville, TN 37972
Email To: Joe.dentherm@woodpic.com
Phone: 865-218-1044 Fax:
Requested Due Date/TAT: STANDARD

Report To:	Joe Deatherage
Copy To:	
Purchase Order No.:	
Project Name:	Former Taylor Instruments
Project Number:	3031157-028.13

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER

Site Location	Rochester
STATE:	ny

[illegible]

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

Temp in °C

Received on
100 (Y/N)

Custody	
Sealed Cooler	
(V/N)	

Samples Intact
(Y/N)

Cooler Receipt Form

Client Name: _____ Project: _____ Lab Work Order: _____

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Other: _____ Air bill Present: Yes No

Tracking Number: _____

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: _____ Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments: _____

Cooler contents examined/received by : _____ Date: _____

Project Manager Review : _____ Date: _____

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: 490-151752-1

Client Project/Site: Former Taylor Instruments

For:

Wood E&I Solutions Inc

2030 Falling Waters Road

Ste 300

Knoxville, Tennessee 37922

Attn: Mr. Joe Deatherage



Authorized for release by:

5/23/2018 1:36:49 PM

Shali Brown, Project Manager II

(615)301-5031

shali.brown@testamericainc.com

LINKS

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results through

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Sample Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-151752-1	TW-04	Water	05/08/18 09:55	05/11/18 10:00
490-151752-2	TW-09	Water	05/08/18 11:00	05/11/18 10:00
490-151752-3	TW-17	Water	05/09/18 13:40	05/11/18 10:00
490-151752-4	TW-20	Water	05/08/18 12:00	05/11/18 10:00
490-151752-5	OB-04	Water	05/08/18 15:35	05/11/18 10:00
490-151752-6	OB-06	Water	05/08/18 13:30	05/11/18 10:00
490-151752-7	OB-08	Water	05/08/18 17:35	05/11/18 10:00
490-151752-8	W-5	Water	05/09/18 12:10	05/11/18 10:00
490-151752-9	BR-01	Water	05/10/18 12:35	05/11/18 10:00
490-151752-10	BR-02	Water	05/09/18 15:20	05/11/18 10:00
490-151752-11	BR-03	Water	05/09/18 17:25	05/11/18 10:00
490-151752-12	BR-04	Water	05/10/18 11:18	05/11/18 10:00
490-151752-13	BR-10	Water	05/10/18 09:55	05/11/18 10:00
490-151752-14	BR-15	Water	05/09/18 10:35	05/11/18 10:00
490-151752-15	Dup-01	Water	05/09/18 01:01	05/11/18 10:00
490-151752-16	QAFB-01	Water	05/10/18 13:20	05/11/18 10:00
490-151752-17	QARB-01	Water	05/10/18 13:25	05/11/18 10:00
490-151752-18	QATB-01	Water	05/10/18 13:30	05/11/18 10:00

Case Narrative

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Job ID: 490-151752-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-151752-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2018 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

GC/MS VOA

Method(s) 8260C: The following samples were diluted due to the nature of the sample matrix: BR-01 (490-151752-9) and BR-04 (490-151752-12). Elevated reporting limits (RLs) are provided.

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

VOA Prep

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

Definitions/Glossary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

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.

Glossary

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

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: TW-04

Date Collected: 05/08/18 09:55

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-1

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			05/15/18 04:04	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 04:04	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 04:04	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 04:04	1
Trichloroethene	ND		1.00		ug/L			05/15/18 04:04	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130		05/15/18 04:04	1
4-Bromofluorobenzene (Surr)	99		70 - 130		05/15/18 04:04	1
Dibromofluoromethane (Surr)	109		70 - 130		05/15/18 04:04	1
Toluene-d8 (Surr)	106		70 - 130		05/15/18 04:04	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: TW-09

Date Collected: 05/08/18 11:00

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-2

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			05/15/18 04:31	1
cis-1,2-Dichloroethene	25.2		1.00		ug/L			05/15/18 04:31	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 04:31	1
trans-1,2-Dichloroethene	10.9		1.00		ug/L			05/15/18 04:31	1
Trichloroethene	7.03		1.00		ug/L			05/15/18 04:31	1
Vinyl chloride	13.5		1.00		ug/L			05/15/18 04:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130					05/15/18 04:31	1
4-Bromofluorobenzene (Surr)	96		70 - 130					05/15/18 04:31	1
Dibromofluoromethane (Surr)	107		70 - 130					05/15/18 04:31	1
Toluene-d8 (Surr)	107		70 - 130					05/15/18 04:31	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: TW-17

Date Collected: 05/09/18 13:40

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2.02		1.00		ug/L			05/15/18 07:14	1
cis-1,2-Dichloroethene	754		5.00		ug/L			05/16/18 04:38	5
Tetrachloroethene	ND		1.00		ug/L			05/15/18 07:14	1
trans-1,2-Dichloroethene	23.9		1.00		ug/L			05/15/18 07:14	1
Trichloroethene	78.7		1.00		ug/L			05/15/18 07:14	1
Vinyl chloride	195		1.00		ug/L			05/15/18 07:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130		05/15/18 07:14	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		05/16/18 04:38	5
4-Bromofluorobenzene (Surr)	99		70 - 130		05/15/18 07:14	1
4-Bromofluorobenzene (Surr)	94		70 - 130		05/16/18 04:38	5
Dibromofluoromethane (Surr)	110		70 - 130		05/15/18 07:14	1
Dibromofluoromethane (Surr)	111		70 - 130		05/16/18 04:38	5
Toluene-d8 (Surr)	106		70 - 130		05/15/18 07:14	1
Toluene-d8 (Surr)	87		70 - 130		05/16/18 04:38	5

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: TW-20

Date Collected: 05/08/18 12:00

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-4

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			05/15/18 06:47	1
cis-1,2-Dichloroethene	2.89		1.00		ug/L			05/15/18 06:47	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 06:47	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 06:47	1
Trichloroethene	19.9		1.00		ug/L			05/15/18 06:47	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 06:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		70 - 130		05/15/18 06:47	1
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 06:47	1
Dibromofluoromethane (Surr)	110		70 - 130		05/15/18 06:47	1
Toluene-d8 (Surr)	107		70 - 130		05/15/18 06:47	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: OB-04

Date Collected: 05/08/18 15:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	4.68		1.00		ug/L			05/15/18 07:41	1
cis-1,2-Dichloroethene	1730		10.0		ug/L			05/16/18 05:04	10
Tetrachloroethene	ND		1.00		ug/L			05/15/18 07:41	1
trans-1,2-Dichloroethene	32.4		1.00		ug/L			05/15/18 07:41	1
Trichloroethene	1.60		1.00		ug/L			05/15/18 07:41	1
Vinyl chloride	549		10.0		ug/L			05/16/18 05:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127		70 - 130		05/15/18 07:41	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		05/16/18 05:04	10
4-Bromofluorobenzene (Surr)	105		70 - 130		05/15/18 07:41	1
4-Bromofluorobenzene (Surr)	93		70 - 130		05/16/18 05:04	10
Dibromofluoromethane (Surr)	110		70 - 130		05/15/18 07:41	1
Dibromofluoromethane (Surr)	110		70 - 130		05/16/18 05:04	10
Toluene-d8 (Surr)	108		70 - 130		05/15/18 07:41	1
Toluene-d8 (Surr)	87		70 - 130		05/16/18 05:04	10

TestAmerica Nashville

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: OB-06

Date Collected: 05/08/18 13:30

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-6

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			05/15/18 04:58	1
cis-1,2-Dichloroethene	13.5		1.00		ug/L			05/15/18 04:58	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 04:58	1
trans-1,2-Dichloroethene	1.07		1.00		ug/L			05/15/18 04:58	1
Trichloroethene	13.1		1.00		ug/L			05/15/18 04:58	1
Vinyl chloride	13.3		1.00		ug/L			05/15/18 04:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					05/15/18 04:58	1
4-Bromofluorobenzene (Surr)	99		70 - 130					05/15/18 04:58	1
Dibromofluoromethane (Surr)	102		70 - 130					05/15/18 04:58	1
Toluene-d8 (Surr)	109		70 - 130					05/15/18 04:58	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: OB-08

Date Collected: 05/08/18 17:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-7

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			05/15/18 05:26	1
cis-1,2-Dichloroethene	18.6		1.00		ug/L			05/15/18 05:26	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 05:26	1
trans-1,2-Dichloroethene	7.49		1.00		ug/L			05/15/18 05:26	1
Trichloroethene	ND		1.00		ug/L			05/15/18 05:26	1
Vinyl chloride	81.5		1.00		ug/L			05/15/18 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130					05/15/18 05:26	1
4-Bromofluorobenzene (Surr)	97		70 - 130					05/15/18 05:26	1
Dibromofluoromethane (Surr)	109		70 - 130					05/15/18 05:26	1
Toluene-d8 (Surr)	108		70 - 130					05/15/18 05:26	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: W-5

Date Collected: 05/09/18 12:10

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-8

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			05/15/18 08:08	1
cis-1,2-Dichloroethene	104		1.00		ug/L			05/15/18 08:08	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 08:08	1
trans-1,2-Dichloroethene	13.4		1.00		ug/L			05/15/18 08:08	1
Trichloroethene	45.9		1.00		ug/L			05/15/18 08:08	1
Vinyl chloride	78.3		1.00		ug/L			05/15/18 08:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130		05/15/18 08:08	1
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 08:08	1
Dibromofluoromethane (Surr)	106		70 - 130		05/15/18 08:08	1
Toluene-d8 (Surr)	109		70 - 130		05/15/18 08:08	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-01
Date Collected: 05/10/18 12:35
Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		5.00		ug/L			05/15/18 09:29	5
cis-1,2-Dichloroethene	566		5.00		ug/L			05/15/18 09:29	5
Tetrachloroethene	ND		5.00		ug/L			05/15/18 09:29	5
trans-1,2-Dichloroethene	51.5		5.00		ug/L			05/15/18 09:29	5
Trichloroethene	5.30		5.00		ug/L			05/15/18 09:29	5
Vinyl chloride	359		5.00		ug/L			05/15/18 09:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		70 - 130					05/15/18 09:29	5
4-Bromofluorobenzene (Surr)	98		70 - 130					05/15/18 09:29	5
Dibromofluoromethane (Surr)	106		70 - 130					05/15/18 09:29	5
Toluene-d8 (Surr)	109		70 - 130					05/15/18 09:29	5

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-02

Date Collected: 05/09/18 15:20

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/15/18 05:53	1
cis-1,2-Dichloroethene	263		5.00		ug/L			05/16/18 04:13	5
Tetrachloroethene	ND		1.00		ug/L			05/15/18 05:53	1
trans-1,2-Dichloroethene	13.7		1.00		ug/L			05/15/18 05:53	1
Trichloroethene	616		5.00		ug/L			05/16/18 04:13	5
Vinyl chloride	5.16		1.00		ug/L			05/15/18 05:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130		05/15/18 05:53	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		05/16/18 04:13	5
4-Bromofluorobenzene (Surr)	100		70 - 130		05/15/18 05:53	1
4-Bromofluorobenzene (Surr)	95		70 - 130		05/16/18 04:13	5
Dibromofluoromethane (Surr)	108		70 - 130		05/15/18 05:53	1
Dibromofluoromethane (Surr)	109		70 - 130		05/16/18 04:13	5
Toluene-d8 (Surr)	105		70 - 130		05/15/18 05:53	1
Toluene-d8 (Surr)	88		70 - 130		05/16/18 04:13	5

TestAmerica Nashville

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-03

Date Collected: 05/09/18 17:25

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.28		1.00		ug/L			05/15/18 08:35	1
cis-1,2-Dichloroethene	50.7		1.00		ug/L			05/15/18 08:35	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 08:35	1
trans-1,2-Dichloroethene	1.19		1.00		ug/L			05/15/18 08:35	1
Trichloroethene	370		1.00		ug/L			05/15/18 08:35	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 08:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130		05/15/18 08:35	1
4-Bromofluorobenzene (Surr)	99		70 - 130		05/15/18 08:35	1
Dibromofluoromethane (Surr)	107		70 - 130		05/15/18 08:35	1
Toluene-d8 (Surr)	108		70 - 130		05/15/18 08:35	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-04

Date Collected: 05/10/18 11:18

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-12

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		10.0		ug/L			05/15/18 09:56	10
cis-1,2-Dichloroethene	1390		10.0		ug/L			05/15/18 09:56	10
Tetrachloroethene	ND		10.0		ug/L			05/15/18 09:56	10
trans-1,2-Dichloroethene	112		10.0		ug/L			05/15/18 09:56	10
Trichloroethene	931		10.0		ug/L			05/15/18 09:56	10
Vinyl chloride	61.3		10.0		ug/L			05/15/18 09:56	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		70 - 130		05/15/18 09:56	10
4-Bromofluorobenzene (Surr)	100		70 - 130		05/15/18 09:56	10
Dibromofluoromethane (Surr)	109		70 - 130		05/15/18 09:56	10
Toluene-d8 (Surr)	107		70 - 130		05/15/18 09:56	10

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-10

Date Collected: 05/10/18 09:55

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/15/18 09:02	1
cis-1,2-Dichloroethene	463		5.00		ug/L			05/16/18 03:47	5
Tetrachloroethene	ND		1.00		ug/L			05/15/18 09:02	1
trans-1,2-Dichloroethene	67.5		1.00		ug/L			05/15/18 09:02	1
Trichloroethene	122		1.00		ug/L			05/15/18 09:02	1
Vinyl chloride	1.29		1.00		ug/L			05/15/18 09:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		70 - 130		05/15/18 09:02	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		05/16/18 03:47	5
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 09:02	1
4-Bromofluorobenzene (Surr)	94		70 - 130		05/16/18 03:47	5
Dibromofluoromethane (Surr)	112		70 - 130		05/15/18 09:02	1
Dibromofluoromethane (Surr)	111		70 - 130		05/16/18 03:47	5
Toluene-d8 (Surr)	107		70 - 130		05/15/18 09:02	1
Toluene-d8 (Surr)	88		70 - 130		05/16/18 03:47	5

TestAmerica Nashville

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-15

Date Collected: 05/09/18 10:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-14

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			05/15/18 06:20	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 06:20	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 06:20	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 06:20	1
Trichloroethene	1.14		1.00		ug/L			05/15/18 06:20	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 06:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130		05/15/18 06:20	1
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 06:20	1
Dibromofluoromethane (Surr)	103		70 - 130		05/15/18 06:20	1
Toluene-d8 (Surr)	106		70 - 130		05/15/18 06:20	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: Dup-01

Date Collected: 05/09/18 01:01

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-15

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			05/15/18 10:24	1
cis-1,2-Dichloroethene	104		1.00		ug/L			05/15/18 10:24	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 10:24	1
trans-1,2-Dichloroethene	13.1		1.00		ug/L			05/15/18 10:24	1
Trichloroethene	44.3		1.00		ug/L			05/15/18 10:24	1
Vinyl chloride	80.6		1.00		ug/L			05/15/18 10:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130		05/15/18 10:24	1
4-Bromofluorobenzene (Surr)	99		70 - 130		05/15/18 10:24	1
Dibromofluoromethane (Surr)	107		70 - 130		05/15/18 10:24	1
Toluene-d8 (Surr)	109		70 - 130		05/15/18 10:24	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: QAFB-01

Lab Sample ID: 490-151752-16

Date Collected: 05/10/18 13:20

Matrix: Water

Date Received: 05/11/18 10:00

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			05/15/18 03:10	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 03:10	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 03:10	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 03:10	1
Trichloroethene	ND		1.00		ug/L			05/15/18 03:10	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130		05/15/18 03:10	1
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 03:10	1
Dibromofluoromethane (Surr)	107		70 - 130		05/15/18 03:10	1
Toluene-d8 (Surr)	108		70 - 130		05/15/18 03:10	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: QARB-01

Lab Sample ID: 490-151752-17

Date Collected: 05/10/18 13:25

Matrix: Water

Date Received: 05/11/18 10:00

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			05/15/18 03:37	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 03:37	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 03:37	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 03:37	1
Trichloroethene	ND		1.00		ug/L			05/15/18 03:37	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 03:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130		05/15/18 03:37	1
4-Bromofluorobenzene (Surr)	98		70 - 130		05/15/18 03:37	1
Dibromofluoromethane (Surr)	110		70 - 130		05/15/18 03:37	1
Toluene-d8 (Surr)	106		70 - 130		05/15/18 03:37	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: QATB-01

Lab Sample ID: 490-151752-18

Date Collected: 05/10/18 13:30

Matrix: Water

Date Received: 05/11/18 10:00

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			05/15/18 02:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 02:43	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 02:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 02:43	1
Trichloroethene	ND		1.00		ug/L			05/15/18 02:43	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 02:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123		70 - 130		05/15/18 02:43	1
4-Bromofluorobenzene (Surr)	100		70 - 130		05/15/18 02:43	1
Dibromofluoromethane (Surr)	111		70 - 130		05/15/18 02:43	1
Toluene-d8 (Surr)	105		70 - 130		05/15/18 02:43	1

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

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

Lab Sample ID: MB 490-514817/6

Matrix: Water

Analysis Batch: 514817

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			05/15/18 02:16	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 02:16	1
Tetrachloroethene	ND		1.00		ug/L			05/15/18 02:16	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/15/18 02:16	1
Trichloroethene	ND		1.00		ug/L			05/15/18 02:16	1
Vinyl chloride	ND		1.00		ug/L			05/15/18 02:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		70 - 130		05/15/18 02:16	1
4-Bromofluorobenzene (Surr)	99		70 - 130		05/15/18 02:16	1
Dibromofluoromethane (Surr)	106		70 - 130		05/15/18 02:16	1
Toluene-d8 (Surr)	106		70 - 130		05/15/18 02:16	1

Lab Sample ID: LCS 490-514817/4

Matrix: Water

Analysis Batch: 514817

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	20.0	23.38		ug/L		117	79 - 124
cis-1,2-Dichloroethene	20.0	20.94		ug/L		105	76 - 125
Tetrachloroethene	20.0	19.54		ug/L		98	80 - 126
trans-1,2-Dichloroethene	20.0	23.57		ug/L		118	79 - 126
Trichloroethene	20.0	20.95		ug/L		105	80 - 123
Vinyl chloride	20.0	22.92		ug/L		115	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	114		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 490-151752-14 MS

Matrix: Water

Analysis Batch: 514817

Client Sample ID: BR-15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		20.0	23.16		ug/L		116	54 - 150
cis-1,2-Dichloroethene	ND		20.0	21.33		ug/L		103	68 - 131
Tetrachloroethene	ND		20.0	20.85		ug/L		104	57 - 138
trans-1,2-Dichloroethene	ND		20.0	23.86		ug/L		119	59 - 143
Trichloroethene	1.14		20.0	21.36		ug/L		101	63 - 135
Vinyl chloride	ND		20.0	23.39		ug/L		117	57 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

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

Lab Sample ID: 490-151752-14 MS

Matrix: Water

Analysis Batch: 514817

Client Sample ID: BR-15

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 490-151752-14 MSD

Matrix: Water

Analysis Batch: 514817

Client Sample ID: BR-15

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		20.0	24.61		ug/L		123	54 - 150	6	17
cis-1,2-Dichloroethene	ND		20.0	21.51		ug/L		104	68 - 131	1	17
Tetrachloroethene	ND		20.0	21.27		ug/L		106	57 - 138	2	16
trans-1,2-Dichloroethene	ND		20.0	24.95		ug/L		125	59 - 143	4	16
Trichloroethene	1.14		20.0	22.82		ug/L		108	63 - 135	7	17
Vinyl chloride	ND		20.0	24.16		ug/L		121	57 - 150	3	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: MB 490-515110/6

Matrix: Water

Analysis Batch: 515110

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			05/16/18 01:39	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/16/18 01:39	1
Tetrachloroethene	ND		1.00		ug/L			05/16/18 01:39	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/16/18 01:39	1
Trichloroethene	ND		1.00		ug/L			05/16/18 01:39	1
Vinyl chloride	ND		1.00		ug/L			05/16/18 01:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		05/16/18 01:39	1
4-Bromofluorobenzene (Surr)	94		70 - 130		05/16/18 01:39	1
Dibromofluoromethane (Surr)	111		70 - 130		05/16/18 01:39	1
Toluene-d8 (Surr)	88		70 - 130		05/16/18 01:39	1

Lab Sample ID: LCS 490-515110/4

Matrix: Water

Analysis Batch: 515110

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	20.0	22.83		ug/L		114	79 - 124
cis-1,2-Dichloroethene	20.0	24.23		ug/L		121	76 - 125
Tetrachloroethene	20.0	17.85		ug/L		89	80 - 126
trans-1,2-Dichloroethene	20.0	22.97		ug/L		115	79 - 126

TestAmerica Nashville

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

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

Lab Sample ID: LCS 490-515110/4

Matrix: Water

Analysis Batch: 515110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	23.49		ug/L		117	80 - 123
Vinyl chloride	20.0	22.62		ug/L		113	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
Toluene-d8 (Surr)	86		70 - 130

Lab Sample ID: 490-151824-A-22 MS

Matrix: Water

Analysis Batch: 515110

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		4000	5146		ug/L		126	54 - 150
cis-1,2-Dichloroethene	45800		4000	44960	4	ug/L		-22	68 - 131
Tetrachloroethene	ND		4000	3650		ug/L		91	57 - 138
trans-1,2-Dichloroethene	309		4000	4747		ug/L		111	59 - 143
Trichloroethene	2140		4000	6937		ug/L		120	63 - 135
Vinyl chloride	ND		4000	4803		ug/L		119	57 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130
Toluene-d8 (Surr)	85		70 - 130

Lab Sample ID: 490-151824-A-22 MSD

Matrix: Water

Analysis Batch: 515110

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		4000	5016		ug/L		123	54 - 150	3	17
cis-1,2-Dichloroethene	45800		4000	44500	4	ug/L		-34	68 - 131	1	17
Tetrachloroethene	ND		4000	3703		ug/L		93	57 - 138	1	16
trans-1,2-Dichloroethene	309		4000	4901		ug/L		115	59 - 143	3	16
Trichloroethene	2140		4000	6966		ug/L		121	63 - 135	0	17
Vinyl chloride	ND		4000	4796		ug/L		119	57 - 150	0	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130
Toluene-d8 (Surr)	86		70 - 130

TestAmerica Nashville

QC Association Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

GC/MS VOA

Analysis Batch: 514817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-151752-1	TW-04	Total/NA	Water	8260C	
490-151752-2	TW-09	Total/NA	Water	8260C	
490-151752-3	TW-17	Total/NA	Water	8260C	
490-151752-4	TW-20	Total/NA	Water	8260C	
490-151752-5	OB-04	Total/NA	Water	8260C	
490-151752-6	OB-06	Total/NA	Water	8260C	
490-151752-7	OB-08	Total/NA	Water	8260C	
490-151752-8	W-5	Total/NA	Water	8260C	
490-151752-9	BR-01	Total/NA	Water	8260C	
490-151752-10	BR-02	Total/NA	Water	8260C	
490-151752-11	BR-03	Total/NA	Water	8260C	
490-151752-12	BR-04	Total/NA	Water	8260C	
490-151752-13	BR-10	Total/NA	Water	8260C	
490-151752-14	BR-15	Total/NA	Water	8260C	
490-151752-15	Dup-01	Total/NA	Water	8260C	
490-151752-16	QAFB-01	Total/NA	Water	8260C	
490-151752-17	QARB-01	Total/NA	Water	8260C	
490-151752-18	QATB-01	Total/NA	Water	8260C	
MB 490-514817/6	Method Blank	Total/NA	Water	8260C	
LCS 490-514817/4	Lab Control Sample	Total/NA	Water	8260C	
490-151752-14 MS	BR-15	Total/NA	Water	8260C	
490-151752-14 MSD	BR-15	Total/NA	Water	8260C	

Analysis Batch: 515110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-151752-3	TW-17	Total/NA	Water	8260C	
490-151752-5	OB-04	Total/NA	Water	8260C	
490-151752-10	BR-02	Total/NA	Water	8260C	
490-151752-13	BR-10	Total/NA	Water	8260C	
MB 490-515110/6	Method Blank	Total/NA	Water	8260C	
LCS 490-515110/4	Lab Control Sample	Total/NA	Water	8260C	
490-151824-A-22 MS	Matrix Spike	Total/NA	Water	8260C	
490-151824-A-22 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: TW-04

Date Collected: 05/08/18 09:55

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 04:04	P1B	TAL NSH

Client Sample ID: TW-09

Date Collected: 05/08/18 11:00

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 04:31	P1B	TAL NSH

Client Sample ID: TW-17

Date Collected: 05/09/18 13:40

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 07:14	P1B	TAL NSH
Total/NA	Analysis	8260C		5	10 mL	10 mL	515110	05/16/18 04:38	RP	TAL NSH

Client Sample ID: TW-20

Date Collected: 05/08/18 12:00

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 06:47	P1B	TAL NSH

Client Sample ID: OB-04

Date Collected: 05/08/18 15:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 07:41	P1B	TAL NSH
Total/NA	Analysis	8260C		10	10 mL	10 mL	515110	05/16/18 05:04	RP	TAL NSH

Client Sample ID: OB-06

Date Collected: 05/08/18 13:30

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 04:58	P1B	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: OB-08

Date Collected: 05/08/18 17:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 05:26	P1B	TAL NSH

Client Sample ID: W-5

Date Collected: 05/09/18 12:10

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 08:08	P1B	TAL NSH

Client Sample ID: BR-01

Date Collected: 05/10/18 12:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	514817	05/15/18 09:29	P1B	TAL NSH

Client Sample ID: BR-02

Date Collected: 05/09/18 15:20

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 05:53	P1B	TAL NSH
Total/NA	Analysis	8260C		5	10 mL	10 mL	515110	05/16/18 04:13	RP	TAL NSH

Client Sample ID: BR-03

Date Collected: 05/09/18 17:25

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 08:35	P1B	TAL NSH

Client Sample ID: BR-04

Date Collected: 05/10/18 11:18

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	10 mL	10 mL	514817	05/15/18 09:56	P1B	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Client Sample ID: BR-10

Date Collected: 05/10/18 09:55

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 09:02	P1B	TAL NSH
Total/NA	Analysis	8260C		5	10 mL	10 mL	515110	05/16/18 03:47	RP	TAL NSH

Client Sample ID: BR-15

Date Collected: 05/09/18 10:35

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 06:20	P1B	TAL NSH

Client Sample ID: Dup-01

Date Collected: 05/09/18 01:01

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 10:24	P1B	TAL NSH

Client Sample ID: QAFB-01

Date Collected: 05/10/18 13:20

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 03:10	P1B	TAL NSH

Client Sample ID: QARB-01

Date Collected: 05/10/18 13:25

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 03:37	P1B	TAL NSH

Client Sample ID: QATB-01

Date Collected: 05/10/18 13:30

Date Received: 05/11/18 10:00

Lab Sample ID: 490-151752-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	514817	05/15/18 02:43	P1B	TAL NSH

Laboratory References:

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

TestAmerica Nashville

Method Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL NSH

Protocol References:

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

Accreditation/Certification Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-151752-1

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-19

1
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12

COOLER RECEIPT FORM



490-151752 Chain of Custody

Cooler Received/Opened On 05-11-2018 @ 10:00

Time Samples Removed From Cooler 1452 Time Samples Placed In Storage 1510 (2 Hour Window)

1. Tracking # 7386 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 31470366 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.5 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 NA

If yes, how many and where: 1 (front) + 1 (side)

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

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

I certify that I opened the cooler and answered questions 1-6 (initial) KA

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

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

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

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

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

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



Larger than this.

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

I certify that I unloaded the cooler and answered questions 7-14 (initial) ADH

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

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

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

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

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

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

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

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

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

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information						Carrier Tracking No(s):								COC No:																					
Client Contact: Mr. Joe Deatherage						Sampler: <i>Noel Garland</i>		Lab PM: Brown, Shali										Page: <i>1 of 2</i>																	
Company: AMEC Environment & Infrastructure, Inc. <i>Wood E&I Solutions</i>						Phone: <i>865-202-9213</i>		E-Mail: <i>shali.brown@testamericainc.com</i>										Job #:																	
Address: <i>2030 Falling Waters Rd. Suite 300</i>						Due Date Requested:		Analysis Requested										Preservation Codes:																	
City: Knoxville						TAT Requested (days):												A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA																	
State, Zip: <i>TN, 37932 37922</i>																		M - Hexane N - None O - AsNaO ₂ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ S ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)																	
Phone: 865-218-1049(Tel)						PO #: 0042600052 <i>3031152028.13</i>																													
Email: <i>joe.deatherage@woodpic.com</i>						WO #:																													
Project Name: Former Taylor Instruments						Project #: 49001213																													
Site: Rochester, NY						SSOW#:																													
Sample Identification						Sample Date		Sample Time		Sample Type (C=Comp, G=grab) BT=Tissue, A=Air		Matrix (W=water, S=solid, O=waste/oil, ST=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		Special Instructions/Note:															
<i>Tw-04 I</i>						<i>5-8-18</i>		<i>09:55</i>		<i>Grab</i>		<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>Tw-09</i>						<i>5-8-18</i>		<i>11:00</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>Tw-17</i>						<i>5-9-18</i>		<i>13:40</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>Tw-20</i>						<i>5-8-18</i>		<i>12:00</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>OB-04</i>						<i>5-8-18</i>		<i>15:35</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>OB-06</i>						<i>5-8-18</i>		<i>13:30</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>OB-08</i>						<i>5-8-18</i>		<i>17:35</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>w-5</i>						<i>5-9-18</i>		<i>12:00</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>BR-01</i>						<i>5-10-18</i>		<i>12:35</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>BR-02</i>						<i>5-9-18</i>		<i>15:00</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
<i>BR-03</i>						<i>5-9-18</i>		<i>17:25</i>				<i>Water</i>		<i>X</i>				<i>3</i>																	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																													
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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: <i>[Signature]</i>						Date/Time: <i>5-10-18 15:30</i>						Company: <i>Wood</i>						Received by: <i>[Signature]</i>						Date/Time: <i>5/11/18 1000</i>						Company: <i>JANAS</i>					
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: <i>3.5</i>																							

OCTOBER 2018

**LABORATORY REPORTS AND
CHAIN-OF-CUSTODY FORMS**

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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: 490-161953-1

Client Project/Site: Former Taylor Instruments

For:

Wood E&I Solutions Inc

2030 Falling Waters Road

Ste 300

Knoxville, Tennessee 37922

Attn: Mr. Joe Deatherage



Authorized for release by:

10/30/2018 3:37:28 PM

Shali Brown, Project Manager II

(615)301-5031

shali.brown@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Sample Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-161953-1	BR-01	Water	10/24/18 14:20	10/25/18 09:25
490-161953-2	BR-02	Water	10/24/18 09:15	10/25/18 09:25
490-161953-3	BR-03	Water	10/23/18 16:45	10/25/18 09:25
490-161953-4	BR-04	Water	10/24/18 12:20	10/25/18 09:25
490-161953-5	BR-10	Water	10/24/18 10:40	10/25/18 09:25
490-161953-6	BR-15	Water	10/23/18 14:25	10/25/18 09:25
490-161953-7	DUP-01	Water	10/24/18 01:01	10/25/18 09:25
490-161953-8	QATB-01	Water	10/24/18 15:10	10/25/18 09:25
490-161953-9	QAFB-01	Water	10/24/18 15:00	10/25/18 09:25
490-161953-10	QARB-01	Water	10/24/18 15:05	10/25/18 09:25

Case Narrative

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Job ID: 490-161953-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-161953-1

Comments

No additional comments.

Receipt

The samples were received on 10/25/2018 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

Method(s) 8260C: The following samples were diluted due to the nature of the sample matrix: BR-01 (490-161953-1), BR-03 (490-161953-3), BR-04 (490-161953-4) and BR-10 (490-161953-5). Elevated reporting limits (RLs) are provided.

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

VOA Prep

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

Definitions/Glossary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
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.

Glossary

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

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-01
Date Collected: 10/24/18 14:20
Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-1
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		5.00		ug/L			10/26/18 19:25	5
cis-1,2-Dichloroethene	553		5.00		ug/L			10/26/18 19:25	5
Tetrachloroethene	ND	F1 F2	5.00		ug/L			10/26/18 19:25	5
trans-1,2-Dichloroethene	30.8		5.00		ug/L			10/26/18 19:25	5
Trichloroethene	7.30	F1	5.00		ug/L			10/26/18 19:25	5
Vinyl chloride	300		5.00		ug/L			10/26/18 19:25	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					10/26/18 19:25	5
4-Bromofluorobenzene (Surr)	98		70 - 130					10/26/18 19:25	5
Dibromofluoromethane (Surr)	95		70 - 130					10/26/18 19:25	5
Toluene-d8 (Surr)	102		70 - 130					10/26/18 19:25	5

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-02

Date Collected: 10/24/18 09:15

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-2

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			10/26/18 18:57	1
cis-1,2-Dichloroethene	76.2		1.00		ug/L			10/26/18 18:57	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 18:57	1
trans-1,2-Dichloroethene	3.37		1.00		ug/L			10/26/18 18:57	1
Trichloroethene	211		1.00		ug/L			10/26/18 18:57	1
Vinyl chloride	5.58		1.00		ug/L			10/26/18 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		10/26/18 18:57	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/26/18 18:57	1
Dibromofluoromethane (Surr)	95		70 - 130		10/26/18 18:57	1
Toluene-d8 (Surr)	102		70 - 130		10/26/18 18:57	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-03

Date Collected: 10/23/18 16:45

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.94		1.00		ug/L			10/26/18 03:02	1
cis-1,2-Dichloroethene	26.8		1.00		ug/L			10/26/18 03:02	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 03:02	1
trans-1,2-Dichloroethene	1.22		1.00		ug/L			10/26/18 03:02	1
Trichloroethene	591		5.00		ug/L			10/26/18 19:53	5
Vinyl chloride	ND		1.00		ug/L			10/26/18 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/26/18 03:02	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		10/26/18 19:53	5
4-Bromofluorobenzene (Surr)	97		70 - 130		10/26/18 03:02	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/26/18 19:53	5
Dibromofluoromethane (Surr)	94		70 - 130		10/26/18 03:02	1
Dibromofluoromethane (Surr)	96		70 - 130		10/26/18 19:53	5
Toluene-d8 (Surr)	101		70 - 130		10/26/18 03:02	1
Toluene-d8 (Surr)	104		70 - 130		10/26/18 19:53	5

TestAmerica Nashville

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-04
Date Collected: 10/24/18 12:20
Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	8.24		5.00		ug/L			10/26/18 04:25	5
cis-1,2-Dichloroethene	1380		5.00		ug/L			10/26/18 04:25	5
Tetrachloroethene	ND		5.00		ug/L			10/26/18 04:25	5
trans-1,2-Dichloroethene	88.2		5.00		ug/L			10/26/18 04:25	5
Trichloroethene	921		5.00		ug/L			10/26/18 04:25	5
Vinyl chloride	51.9		5.00		ug/L			10/26/18 04:25	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					10/26/18 04:25	5
4-Bromofluorobenzene (Surr)	95		70 - 130					10/26/18 04:25	5
Dibromofluoromethane (Surr)	96		70 - 130					10/26/18 04:25	5
Toluene-d8 (Surr)	102		70 - 130					10/26/18 04:25	5

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-10
Date Collected: 10/24/18 10:40
Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-5
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		5.00		ug/L			10/26/18 04:53	5
cis-1,2-Dichloroethene	436		5.00		ug/L			10/26/18 04:53	5
Tetrachloroethene	ND		5.00		ug/L			10/26/18 04:53	5
trans-1,2-Dichloroethene	55.1		5.00		ug/L			10/26/18 04:53	5
Trichloroethene	164		5.00		ug/L			10/26/18 04:53	5
Vinyl chloride	5.44		5.00		ug/L			10/26/18 04:53	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130					10/26/18 04:53	5
4-Bromofluorobenzene (Surr)	95		70 - 130					10/26/18 04:53	5
Dibromofluoromethane (Surr)	96		70 - 130					10/26/18 04:53	5
Toluene-d8 (Surr)	102		70 - 130					10/26/18 04:53	5

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-15

Date Collected: 10/23/18 14:25

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-6

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			10/26/18 02:34	1
cis-1,2-Dichloroethene	2.33		1.00		ug/L			10/26/18 02:34	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 02:34	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 02:34	1
Trichloroethene	2.29		1.00		ug/L			10/26/18 02:34	1
Vinyl chloride	1.56		1.00		ug/L			10/26/18 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		10/26/18 02:34	1
4-Bromofluorobenzene (Surr)	96		70 - 130		10/26/18 02:34	1
Dibromofluoromethane (Surr)	95		70 - 130		10/26/18 02:34	1
Toluene-d8 (Surr)	104		70 - 130		10/26/18 02:34	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: DUP-01

Date Collected: 10/24/18 01:01

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-7

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			10/26/18 05:20	1
cis-1,2-Dichloroethene	2.51		1.00		ug/L			10/26/18 05:20	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 05:20	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 05:20	1
Trichloroethene	2.54		1.00		ug/L			10/26/18 05:20	1
Vinyl chloride	1.62		1.00		ug/L			10/26/18 05:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		10/26/18 05:20	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/26/18 05:20	1
Dibromofluoromethane (Surr)	94		70 - 130		10/26/18 05:20	1
Toluene-d8 (Surr)	101		70 - 130		10/26/18 05:20	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: QATB-01

Date Collected: 10/24/18 15:10

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-8

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			10/26/18 01:12	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 01:12	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 01:12	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 01:12	1
Trichloroethene	ND		1.00		ug/L			10/26/18 01:12	1
Vinyl chloride	ND		1.00		ug/L			10/26/18 01:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		10/26/18 01:12	1
4-Bromofluorobenzene (Surr)	98		70 - 130		10/26/18 01:12	1
Dibromofluoromethane (Surr)	94		70 - 130		10/26/18 01:12	1
Toluene-d8 (Surr)	102		70 - 130		10/26/18 01:12	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: QAFB-01

Date Collected: 10/24/18 15:00

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			10/26/18 02:07	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 02:07	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 02:07	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 02:07	1
Trichloroethene	ND		1.00		ug/L			10/26/18 02:07	1
Vinyl chloride	ND		1.00		ug/L			10/26/18 02:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		10/26/18 02:07	1
4-Bromofluorobenzene (Surr)	98		70 - 130		10/26/18 02:07	1
Dibromofluoromethane (Surr)	96		70 - 130		10/26/18 02:07	1
Toluene-d8 (Surr)	104		70 - 130		10/26/18 02:07	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: QARB-01

Lab Sample ID: 490-161953-10

Date Collected: 10/24/18 15:05

Matrix: Water

Date Received: 10/25/18 09:25

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			10/26/18 01:39	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 01:39	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 01:39	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 01:39	1
Trichloroethene	ND		1.00		ug/L			10/26/18 01:39	1
Vinyl chloride	ND		1.00		ug/L			10/26/18 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		10/26/18 01:39	1
4-Bromofluorobenzene (Surr)	98		70 - 130		10/26/18 01:39	1
Dibromofluoromethane (Surr)	95		70 - 130		10/26/18 01:39	1
Toluene-d8 (Surr)	103		70 - 130		10/26/18 01:39	1

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

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

Lab Sample ID: MB 490-552878/7

Matrix: Water

Analysis Batch: 552878

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			10/25/18 23:48	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			10/25/18 23:48	1
Tetrachloroethene	ND		1.00		ug/L			10/25/18 23:48	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/25/18 23:48	1
Trichloroethene	ND		1.00		ug/L			10/25/18 23:48	1
Vinyl chloride	ND		1.00		ug/L			10/25/18 23:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		10/25/18 23:48	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/25/18 23:48	1
Dibromofluoromethane (Surr)	95		70 - 130		10/25/18 23:48	1
Toluene-d8 (Surr)	103		70 - 130		10/25/18 23:48	1

Lab Sample ID: LCS 490-552878/3

Matrix: Water

Analysis Batch: 552878

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	20.0	21.08		ug/L		105	79 - 124
cis-1,2-Dichloroethene	20.0	20.13		ug/L		101	76 - 125
Tetrachloroethene	20.0	21.65		ug/L		108	80 - 126
trans-1,2-Dichloroethene	20.0	19.97		ug/L		100	79 - 126
Trichloroethene	20.0	20.88		ug/L		104	80 - 123
Vinyl chloride	20.0	20.66		ug/L		103	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 490-552878/4

Matrix: Water

Analysis Batch: 552878

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	20.0	21.26		ug/L		106	79 - 124	1	20
cis-1,2-Dichloroethene	20.0	20.01		ug/L		100	76 - 125	1	15
Tetrachloroethene	20.0	21.83		ug/L		109	80 - 126	1	17
trans-1,2-Dichloroethene	20.0	19.77		ug/L		99	79 - 126	1	15
Trichloroethene	20.0	21.09		ug/L		105	80 - 123	1	14
Vinyl chloride	20.0	20.97		ug/L		105	68 - 120	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130

TestAmerica Nashville

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

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

Lab Sample ID: LCSD 490-552878/4

Matrix: Water

Analysis Batch: 552878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 490-161953-6 MS

Matrix: Water

Analysis Batch: 552878

Client Sample ID: BR-15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		20.0	22.70		ug/L		113	54 - 150
cis-1,2-Dichloroethene	2.33		20.0	23.92		ug/L		108	68 - 131
Tetrachloroethene	ND		20.0	22.86		ug/L		114	57 - 138
trans-1,2-Dichloroethene	ND		20.0	20.57		ug/L		101	59 - 143
Trichloroethene	2.29		20.0	24.54		ug/L		111	63 - 135
Vinyl chloride	1.56		20.0	25.20		ug/L		118	57 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: 490-161953-6 MSD

Matrix: Water

Analysis Batch: 552878

Client Sample ID: BR-15

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		20.0	22.18		ug/L		111	54 - 150	2	17
cis-1,2-Dichloroethene	2.33		20.0	24.48		ug/L		111	68 - 131	2	17
Tetrachloroethene	ND		20.0	22.63		ug/L		113	57 - 138	1	16
trans-1,2-Dichloroethene	ND		20.0	20.94		ug/L		103	59 - 143	2	16
Trichloroethene	2.29		20.0	24.68		ug/L		112	63 - 135	1	17
Vinyl chloride	1.56		20.0	25.07		ug/L		118	57 - 150	0	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: MB 490-553033/7

Matrix: Water

Analysis Batch: 553033

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			10/26/18 14:44	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 14:44	1
Tetrachloroethene	ND		1.00		ug/L			10/26/18 14:44	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			10/26/18 14:44	1

TestAmerica Nashville

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

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

Lab Sample ID: MB 490-553033/7

Matrix: Water

Analysis Batch: 553033

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			10/26/18 14:44	1
Vinyl chloride	ND		1.00		ug/L			10/26/18 14:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					10/26/18 14:44	1
4-Bromofluorobenzene (Surr)	96		70 - 130					10/26/18 14:44	1
Dibromofluoromethane (Surr)	95		70 - 130					10/26/18 14:44	1
Toluene-d8 (Surr)	102		70 - 130					10/26/18 14:44	1

Lab Sample ID: LCS 490-553033/3

Matrix: Water

Analysis Batch: 553033

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	20.0	21.47		ug/L		107	79 - 124
cis-1,2-Dichloroethene	20.0	20.21		ug/L		101	76 - 125
Tetrachloroethene	20.0	22.14		ug/L		111	80 - 126
trans-1,2-Dichloroethene	20.0	20.09		ug/L		100	79 - 126
Trichloroethene	20.0	21.27		ug/L		106	80 - 123
Vinyl chloride	20.0	21.45		ug/L		107	68 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				
4-Bromofluorobenzene (Surr)	97		70 - 130				
Dibromofluoromethane (Surr)	95		70 - 130				
Toluene-d8 (Surr)	102		70 - 130				

Lab Sample ID: LCSD 490-553033/4

Matrix: Water

Analysis Batch: 553033

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	20.0	20.55		ug/L		103	79 - 124	4	20
cis-1,2-Dichloroethene	20.0	19.46		ug/L		97	76 - 125	4	15
Tetrachloroethene	20.0	21.15		ug/L		106	80 - 126	5	17
trans-1,2-Dichloroethene	20.0	18.87		ug/L		94	79 - 126	6	15
Trichloroethene	20.0	19.77		ug/L		99	80 - 123	7	14
Vinyl chloride	20.0	20.52		ug/L		103	68 - 120	4	15
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	95		70 - 130						
4-Bromofluorobenzene (Surr)	96		70 - 130						
Dibromofluoromethane (Surr)	95		70 - 130						
Toluene-d8 (Surr)	101		70 - 130						

TestAmerica Nashville

QC Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

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

Lab Sample ID: 490-161953-1 MS

Matrix: Water

Analysis Batch: 553033

Client Sample ID: BR-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		100	146.9		ug/L		145	54 - 150
cis-1,2-Dichloroethene	553		100	643.1	4	ug/L		90	68 - 131
Tetrachloroethene	ND	F1 F2	100	144.9	F1	ug/L		144	57 - 138
trans-1,2-Dichloroethene	30.8		100	161.9		ug/L		131	59 - 143
Trichloroethene	7.30	F1	100	147.1	F1	ug/L		140	63 - 135
Vinyl chloride	300		100	433.3		ug/L		134	57 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: 490-161953-1 MSD

Matrix: Water

Analysis Batch: 553033

Client Sample ID: BR-01

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		100	125.2		ug/L		123	54 - 150	16	17
cis-1,2-Dichloroethene	553		100	667.0	4	ug/L		114	68 - 131	4	17
Tetrachloroethene	ND	F1 F2	100	121.7	F2	ug/L		120	57 - 138	17	16
trans-1,2-Dichloroethene	30.8		100	142.8		ug/L		112	59 - 143	13	16
Trichloroethene	7.30	F1	100	126.3		ug/L		119	63 - 135	15	17
Vinyl chloride	300		100	426.3		ug/L		127	57 - 150	2	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	102		70 - 130

TestAmerica Nashville

QC Association Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

GC/MS VOA

Analysis Batch: 552878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-161953-3	BR-03	Total/NA	Water	8260C	
490-161953-4	BR-04	Total/NA	Water	8260C	
490-161953-5	BR-10	Total/NA	Water	8260C	
490-161953-6	BR-15	Total/NA	Water	8260C	
490-161953-7	DUP-01	Total/NA	Water	8260C	
490-161953-8	QATB-01	Total/NA	Water	8260C	
490-161953-9	QAFB-01	Total/NA	Water	8260C	
490-161953-10	QARB-01	Total/NA	Water	8260C	
MB 490-552878/7	Method Blank	Total/NA	Water	8260C	
LCS 490-552878/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-552878/4	Lab Control Sample Dup	Total/NA	Water	8260C	
490-161953-6 MS	BR-15	Total/NA	Water	8260C	
490-161953-6 MSD	BR-15	Total/NA	Water	8260C	

Analysis Batch: 553033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-161953-1	BR-01	Total/NA	Water	8260C	
490-161953-2	BR-02	Total/NA	Water	8260C	
490-161953-3	BR-03	Total/NA	Water	8260C	
MB 490-553033/7	Method Blank	Total/NA	Water	8260C	
LCS 490-553033/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-553033/4	Lab Control Sample Dup	Total/NA	Water	8260C	
490-161953-1 MS	BR-01	Total/NA	Water	8260C	
490-161953-1 MSD	BR-01	Total/NA	Water	8260C	

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: BR-01

Date Collected: 10/24/18 14:20

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	553033	10/26/18 19:25	AK1	TAL NSH

Client Sample ID: BR-02

Date Collected: 10/24/18 09:15

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	553033	10/26/18 18:57	AK1	TAL NSH

Client Sample ID: BR-03

Date Collected: 10/23/18 16:45

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 03:02	RP	TAL NSH
Total/NA	Analysis	8260C		5	10 mL	10 mL	553033	10/26/18 19:53	AK1	TAL NSH

Client Sample ID: BR-04

Date Collected: 10/24/18 12:20

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	552878	10/26/18 04:25	RP	TAL NSH

Client Sample ID: BR-10

Date Collected: 10/24/18 10:40

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	552878	10/26/18 04:53	RP	TAL NSH

Client Sample ID: BR-15

Date Collected: 10/23/18 14:25

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 02:34	RP	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Client Sample ID: DUP-01

Date Collected: 10/24/18 01:01

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 05:20	RP	TAL NSH

Client Sample ID: QATB-01

Date Collected: 10/24/18 15:10

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 01:12	RP	TAL NSH

Client Sample ID: QAFB-01

Date Collected: 10/24/18 15:00

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 02:07	RP	TAL NSH

Client Sample ID: QARB-01

Date Collected: 10/24/18 15:05

Date Received: 10/25/18 09:25

Lab Sample ID: 490-161953-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	552878	10/26/18 01:39	RP	TAL NSH

Laboratory References:

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

Method Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL NSH

Protocol References:

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

Accreditation/Certification Summary

Client: Wood E&I Solutions Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-161953-1

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-19

1
2
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12

COOLER RECEIPT FORM



490-161953 Chain of Custody

Cooler Received/Opened On 10-25-2018 @ 09:25

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 7463 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 14740456 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.2 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) + 1 (rear)

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 (initial) KA

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



➔ Larger than this.

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 (initial) ADH

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 (initial) ADH

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 (initial) ADH

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

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

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: <u>Neil Garland</u>		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:	
Client Contact: Mr. Joe Deatherage		Phone: <u>865-202-9213</u>		E-Mail: shali.brown@testamericainc.com				Page: <u>1 of 2 of 1</u>	
Company: <u>Wood Environment and Infrastructure Solutions</u> <u>AMEC Environment & Infrastructure, Inc.</u>				Analysis Requested				Job #:	
Address: <u>9725 Cogdill Road - 2030 Falling Waters Rd.</u> <u>Suite 300</u>				Due Date Requested:				Preservation Codes:	
City: Knoxville				TAT Requested (days):				A - HCL M - Hexane	
State, Zip: TN, 37932				PO #:				B - NaOH N - None	
Phone: 865-218-1049(Tel)				WO #:				C - Zn Acetate O - AsNaO2	
Email: joe.deatherage@amec.com wood plc.com				Project #:				D - Nitric Acid P - Na2O4S	
Project Name: Former Taylor Instruments				SSOW#:				E - NaHSO4 Q - Na2SO3	
Site: Rochester, NY				Field Filtered Sample (Yes or No)				F - MeOH R - Na2S2SO3	
				Perform MS/MSD (Yes or No)				G - Amchlor S - H2SO4	
				8260B TCE PCE 1,1-DCE ois/trans 1,2 DOE vinyl chloride				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:	
								Special Instructions/Note:	
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 ois/trans 1,2 DOE vinyl chloride	Total Number of containers
BR-01		10-24-18	14:30	G	Water	X	X		3
BR-02		10-24-18	09:15		Water	X	X		3
BR-03		10-23-18	16:45		Water	X	X		3
BR-04		10-24-18	12:20		Water	X	X		3
BR-10		10-24-18	10:40		Water	X	X		3
BR-15		10-23-18	14:25		Water	X	X		3
BR-15 ms/msd		10-23-18	14:25		Water	X	X		6
Dup-01		10-23-18	15:10		Water	X	X		3
IDW-01, QATB-01		10-24-18	14:45		Water	X	X		2
QAFB-01		10-24-18	15:00		Water	X	X		3
QARB-01		10-24-18	15:05		Water	X	X		3
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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: <u>Neil Garland</u>		Date/Time: <u>10-24-18 16:40</u>		Company: _____		Received by: <u>John Murphy</u>		Date/Time: <u>10/25/18 09:25</u>	
Relinquished by: _____		Date/Time: _____		Company: _____		Received by: _____		Date/Time: _____	
Relinquished by: _____		Date/Time: _____		Company: _____		Received by: _____		Date/Time: _____	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: <u>3.2</u>					

APPENDIX D
FIELD DATA RECORDS

MAY 2018
FIELD DATA RECORDS

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-10-18

SITE ID BR-01

SITE TYPE Monitor Well

SITE ACTIVITY START 11:28 END 12:50

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE / FT

INITIAL DEPTH TO WATER 12.43 FT

WELL DEPTH 38.6 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 12.94 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 0.51 FT

DRAWDOWN VOLUME 0.3315 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.171 L/MIN

BEGIN PURGING 11:31

END PURGING 12:34

TOTAL VOL. PURGED 2.80 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
Time									
11:36	FC	7.09	0.916	87.3	2.51	12.82	-75.4	12.67	Orange tint - slight odor
11:46	1.8	7.13	0.892	79.0	0.82	12.97	-79.0	12.82	
11:56	1.8	7.09	0.923	58.5	0.53	13.17	-73.2	12.95	Empty'd Flow cell
12:06	1.8	7.08	0.963	24.5	0.60	13.25	-67.4	13.02	
12:16	1.8	7.07	0.978	14.9	0.36	13.31	-65.2	13.06	slowed pump
12:22	0.9	7.07	0.004	11.6	0.30	13.51	-64.5	13.01	clear - no odor
12:28	0.9	7.05	1.023	9.95	0.28	13.57	-64.8	12.98	
12:34	0.9	7.04	1.026	9.90	0.25	13.50	-66.5	12.95	clear - no odor
12:35			collect	sample					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 23.5 ft b.t.c

SIGNATURE: 

NOTES

☒ VOC (modified list) Preservation HCL Sample Name BR-01 Time Collected 12:35

☐ VFA's

☐ Sulfate

☐ Methane/Ethane

☐ Duplicate

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-9-18

SITE ID BR-02

SITE TYPE Monitor Well

SITE ACTIVITY START 13:53 END 15:27

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 22.37 FT

WELL DEPTH 44 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 22.80 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A
✓

DRAWDOWN 0.43 FT

DRAWDOWN VOLUME 0.2795 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED ✓
COLLAR

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.122 L/MIN

BEGIN PURGING 13:59

END PURGING 15:17

TOTAL VOL. PURGED 2.48 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:05	FC	7.31	0.663	33.9	2.60	14.78	-42.2	22.50	Cloudy - no odor
14:15	1.5	7.46	0.654	18.3	0.81	14.44	-47.9	22.62	
14:25	1.5	7.53	0.657	14.8	0.69	14.56	-38.6	22.67	Slowed pump
14:35	1.3	7.52	0.654	13.9	0.71	14.49	-34.2	22.75	
14:45	1.3	7.53	0.657	12.5	0.72	14.39	-34.1	22.82	Slowed pump
14:53	0.8	7.54	0.655	12.4	0.55	15.17	-39.2	22.81	Clear - no odor
15:01	0.8	7.53	0.655	11.2	0.56	15.12	-39.3	22.81	
15:09	0.8	7.54	0.656	10.6	0.57	15.08	-41.7	22.60	
15:17	0.8	7.54	0.658	9.65	0.55	15.01	-44.5	22.80	Clear - no odor
15:20	Collect Sample								

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 @ 25.4 ft BLS

SIGNATURE: 

NOTES

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethane ☐ Duplicates
Preservation HCL Sample Name BR-02 Time Collected 15:20

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-9-18

SITE ID BR-03

SITE TYPE Monitor Well

SITE ACTIVITY START 15:29 END 17:35

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ 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 9.38 FT

WELL DEPTH 40.1 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 10.81 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.43 FT

DRAWDOWN VOLUME 0.9295 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR YES NO N/A

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.116 L/MIN

BEGIN PURGING 15:32

END PURGING 17:05

TOTAL VOL. PURGED 3.32 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
15:42	FC	7.70	0.773	11.0	2.01	13.36	-185.6	9.85	Orange tint - no odor
15:52	1.6	7.76	0.772	63.1	0.31	12.80	-189.1	10.21	slowed pump
16:02	1.2	7.76	0.768	68.3	0.60	13.09	-164.2	10.43	Orange tint - no odor
16:12	1.2	7.77	0.768	40.4	0.22	13.08	-144.0	10.57	
16:22	1.2	7.76	0.770	30.5	0.23	12.86	-178.8	10.68	
16:32	1.2	7.80	0.770	26.9	0.21	12.99	-174.8	10.78	
16:42	1.2	7.78	0.771	19.1	0.23	12.93	-171.9	10.84	slowed pump
16:50	0.8	7.76	0.770	19.4	0.21	13.97	-167.8	10.81	clear - no odor
16:58	0.8	7.74	0.775	18.8	0.20	13.97	-170.1	10.81	
17:06	0.8	7.72	0.772	17.4	0.19	13.85	-169.7	10.81	
17:14	0.8	7.72	0.774	19.2	0.18	13.76	-172.2	10.81	
17:22	0.8	7.72	0.773	19.1	0.16	13.68	-170.1	10.81	
17:25				Collect Sample					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 23.5 ft b10c

SIGNATURE: 

NOTES

Preservation HCL Sample Name BR-03 Time Collected 17:25

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethane ☐ Duplicate

Purged ~ 1L before connecting to Flow cell. Water was Rust Colored with black flakes.

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-10-18

SITE ID BR-04

SITE TYPE Monitor Well

SITE ACTIVITY START 10:02 END 11:22

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ 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 16.77 FT

WELL DEPTH 44.2 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 16.78 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP ☒ YES ☐ NO ☐ N/A

DRAWDOWN 0.01 FT

DRAWDOWN VOLUME 0.0065 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED ☒ YES ☐ NO ☐ N/A

COLLAR ☐ YES ☐ NO ☒ N/A

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.180 L/MIN

BEGIN PURGING 10:06

END PURGING 11:15

TOTAL VOL. PURGED 3.23 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
10:10	FC	8.16	0.366	53.7	2.23	14.64	3.5	16.78	orange tint - no odor
10:20	1.8	7.99	0.411	19.4	0.44	15.15	-35.4	16.78	
10:30	1.8	7.20	0.242	13.6	0.65	15.05	-90.4	16.78	clear - no odor
10:40	1.8	7.17	1.413	6.06	0.46	14.87	-84.7	16.78	
10:50	1.8	7.14	1.571	4.01	0.39	14.50	-77.4	16.78	
11:00	1.8	7.13	1.684	3.42	0.32	14.45	-71.7	16.78	
11:05	0.9	7.14	1.702	4.38	0.30	14.61	-70.9	16.78	
11:10	0.9	7.13	1.731	2.18	0.29	14.71	-65.8	16.78	
11:15	0.9	7.13	1.758	3.61	0.28	14.65	-63.7	16.78	
11:18				collect sample					

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 @ 26.5 ft btoC

SIGNATURE: [Signature]

NOTES

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethene ☐ Duplicate

Preservation HCL

Sample Name BR-04

Time Collected 11:18

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-10-18

SITE ID BR-10

SITE TYPE Monitor Well

SITE ACTIVITY START 08:30 END 10:00

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ 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 16.38 FT

WELL DEPTH 47 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 6 IN

FINAL DEPTH TO WATER 16.38 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A
✓

DRAWDOWN 0 FT

DRAWDOWN VOLUME 0 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED
COLLAR

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.180 L/MIN

BEGIN PURGING 08:42

END PURGING 09:51

TOTAL VOL. PURGED 3.23 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:51	PC	7.32	0.632	25.3	1.62	13.57	95.7	16.38	cloudy - no odor
09:01	1.8	7.62	0.636	14.7	1.05	13.49	180.2	16.38	
09:11	1.8	7.78	0.636	11.0	0.99	13.68	112.8	16.38	
09:21	1.8	7.80	0.637	8.18	0.98	13.50	42.0	16.38	
09:31	1.8	7.82	0.638	6.63	1.02	13.56	4.2	16.38	
09:41	1.8	7.82	0.638	8.08	0.57	13.49	-21.9	16.38	
09:46	0.9	7.82	0.637	7.51	0.60	13.48	-20.4	16.38	
09:51	0.9	7.82	0.638	6.17	0.59	13.49	-23.1	16.31	
09:55	collect sample								

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 @ 25.5 ft bto c

SIGNATURE: [Signature]

NOTES

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethane ☐ Duplicate

Preservation HCL BR-10 Time Collected 09:55

Purged ~ 1 L before connecting to Flow Cell
water was Rust colored.

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-9-18

SITE ID BR-15

SITE TYPE Monitor Well

SITE ACTIVITY START 08:00 END 10:49

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICK-UP (FROM GROUND) — FT

PROTECTIVE CASING / WELL DIFFERENCE -0.35 FT

INITIAL DEPTH TO WATER 18.55 FT

WELL DEPTH 72 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 6 IN

FINAL DEPTH TO WATER 20.76 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A
✓ — —

DRAWDOWN 2.21 FT

DRAWDOWN VOLUME 3.315 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR ✓ — —

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.145 L/MIN

BEGIN PURGING 08:13

END PURGING 10:33

TOTAL VOL. PURGED 5.28 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:18	FC	7.94	0.196	11.2	6.88	14.42	160.0	18.64	clear - no odor
08:30	2	8.37	0.187	6.63	5.27	14.39	173.9	18.93	
08:42	2	8.50	0.184	4.17	1.14	14.41	144.3	19.22	
08:54	2	8.65	0.184	4.91	0.97	14.61	113.2	19.54	
09:06	2	8.61	0.184	2.38	0.74	14.80	101.4	19.97	
09:18	2	8.55	0.183	2.08	0.70	14.78	99.8	20.08	
09:30	2	8.54	0.183	2.12	0.57	14.87	93.1	20.32	
09:42	2	8.55	0.183	1.77	0.60	14.95	89.5	20.51	slow pump
09:54	2	8.65	0.184	1.54	0.63	15.59	82.8	20.67	
10:09	1.2	8.66	0.184	1.63	0.56	15.64	80.7	20.73	slow pump
10:17	0.8	8.68	0.184	1.60	0.58	15.94	80.3	20.74	
10:25	0.8	8.68	0.184	1.34	0.60	16.06	79.0	20.74	
10:33	0.8	8.67	0.184	1.78	0.62	16.08	79.9	20.75	clear - no odor
10:35				Collect Sample					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 29.5 ft brc

SIGNATURE: *[Signature]*

NOTES

☒ VOC (modified list) Preservation HCL Sample Name BR-15 Time Collected 10:35

☐ VFA's

☐ Sulfate

☐ Methane/Ethene

☐ Duplicate

Collect MS/MSD @ BR-15

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-8-18

SITE ID 08-06

SITE TYPE Monitor Well

SITE ACTIVITY START 12:06 END 13:38

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ 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 3.98 FT

WELL DEPTH 16.45 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 5.28 FT

SCREEN LENGTH 10 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.30 FT

DRAWDOWN VOLUME 0.208 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.135 L/MIN

BEGIN PURGING 12:09

END PURGING 13:28

TOTAL VOL. PURGED 2.78 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
Time									
12:14	FC	7.01	0.758	4.66	2.76	12.63	-81.1	4.56	Clear - solvent odor
12:24	1.7	7.05	0.745	4.49	0.42	12.33	-114.2	4.28	slowed pump
12:34	1.3	7.08	0.746	3.63	0.20	12.89	-135.0	5.26	
12:41	1	7.05	0.748	3.67	0.17	12.68	-158.3	5.27	
12:48	1	7.07	0.746	3.72	0.13	12.50	-164.8	5.32	slowed pump
12:56	1	7.07	0.743	4.02	0.12	12.67	-173.7	5.29	
13:04	1	7.07	0.743	12.9	0.11	12.62	-198.8	5.29	
13:12	1	7.06	0.736	4.79	0.09	12.48	-210.5	5.28	
13:20	1	7.06	0.734	4.74	0.08	12.42	-214.6	5.28	
13:28	1	7.07	0.731	4.48	0.07	12.37	-213.3	5.28	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 11.5 ft btoC

SIGNATURE: 

NOTES

☒ VOC (modified list) ☐ HCL Preservation Sample Name Time Collected

☐ VFA's 08-06 13:30

☐ Sulfate

☒ Methane/Ethane 08-06 13:30

☐ Duplicate

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-8-18

SITE ID OB-08

SITE TYPE Monitor Well

SITE ACTIVITY START 15:41 END 17:40

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 5.57 FT

WELL DEPTH 25.3 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 7.53 FT

SCREEN LENGTH 10 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.96 FT

DRAWDOWN VOLUME 0.3136 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.122 L/MIN

BEGIN PURGING 15:45

END PURGING 17:31

TOTAL VOL. PURGED 3.35 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
15:49	FL	7.01	0.929	18.8	0.94	14.46	-107.4	6.33	clear - slight odor
15:59	1.6	7.06	0.927	15.9	0.35	14.02	-110.4	7.05	slowed pump
16:09	1.2	7.08	0.929	31.6	0.21	14.40	-104.0	7.22	cloudy - black flakes
16:19	1.2	7.08	0.934	31.4	0.13	13.93	-106.3	7.44	Empty Flow Cell
16:29	1.2	7.08	0.944	23.5	0.58	13.60	-99.2	7.51	cloudy - slight odor
16:39	1.2	7.09	0.946	31.4	0.14	13.69	-92.2	7.52	
16:49	1.2	7.09	0.951	26.9	0.10	13.57	-90.2	7.53	slowed pump
16:56	0.8	7.09	0.954	19.5	0.07	13.64	-91.2	7.53	cloudy - slight odor
17:03	0.8	7.09	0.960	17.3	0.06	13.63	-87.4	7.53	
17:10	0.8	7.09	0.966	16.5	0.06	13.59	-91.1	7.53	
17:17	0.8	7.09	0.969	13.9	0.05	13.67	-91.8	7.53	clear - slight odor
17:24	0.8	7.09	0.975	10.1	0.04	13.59	-93.6	7.53	
17:31	0.8	7.08	0.982	9.65	0.03	13.61	-90.5	7.53	
17:35			Collect Sample						

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 @ 21 ft btl

SIGNATURE: [Signature]

NOTES

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethene ☐ Duplicate

Preservation HCL

Sample Name OB-08

Time Collected 17:35

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-8-2018

SITE ID TW-04

SITE TYPE Monitor Well

SITE ACTIVITY START 08:20 END 10:09

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 8.90 FT

WELL DEPTH 17.3 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 11.12 FT

SCREEN LENGTH 5 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 2.22 FT

DRAWDOWN VOLUME 0.3552 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

COLLAR YES NO N/A

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.130 L/MIN

BEGIN PURGING 08:35

END PURGING 09:51

TOTAL VOL. PURGED 2.56 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA									
Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:40	FL	7.14	0.712	3.44	6.61	9.78	183.7	9.84	Clear - no odor
08:50	1.4	7.28	0.704	1.46	5.98	9.60	101.5	10.68	slowed pump
09:00	1.3	7.28	0.695	1.48	2.77	9.80	24.4	10.92	
09:10	1.3	7.26	0.691	1.13	3.21	9.77	-16.7	11.10	
09:20	1.3	7.26	0.688	1.22	3.73	9.87	-33.5	11.22	slowed pump
09:30	1.2	7.26	0.687	1.93	3.80	10.08	-40.3	11.13	
09:37	0.9	7.25	0.686	1.66	3.64	10.07	-47.2	11.12	
09:44	0.9	7.25	0.685	1.32	3.78	10.08	-48.4	11.12	
09:51	0.9	7.24	0.685	1.87	3.69	10.12	-49.2	11.12	
09:55			Collect	Sample					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 14.8 ft b/toc

SIGNATURE: 

NOTES

Preservation HCL Sample Name TW-04 Time Collected 09:55

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☒ Methane/Ethane ☐ Duplicate

Sample Name TW-04 Time Collected 09:55

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-8-2018

SITE ID TW-09

SITE TYPE Monitor Well

SITE ACTIVITY START 10:10 END 11:04

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 11.94 FT

WELL DEPTH 17.70 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 12.20 FT

SCREEN LENGTH 5 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP ☒ YES ☐ NO ☐ N/A

DRAWDOWN 0.26 FT

DRAWDOWN VOLUME 0.0416 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED ☒ YES ☐ NO ☐ N/A

COLLAR ☒ YES ☐ NO ☐ N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.151 L/MIN

BEGIN PURGING 10:11

END PURGING 10:56

TOTAL VOL. PURGED 1.77 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
10:15	FC	7.10	0.717	19.4	2.52	11.34	20.0	12.10	clear - no odor
10:25	1.6	7.12	0.716	12.2	5.38	11.08	31.2	12.15	
10:35	1.6	7.13	0.717	6.98	2.77	11.07	34.5	12.19	slowed pump
10:42	1	7.14	0.720	3.68	1.88	10.96	36.3	12.20	
10:49	1	7.14	0.720	3.52	1.84	11.04	37.8	12.20	
10:56	1	7.14	0.722	2.55	1.77	11.05	38.2	12.20	
11:00	Collect Sample								

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 @ 15ft btoC

SIGNATURE: 

NOTES

☒ VOC (modified list) ☐ VFA's ☐ Sulfate ☐ Methane/Ethane ☐ Duplicate

Preservation HCL

Sample Name TW-09

Time Collected 11:00

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-9-18

SITE ID TW-17

SITE TYPE Monitor Well

SITE ACTIVITY START 12:26 END 13:51

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2 FT

PROTECTIVE CASING / WELL DIFFERENCE 0.25 FT

INITIAL DEPTH TO WATER 7.40 FT

WELL DEPTH 17.04 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 9.10 FT

SCREEN LENGTH 5 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.70 FT

DRAWDOWN VOLUME 0.272 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.119 L/MIN

BEGIN PURGING 12:29

END PURGING 13:37

TOTAL VOL. PURGED 2.10 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
12:33	FL	6.85	0.796	5.62	1.34	12.30	-83.0	8.21	Clear - slight odor
12:43	1.5	6.94	0.781	3.31	0.65	11.90	-101.7	8.90	Slowed pump
12:53	1.3	6.98	0.768	3.11	0.29	12.56	-121.0	9.08	
13:03	1.2	6.97	0.753	2.77	0.25	12.84	-129.0	9.11	Clear - slight odor
13:13	1.2	6.98	0.750	3.26	0.14	12.92	-143.7	9.18	Slowed pump
13:21	0.8	6.94	0.750	3.54	0.16	13.08	-148.8	9.13	
13:29	0.8	6.97	0.758	3.23	0.14	13.11	-153.3	9.10	
13:37	0.8	6.97	0.753	6.31	0.13	13.15	-148.7	9.10	
13:40				collect sample					Clear - slight odor

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing intake @ 14.75 ft b.t.c

SIGNATURE: 

NOTES

☒ VOC (modified list) ☐ HCL Preservation Sample Name Time Collected

☐ VFA's TW-17 13:40

☐ Sulfate TW-17 13:40

☒ Methane/Ethane

☐ Duplicate

FIELD DATA RECORD - GROUNDWATER SAMPLING

DATE 5-8-18

SITE TYPE	Monitor Well
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JOB NUMBER	3031152028.13
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MEASUREMENT POINT

PROTECTIVE
CASING STICKUP
(FROM GROUND) 2.3 FT

PROTECTIVE
CASING / WELL
DIFFERENCE

WELL DIAMETER 2 IN

WELL	YES	NO	N/A
INTEGRITY: CAP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CASING _____
LOCKED Z _____
COLLAR _____

TOTAL VOL. PURGED 1.66 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

Rochester GW_Sample_Form.xls

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 5-9-18

SITE ID W-5

SITE TYPE Monitor Well

SITE ACTIVITY START 10:50 END 12:22

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ 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 5.20 FT

WELL DEPTH 21.8 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 2 IN

FINAL DEPTH TO WATER 7.81 FT

SCREEN LENGTH 5 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 2.61 FT

DRAWDOWN VOLUME 0.4176 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.100 L/MIN

BEGIN PURGING 10:54

END PURGING 12:08

TOTAL VOL. PURGED 1.92 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
10:58	FC	6.83	1.118	11.5	2.24	12.88	-14.1	6.13	Clear - No odor
11:08	1.4	6.90	1.136	94.6	0.63	12.83	-16.3	7.27	Orange tint - Slowed pump
11:18	1	6.92	1.137	31.6	0.34	13.46	-19.0	7.60	Emptied Flow cell
11:28	1	6.89	1.133	19.8	0.39	13.36	-27.2	7.93	Slowed pump
11:38	0.9	6.91	1.132	14.2	0.25	14.07	-31.0	7.86	Clear - No odor
11:48	0.9	6.88	1.135	8.51	0.19	14.12	-38.2	7.82	
11:58	0.9	6.86	1.136	8.11	0.18	14.12	-36.3	7.82	
12:08	0.9	6.87	1.134	7.90	0.17	14.07	-38.2	7.81	
12:10				Collect Sample					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP TYPE OF TUBING TYPE OF PUMP MATERIAL TYPE OF BLADDER MATERIAL (if applicable)

☒ PERISTALTIC ☐ TEFLON OR TEFLON LINED ☐ POLYVINYL CHLORIDE ☐ TEFLON

☐ SUBMERSIBLE ☒ HIGH DENSITY POLYETHYLENE ☐ STAINLESS STEEL ☒ OTHER NA

☐ OTHER ☐ OTHER ☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 19.3 ft btoC

SIGNATURE: 

NOTES

☒ VOC (modified list) ☐ HCL Preservation Sample Name Time Collected

☐ VFA's ☐ W-5 12:10

☐ Sulfate ☐ W-5 12:10

☒ Methane/Ethane ☐ Duplicate 12:10

☒ Duplicate

FIELD DATA RECORD - GROUNDWATER SAMPLING

DATE 5-10-18

SITE TYPE	Monitor Well
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JOB NUMBER 3031152028.13

MEASUREMENT POINT

X	TOP OF WELL RISER
	TOP OF PROTECTIVE CASING
	OTHER

PROTECTIVE
CASING STICKUP
(FROM GROUND)

PROTECTIVE CASING / WELL DIFFERENCE  FT

INITIAL DEPTH
TO WATER

FT

WELL DEPTH  FT

PID	NA	PPM
AMBIENT AIR		

WELL
DIAMETER

FINAL DEPTH
TO WATER

FT

SCREEN LENGTH

FT.

PID WELL	NA	PPM
MOUTH		

WELL INTEGRITY: CAP ☒ YES ☐ NO ☐ N/A

DRAWDOWN 

DRAWDOWN VOLUME  GAL

PRODUCT THICKNESS	NA	FT
-------------------	----	----

LOCKED
COLLAR

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

BEGIN PURGING

END PURGING

TOTAL VOL.
PURGED GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

[illegible]

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: 

NOTES

<input checked="" type="checkbox"/>	VOC (modified list)
<input type="checkbox"/>	VFA's
<input type="checkbox"/>	Sulfate
<input type="checkbox"/>	Methane/Ethane
<input type="checkbox"/>	Duplicate

Preservation
HCL

Sample Name
FDW-0

Time Collected
13:00

OCTOBER 2018
FIELD DATA RECORDS

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 10-24-18

SITE ID BR-01

SITE TYPE Monitor Well

SITE ACTIVITY START 12:32 END

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2 FT

PROTECTIVE CASING / WELL DIFFERENCE 2.3 FT

INITIAL DEPTH TO WATER 13.43 FT

WELL DEPTH 38.6 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 14.13 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 0.70 FT

DRAWDOWN VOLUME 0.455 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

COLLAR YES NO N/A

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.159 L/MIN

BEGIN PURGING 12:53

END PURGING 14:18

TOTAL VOL PURGED 3.50 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
12:56	FL	7.26	0.925	23.0	2.27	12.65	-1.5	13.51	cloudy small black flakes
13:06	1.8	7.29	0.859	16.4	1.11	12.87	-25.9	13.78	
13:16	1.8	7.15	0.873	9.18	1.29	13.01	-63.0	13.95	slow pump
13:26	1.8	7.06	0.899	8.69	1.62	13.26	-69.4	14.12	clear - no odor
13:36	1.6	7.01	0.974	5.59	2.02	12.96	-67.9	14.16	slow pump
13:43	1	6.99	0.987	4.82	1.63	12.98	-70.2	14.14	clear - no odor
13:50	1	6.99	0.996	2.52	1.47	12.92	-70.3	14.14	small black flakes
13:57	1	6.99	0.998	3.66	1.00	12.85	-64.7	14.13	
14:04	1	6.99	0.996	3.29	0.77	12.96	-68.8	14.13	
14:11	1	7.00	0.994	3.43	0.61	12.85	-71.9	14.13	
14:18	1	6.99	0.990	3.11	0.57	13.01	-72.7	14.13	clear - no odor
14:20				collect sample					small black flakes

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 @ 25 ft btl

SIGNATURE: 

NOTES

	Preservation	Sample Name	Time Collected
<input checked="" type="checkbox"/> VOC (modified list)	HCL	BR-01	14:20
<input type="checkbox"/> VFA's			
<input type="checkbox"/> Sulfate			
<input type="checkbox"/> Methane/Ethane			
<input type="checkbox"/> Duplicate			

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 11-24-18

SITE ID BR-02

SITE TYPE Monitor Well

SITE ACTIVITY START 07:55 END 09:25

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) FT

PROTECTIVE CASING / WELL DIFFERENCE -0.5 FT

INITIAL DEPTH TO WATER 22.91 FT

WELL DEPTH 44 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 23.22 FT

SCREEN LENGTH 119 FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A
☒ ☐ ☐

DRAWDOWN 0.31 FT

DRAWDOWN VOLUME 0.2015 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED ☒ COLLAR ☒

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.114 L/MIN

BEGIN PURGING 08:12

END PURGING 09:12

TOTAL VOL. PURGED 1.78 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:16	FC	7.53	0.603	11.5	2.00	12.47	-84.3	23.0	Clear - no odor
08:26	1.2	7.66	0.609	10.4	0.48	12.79	-134.1	23.09	
08:36	1.2	7.68	0.608	8.20	0.35	13.31	-143.0	23.18	
08:46	1.2	7.67	0.607	6.45	0.38	13.47	-141.4	23.22	
08:56	1.2	7.67	0.610	5.86	0.33	13.56	-145.0	23.25	slowed pump
09:04	0.8	7.66	0.612	5.61	0.35	13.51	-140.5	23.22	
09:12	0.8	7.67	0.611	5.63	0.36	13.48	-144.2	23.22	
09:15			collect sample						

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 @ 24.9 ft bvc

SIGNATURE: [Signature]

NOTES

☒ VOC (modified list) HCL Preservation Sample Name BR-02 Time Collected 09:15
☐ VFA's
☐ Sulfate
☐ Methane/Ethane
☐ Duplicate

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 10-23-18

SITE ID BR-03

SITE TYPE Monitor Well

SITE ACTIVITY START 14:48 END 16:54

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT
☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) 2.4 FT

PROTECTIVE CASING / WELL DIFFERENCE 2.4 FT

INITIAL DEPTH TO WATER 11.53 FT

WELL DEPTH 40.1 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4.2 IN

FINAL DEPTH TO WATER 12.96 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.43 FT

DRAWDOWN VOLUME 0.9295 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.119 L/MIN

BEGIN PURGING 14:52

END PURGING 16:43

TOTAL VOL. PURGED 3.43 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:57	FL	8.33	0.579	17.7	3.31	14.85	25.6	11.80	clear - no odor
15:07	1.5	8.32	0.597	8.23	0.41	14.69	-131.0	12.18	
15:17	1.5	8.32	0.600	5.41	0.31	14.66	-195.0	12.46	slow pump
15:27	1.2	8.24	0.625	3.68	0.28	14.72	-229.3	12.61	
15:37	1.2	8.06	0.678	3.41	0.26	14.80	-233.7	12.74	
15:47	1.2	7.87	0.709	7.13	0.26	14.86	-213.2	12.84	
15:57	1.2	7.73	0.730	4.47	0.30	14.36	-181.6	12.89	
16:07	1.2	7.69	0.733	2.68	0.30	14.14	-169.5	12.92	slow pump
16:17	1	7.70	0.723	0.90	0.30	14.26	-130.8	12.92	
16:27	1	7.71	0.717	2.50	0.30	14.33	-140.4	12.93	
16:35	0.8	7.69	0.720	1.53	0.31	14.28	-137.3	12.94	
16:43	0.8	7.68	0.722	1.54	0.32	14.29	-136.9	12.95	
16:45			Collect	Sample					clear - no odor

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 @ 25.9 ft b10c

SIGNATURE: 

NOTES

☒ VOC (modified list)
☐ VFA's
☐ Sulfate
☐ Methane/Ethane
☐ Duplicate

Preservation HCL

Sample Name BR-03

Time Collected 16:45

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 11-24-18

SITE ID BR-04

SITE TYPE Monitor Well

SITE ACTIVITY START 11:48 END 12:30

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 18.47 FT

WELL DEPTH 44.2 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 4 IN

FINAL DEPTH TO WATER 18.47 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 0 FT

DRAWDOWN VOLUME 0 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.200 L/MIN

BEGIN PURGING 11:59

END PURGING 12:18

TOTAL VOL. PURGED 4.11 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
11:03	FL	8.01	0.178	86.6	1.95	14.05	-47.5	18.47	Orange tint - no odor
11:13	2	7.60	0.264	22.5	0.42	14.32	-101.3	18.47	Some orange tint
11:23	2	7.14	0.222	15.8	0.77	14.30	-99.5	18.47	cloudy no odor
11:33	2	7.11	1.516	7.85	0.85	14.42	-90.7	18.47	
11:43	2	7.10	1.678	6.61	1.48	14.41	-95.4	18.47	
11:53	2	7.09	1.750	4.57	1.46	14.35	-98.0	18.47	
12:03	2	7.09	1.752	4.62	1.35	14.25	-100.7	18.47	
12:08	1	7.09	1.797	2.53	1.28	14.34	-101.9	18.47	
12:13	1	7.09	1.816	2.53	1.26	14.35	-103.0	18.47	
12:18	1	7.08	1.828	2.78	1.22	14.33	-103.7	18.47	
12:20				Collect sample					clear - no odor

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 @ 26.15 ft bto c

SIGNATURE: me Rkl

NOTES

☒ VOC (modified list)
☐ VFA's
☐ Sulfate
☐ Methane/Ethane
☐ Duplicate

Preservation HCL

Sample Name BR-04

Time Collected 12:20

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 10-24-18

SITE ID BR-10

SITE TYPE Monitor Well

SITE ACTIVITY START 09:35 END 10:47

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ TOP OF WELL RISER
☐ TOP OF PROTECTIVE CASING
☐ OTHER

PROTECTIVE CASING STICKUP (FROM GROUND) — FT

PROTECTIVE CASING / WELL DIFFERENCE -0.5 FT

INITIAL DEPTH TO WATER 17.98 FT

WELL DEPTH 47 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 6 IN

FINAL DEPTH TO WATER 17.98 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 4 FT

DRAWDOWN VOLUME 6 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED YES NO N/A

WELL COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.200 L/MIN

BEGIN PURGING 09:46

END PURGING 10:37

TOTAL VOL. PURGED 2.65 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
09:52	FC	7.72	0.671	21.2	1.63	13.70	-82.6	17.98	Cloudy - no odor
10:02	2	7.74	0.698	8.47	0.37	13.84	-162.4	17.98	clear - no odor
10:12	2	7.72	0.717	6.67	0.31	13.93	-175.6	17.98	
10:22	2	7.70	0.706	6.36	0.29	14.00	-179.3	17.98	
10:27	1	7.71	0.705	6.57	0.28	14.07	-163.5	17.98	
10:32	1	7.70	0.707	6.60	0.28	14.00	-182.5	17.98	
10:37	1	7.70	0.709	4.84	0.29	14.00	-181.8	17.98	clear - no odor
10:40			collected	sample					

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 @ 25.0 ft bwa

SIGNATURE: 

NOTES

☒ VOC (modified list)
☐ VFA's
☐ Sulfate
☐ Methane/Ethane
☐ Duplicate

Preservation HCL

Sample Name BR-10

Time Collected 10:40

Purged ~ 1 L before connecting to Flow Cell
water was rust colored with some fines.

Wood Environment & Infrastructure Solutions Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Former Taylor Instruments
2018 Semi-Annual Sampling Event

DATE 10-23-18

SITE ID BR-15

SITE TYPE Monitor Well

SITE ACTIVITY START 12:15 END 14:46

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT

☒ 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 19.96 FT

WELL DEPTH 72 FT

PID AMBIENT AIR NA PPM

WELL DIAMETER 6 IN

FINAL DEPTH TO WATER 21.89 FT

SCREEN LENGTH NA FT

PID WELL MOUTH NA PPM

WELL INTEGRITY: CAP YES NO N/A

DRAWDOWN 1.93 FT

DRAWDOWN VOLUME 2895 GAL

PRODUCT THICKNESS NA FT

CASING LOCKED COLLAR YES NO N/A

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE 0.15 L/MIN

BEGIN PURGING 12:29

END PURGING 14:23

TOTAL VOL. PURGED 4.47 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
12:37	FL	8.21	0.337	3.98	1.40	13.96	-106.3	20.03	clear - no odor
12:49	2	8.40	0.324	6.11	0.40	14.74	-172.6	20.34	
13:00	2	8.45	0.321	4.12	0.32	14.48	-187.9	20.63	
13:11	2	8.46	0.320	2.64	0.31	14.55	-199.0	20.92	
13:22	2	8.47	0.319	3.27	0.33	14.59	-213.9	21.20	
13:33	2	8.49	0.320	3.36	0.30	14.51	-223.2	21.45	slowed pump
13:43	1.5	8.39	0.320	3.18	0.26	14.52	-190.6	21.62	
13:53	1.5	8.33	0.321	2.25	0.26	14.59	-168.4	21.78	slowed pump
14:03	1	8.42	0.322	1.79	0.21	14.38	-200.7	21.81	
14:13	1	8.39	0.323	1.61	0.22	14.35	-203.1	21.84	
14:23	1	8.35	0.324	2.15	0.22	14.32	-204.7	21.87	
14:25				collect	sample				

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 @ 29.05 ft btrc

SIGNATURE: 

NOTES

☒ VOC (modified list)
☐ VFA's
☐ Sulfate
☒ Methane/Ethane
☒ Duplicate

Preservation HCL

Sample Name BR-15

Time Collected 14:25

14:25

ms/msd @ 14:25

FIELD DATA RECORD - GROUNDWATER SAMPLING

DATE 11-24-18

SITE TYPE	Monitor Well
-----------	--------------

JOB NUMBER	3031152028.13
------------	---------------

WATER LEVEL

MEASUREMENT POINT	
<input checked="" type="checkbox"/> X	TOP OF WELL RISER
<input type="checkbox"/>	TOP OF PROTECTIVE CASING
<input type="checkbox"/>	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	
	NA	FT

PID WELL	NA	PPM
MOUTH		

WELL	YES	NO	N/A
INTEGRITY: CAP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DRAWDOWN	NA	FT
----------	----	----

DRAWDOWN VOLUME		
	NA	GAL

PRODUCT THICKNESS	NA	FT
-------------------	----	----

SAGING
LOCKED
COLLAR

$$((\text{initial} - \text{final}) \times 0.16 \text{ (2-inch)} \text{ or } \times 0.65 \text{ (4-inch)} \text{ or } \times 1.5 \text{ (6-inch)})$$

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

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☐ PERISTALTIC

☐ SUBMERSIBLE

☒ OTHER NA

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☒ OTHER _____ NA

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☒ OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake @

SIGNATURE:

NOTES

<input checked="" type="checkbox"/>	VOC (modified list)
<input type="checkbox"/>	VFA's
<input type="checkbox"/>	Sulfate
<input type="checkbox"/>	Methane/Ethene
<input type="checkbox"/>	Duplicate

Preservation
HCL

Sample Name
QARB-01

Time Collected
15:05

FIELD DATA RECORD - GROUNDWATER SAMPLING

DATE 11-24-18

SITE TYPE	Monitor Well
------------------	--------------

JOB NUMBER 3031152028.13

WATER LEVEL

MEASUREMENT POINT	
<input type="checkbox"/> X	TOP OF WELL RISER
<input type="checkbox"/>	TOP OF PROTECTIVE CASING
<input type="checkbox"/>	OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	NA	FT
---	----	----

PROTECTIVE CASING / WELL DIFFERENCE	NA	FT
---	----	----

INITIAL DEPTH TO WATER	NA	FT
---------------------------	----	----

WELL DEPTH	NA		FT	
	1	2	1	2

PID	
AMBIENT AIR	NA PPM

WELL DIAMETER	NA	IN
------------------	----	----

FINAL DEPTH TO WATER	NA	FT
-------------------------	----	----

SCREEN LENGTH		
	NA	FT

PID WELL	NA	PPM
MOUTH		

WELL	YES	NO	N/A
INTEGRITY: CAP			
CASING			
LOCKED			
COLLAR			

DRAWDOWN	NA	FT
----------	----	----

DRAWDOWN VOLUME	NA		GAL	
	1	2	1	2

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

[illegible]

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☐ PERISTALTIC
☐ SUBMERSIBLE
☒ OTHER NA

TYPE OF TUBING

☐ TEFLON OR TEFLON LINED
☐ HIGH DENSITY POLYETHYLENE
☒ OTHER NA

TYPE OF PUMP MATERIAL

☐ POLYVINYL CHLORIDE
☐ STAINLESS STEEL
☒ OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)

☐ TEFLON
☒ OTHER NA

PURGE OBSERVATIONS

Tubing Intake

SIGNATURE: 

NOTES

<input checked="" type="checkbox"/>	VOC (modified list)
<input type="checkbox"/>	VFA's
<input type="checkbox"/>	Sulfate
<input type="checkbox"/>	Methane/Ethane
<input type="checkbox"/>	Duplicate

Preservation
HCL

Sample Name
QATB-U

Time Collected
15:10

APPENDIX E

WELL CONSTRUCTION INFORMATION

Appendix E Well Construction Information

2018 Annual Progress Report
Former Taylor Instruments Site
Rochester, New York

Well ID	Date Installed	Well Purpose/Type	Well Location	Boring Depth	Well Depth	Screen Interval		Survey Coordinates			Well Material	Completion		
						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

ATTACHMENT 2

**PERIODIC REVIEW
REPORT**

OCTOBER 30, 2018 SSDS INSPECTION REPORT

INSPECTION REPORT

October 30, 2018

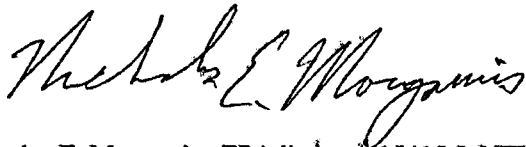
Mr. Joe Deatherage, P.E.
Senior Engineer
Wood Environment & Infrastructure Solutions, Inc.
2030 Falling Waters Rd., STE 300
Knoxville, TN 37922
Via email: Deatherage, Joe <joe.deatherage@woodplc.com>

Re: ABB Rochester - Former Taylor Instruments
WO No. & PO No.: 3031152028.11
Work site: 80 Ames St./215 Danforth St., Rochester, NY
Inspection Report for Sub-slab Depressurization System

For work completed October 23, 2018 per WO 3031152028.11

1. Conducted a visual inspection of the complete System (e.g., vent fan, piping, warning device, labeling on systems, etc.): **SATISFACTORY**
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: **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 occupant or owner seeking comments and observations regarding the operation of the System: **SATISFACTORY**

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



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

DRAFT PERIODIC REVIEW REPORT TEXT

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 3, 2019 (NYSDEC, 2019).

Executive Summary

The Site was the location of the former Taylor Instruments Facility that was operated from 1904 to 1993 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). As a successor company to CE, ABB continues to fulfill the obligations of the VCA. During 2018 the Site was sold to Gray Rock Rochester, LLC (Gray Rock) who is now responsible for the continued adherence to the Institutional and Engineering Controls (ICs/ECs) associated with the Site.

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).

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 by ABB 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.

The location of the remaining 14 monitoring wells and site boundaries are depicted in the Annual Progress Report (Wood, 2019).

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 as a precautionary measure to mitigate sub-slab vapor at the 80 Ames residence 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).

Complete results from the 2018 annual groundwater monitoring event are provided in the 2018 Annual Progress Report (Wood, 2019), to be submitted by Wood Environment & Infrastructure Solutions, Inc. (Wood) in March 2019.

According to ABB, no areas of noncompliance were noted, and no changes to the *Soil Management Plan* (MACTEC, 2005), the revised *Operations, Maintenance, and Monitoring* (OM&M) *Manual* (MACTEC, 2011), or frequency of PRR 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. The Annual Progress Report (Wood, 2019) depicts the current Site layout.

On June 8, 2015 a utility easement agreement was executed with Rochester Gas & Electric for a 75-foot easement on the north end of the Site. The easement as depicted in the easement agreement was provided in the 2015 PRR (Amec Foster Wheeler, 2016).

During 2018 the Site was sold by ABB, Inc. to Gray Rock Rochester, LLC, a New York limited liability company.

As documented by Wood in previous PRR submittals, site assessments conducted prior to Site remediation identified the following contaminants:

- Mercury and trichloroethylene (TCE) were the principal Site contaminants present in Site soils.
- VOCs were being released from the North and South TCE Source Areas to overburden 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 Final Engineering Report (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) that was 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 conducted by ABB, Inc. Six bedrock groundwater monitoring wells are sampled semi-annually and eight overburden groundwater monitoring wells are sampled annually for analysis of the six primary contaminants of concern remaining at the Site: tetrachloroethene (PCE); 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 8260C. Additionally, the groundwater samples are tested for the full suite of 8260C 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 by ABB 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 *2018 Annual Progress Report* (Wood, 2019), to be submitted by Wood in March 2019.

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 October 2018 semi-annual monitoring events, as well as future post-closure monitoring events, is provided in the revised OM&M Manual (MACTEC, 2011) supplemented by NYSDEC's approval in 2017 to sample overburden monitoring wells annually (NYSDEC, 2017). A summary of recent monitoring results, comparisons with remedial objectives, and conclusions and recommendations are provided in the *2018 Annual Progress Report* (Wood, 2019), to be submitted by Wood in March 2019. Wood has not found any 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 by wood during the 2018 reporting period included: two groundwater sampling events; yearly inspection of the SSD system at an off-site residential duplex; and the submittal of the 2018 Annual Progress Report (Wood, 2019) to NYSDEC. Wood has not found any deficiencies with the revised OM&M Manual (MACTEC, 2011). The yearly inspection of the SSD system at the off-site residential duplex located at 80 Ames Street/215 Danforth Street was

conducted on October 23, 2018 by the installation contractor, Mitigation Tech (National Environmental Health Association National Radon Proficiency Program ID certification #100722). The inspection report is included as Attachment B. The contractor, Mitigation Tech, concluded that the system continues to operate as designed. Therefore, the EC remains in full effect.

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 2018 Annual Progress Report (Wood, 2019). As indicated in that report, a comparison of analytical data from sampling events that occurred in 2001-2018 provides an evaluation of the Site remedial progress. Details of the overall conclusions and recommendations reached in the evaluation are provided in the 2018 Annual Progress Report (Wood, 2019), to be submitted by Wood in March 2019.

References

- Amec Foster Wheeler, 2016. *2015 Annual Progress Report and Remedial Progress Evaluation*, Former Taylor Instruments Site, Rochester, New York. Prepared for ABB, Inc. (February).
- Harding ESE, 2001. *Dual-Phase Vacuum Extraction Remediation System Operation and Maintenance Manual (OM&M)*, prepared for the former Taylor Instruments Site, 95 Ames Street in Rochester, New York (March).
- Harding Lawson Associates, 1999. *Final Investigative Report, Taylor Instruments Site, Rochester, New York*. Prepared for the New York State Department of Environmental Conservation (March).
- Harding Lawson Associates, 2000a. *Final Engineering Report, On-Site Storm Sewers, Former Taylor Instruments Site, Rochester, New York*. Prepared for Combustion Engineering (January).
- Harding Lawson Associates, 2000b. *Remedial Work Plan, Taylor Instruments Site, 95 Ames Street, Rochester, New York*. Prepared for Combustion Engineering (April).
- MACTEC, 2003. *Final Engineering Report, Former Taylor Instruments Site, Rochester, New York*. Prepared for Combustion Engineering (September).
- MACTEC, 2005. *Soil Management Plan, Former Taylor Instruments Facility, 95 Ames Street, Rochester, New York 14611*. Prepared for Combustion Engineering (April).
- MACTEC, 2010a. *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remedial Treatment System, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York*. Prepared for the New York State Department of Environmental Conservation (June 11).
- MACTEC, 2010b. *Construction Completion Report, Former Taylor Instruments Site, Monroe County, New York*. Prepared for the New York State Department of Environmental Conservation (December).
- 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, 2017. *Site Management (SM) Periodic Review Report (PRR) Response Letter, Former Taylor Instruments Facility, Rochester, Monroe County, Site No. V00144.* March 30.

NYSDEC, 2019. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal.* (January 3).

Wood, 2019. *2018 Annual Progress Report and Remedial Progress Evaluation, Former Taylor Instruments Site, Rochester, New York.* Prepared for ABB, Inc. (March).

Acronym List

2000 FER	<i>Final Engineering Report, On-Site Storm Sewers</i> (Harding Lawson Associates, 2000a)
2003 FER	<i>Final Engineering Report</i> (MACTEC, 2003)
3DMe*	3D Microemulsion*
AR-CNTS	Assignable Release and Covenant Not to Sue
CCR	<i>Construction Completion Report</i> (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
System	DPVE and bedrock groundwater extraction and treatment system
TCE	trichloroethene
VCA	Voluntary Cleanup Agreement
VOC	volatile organic compound
Wood	Wood Environment & Infrastructure Solutions, Inc.

Attachment A

NYSDEC-Approved Certification Form

Attachment B

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

ATTACHMENT 3

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



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: 14.500

Reporting Period: February 14, 2018 to February 14, 2019

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

Description of Institutional ControlsParcelOwnerInstitutional Control**120.410-1-2**

Gray Rock Rochester, LLC- Attn: Joe Verdi

Ground Water Use Restriction
Landuse Restriction

Soil Management Plan

- Ground Water Use Restriction
- Landuse Restriction
- Soil Management Plan
- Annual certification

120.42-1.4

Roderick Nelson, Jr.

Site Management Plan

Sub-slab depressurization system
Annual Certification**Description of Engineering Controls**ParcelEngineering Control**120.410-1-2**Vapor Mitigation
Cover System

- Cover System
- Vapor Mitigation (future buildings)

120.42-1.4

Vapor Mitigation

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 complete.

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

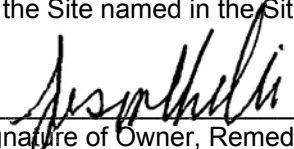
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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 Joseph Verdi at Gray Rock Rochester, LLC
print name print business address
14150 Route 31, Savannah, New York

am certifying as Owner (Owner or Remedial Party)

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


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

03/18/19
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.

Plumley Engineering, P.C.

I David K. Meixell, P.E. at 8232 Loop Road, Baldwinsville, New York,
print name print business address

am certifying as a Professional Engineer for the Gray Rock Rochester, LLC
(Owner or Remedial Party)

David Meixell

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



Stamp
(Required for PE)

03/18/19
Date