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REPORT ON
SEMIANNUAL PROGRESS REPORT #9
FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

by Haley & Aldrich, Inc.
Greenville, South Carolina

for Carpenter Technology Corporation
Reading, Pennsylvania

File No. 128752-006
October 2018

Haley & Aldrich, Inc.
400 Augusta Street
Suite 130
Greenville, SC 29601
864.214.8750

19 October 2018
File No. 128752-006

Georgia Environmental Protection Division
Response and Remediation Program; Release Notification Unit
2 Martin Luther King Jr. Drive, SE
Suite 1462 East
Atlanta, Georgia 30334

Attention: Michael Smilley

Subject: October 2018 Semiannual Progress Report #9
Former General Time Facility
100 Newton Bridge Road- Athens, Georgia
HSI Site Number 10355

Dear Mr. Smilley:

Carpenter Technology Corporation (CTC) was accepted into the Georgia Voluntary Remediation Program (VRP) in April 2014, HSI site number 10355. Consistent with the VRP, CTC has submitted Semiannual Progress Reports to the Georgia Environmental Protection Division (EPD) describing activities that have been conducted during the prior six months. This report is the ninth progress report being submitted since being accepted into the VRP.

As a condition of approval, the EPD requested that CTC conduct routine groundwater and surface water sampling events. The results of this sampling effort, provided in this report, continue to corroborate the conceptual site model (CSM), as well as document stable or contracting groundwater plume(s) on and off the property, no unacceptable off-site vapor intrusion risks, and no adverse effects to potential ecological or human receptors in the North Oconee River. As indicated in previous progress reports, CTC continues to evaluate Enhanced In-Situ Bioremediation (EISB) as a remediation technology to address affected groundwater beneath the former manufacturing building and has implemented an expanded pilot test to further evaluate the efficacy of EISB. A Class V Injection Permit Application has been submitted to expand the injection array to the west of MW-16I, to remediate a previously unknown area of impacts identified by the new owner while conducting their Brownfield investigation. Soil remediation is being conducted by the new owner through the Brownfields Program, while the underlying groundwater impacts will continue to be addressed by CTC under the VRP. Field activities associated with the pilot program are also summarized in this report.

If you have any questions or need additional information, please contact Sean McGowan at 610.334.2701 or Mark Miesfeldt at 864.214.8751.

Sincerely yours,
HALEY & ALDRICH, INC.

Mark Miesfeldt
Project Manager

Jeffrey A. Klaiber, P.E.
Principal Consultant
Georgia Registration No. PE019857

cc: Karen Crawford, Nelson Mullins
Len Diprima, United Consulting
Andrea Rimer, Troutman Sanders

PROFESSIONAL ENGINEER CERTIFICATION

I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Oct 19, 2018

Jeffrey A. Klaiber, P.E.
Principal Consultant
Georgia Registration No. PE019857

Date

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1. Introduction

The Site is located in an industrial park at 100 Newton Bridge Road, in Athens, Georgia as shown on Figure 1. The Site is approximately 35 acres with a 325,000-square foot former manufacturing building. Additional structures include outbuildings constructed of corrugated metal with concrete slab bases and a security building at the rear of the facility. The topography of the Site slopes gently from northwest to southeast.

The Former General Time facility was accepted into the Georgia Voluntary Remediation Program (VRP) in April 2014, HSI site number 10355. The property was accepted into the Georgia Brownfields Program on April 6, 2018, and ownership of the property transferred to the new owner, Westclox Rocks, LLC on July 23, 2018.

2. Activities Conducted During Previous Six Months

The following activities were conducted at the Site since the submittal of Semiannual Progress Report #8 in April 2018:

- Collected surface water and groundwater samples in August 2018. Surface water samples were collected from the North Oconee River. Groundwater samples were collected on and off the site to document current conditions and corroborate the Conceptual Site Model (CSM).

- Performance monitoring groundwater samples were collected from existing wells MP-3, MP-7, MP-8, MP-9, MP-10, MP-11, MP-12, MW-16I and MW-16D. Performance groundwater samples were collected in May and July 2018. Performance monitoring results are included in this Progress Report.

- In anticipation of approval of the Class V Injection Permit, baseline performance groundwater samples were collected in July 2018 from the same wells as above plus UCMW-2, located within an area of impacted soil beneath the building identified during due diligence performed by the new owner under the Brownfields Program. EPD approved Type 3 and 4 risk reduction standards for soil at the site on July 3, 2018, and the new owner currently intends to remediate these soils in this area through excavation before the end of the year. However, sampling in this area indicates a need for further injection to treat higher levels of groundwater impacts beneath this area. CTC has requested the rapid approval of the Class V Injection Permit by the EPD, so an injection event can be conducted prior to soil remediation activities scheduled for November 2018 under the Brownfields Program.

- CTC continues to evaluate Enhanced In-Situ Bioremediation (EISB) as a remediation technology to address affected groundwater beneath the former manufacturing building.

3. Groundwater Monitoring Activities

This section of the report includes a summary of the semiannual groundwater monitoring activities conducted during August 2018 as well as the corresponding analytical results, field parameters, water elevations and groundwater flow information. A Site map, which includes sampling locations, is provided as Figure 2.

Groundwater samples were collected between August 20th and August 23rd. In addition to the field indicator parameters (pH, temperature, specific conductivity, dissolved oxygen, oxidation reduction potential, and turbidity) the samples were analyzed in the laboratory for the site-specific Constituents of Concern (COCs). A summary of the analytical program is provided in Table I.

Consistent with the previous site-wide monitoring event, groundwater samples were collected from wells previously installed by CTC on and off the Site. Wells included in the previous sampling event were located, confirmed to be in good repair, and sampled. Analytical results are summarized in Table II and laboratory reports are provided in Appendix A.

During the sampling event the depth to groundwater was measured in each well. This information was used to construct potentiometric surface maps, calculate horizontal and vertical groundwater gradients, and assess groundwater flow direction and rate. Groundwater field sampling forms are provided in Appendix B.

3.1 SUMMARY OF GROUNDWATER FLOW

The depth to groundwater was measured in the monitoring wells both on- and off-Site during this sampling event. The water table elevations were subsequently calculated using the surveyed well casing elevations and the measured depth to groundwater. The data are presented in Appendix B.

The August 2018 groundwater elevations from intermediate wells were used to construct the potentiometric surface shown on Figure 3. The intermediate wells provide the greatest coverage and represent the interval where Site COC's have been detected on and off the property. Consistent with previous interpretations, the potentiometric surface shows the groundwater flow direction is east towards the North Oconee River. The average horizontal hydraulic gradient is approximately 0.011 feet/foot, also consistent with previous calculations. The estimated groundwater flow velocity, utilizing the average hydraulic conductivity of the intermediate zone of 5.2 feet/day and an effective porosity of 25 percent, is approximately 0.22 feet/day or 82 feet/year.

3.2 SUMMARY OF ESTIMATED VERTICAL GROUNDWATER GRADIENTS

Vertical groundwater gradients were calculated, where possible, using the August 2018 water elevation data. There is a low magnitude downward flow potential in the vicinity of the MW-2 well cluster, between MW-16I and MW-16D wells and between MW-9I and MW-9D wells. As expected, the MW-11 well cluster, adjacent to the North Oconee River, indicated a low magnitude upward vertical gradient. The MW-9 and MW-16 well cluster and between MW-11S and MW-11I wells indicated a reversal from the previous event. The calculated vertical gradients are provided in the table below.

Well Pair	Estimated Vertical Gradient*
MW-2S & MW-2I	-0.0161 feet/feet
MW-2I & MW-2D	-0.0426 feet/feet
MW-9I & MW-9D	-0.0175 feet/feet
MW-11S & MW-11I	0.0037 feet/feet
MW-11I & MW-11D	0.0017 feet/feet
MW-16I & MW-16D	-0.0078 feet/feet

Negative values indicate downward groundwater flow potential

* Results were calculated using the EPA's vertical gradient calculator

* The estimated vertical gradient was calculated at the mid-point of the screen

3.3 SUMMARY OF MONITORING RESULTS

As indicated in the approved VRP application, the only potentially completed exposure pathways to site COCs are vapor intrusion into indoor air on-site and discharge of affected groundwater to the North Oconee River off-site. As site redevelopment occurs, the new property owner is working with EPD through the Brownfields Program to evaluate the potential for vapor intrusion in on-site structures and incorporate mitigation measures into site redevelopment plans as needed. Potential vapor intrusion at off-site properties was evaluated using the Johnson & Ettinger (J&E) groundwater to indoor air model. These results were presented in the June 2015 Semiannual Progress Report. While EPD's calculated thresholds differed from those provided, EPD agrees that off-site groundwater concentrations are significantly lower than the values calculated using J&E regardless of sampling interval; therefore, the vapor intrusion risk at off-site downgradient properties is negligible. As a result, the only potentially completed exposure pathway to Site-related groundwater impact is discharge of groundwater to surface water at the North Oconee River, with subsequent exposure to the surface water by aquatic organisms. To date site COCs have not been detected in surface water. Distribution of TCE in groundwater is provided on Figures 4, 5 and 6.

Consistent with historical sampling results, provided in Appendix C, the highest VOC concentrations, primarily TCE and its degradation products, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC), continue to be detected in intermediate wells MW-2I and RW-3. Historically, the highest detection of TCE was observed at monitoring well MW-16I at a concentration of 25,100 µg/L. However, following the EISB pilot test in the vicinity of MW-16I TCE levels in this well fell to below detection. Significant findings from the August 2018 sampling event include:

- TCE continues to not be detected in monitoring well MW-16I.
- Within the EISB pilot treatment area the concentration of TCE daughter products exceeds the parent TCE concentrations, as expected. At well MW-16I, the concentrations of daughter products have been biologically degraded to below detections levels since July 2018 except for cis-1,2-DCE which was detected at a concentration of 24 µg/L. The reduction of daughter products indicates that biodegradation is occurring in the subsurface.
- Degradation of TCE and daughter products continue to be detected in the samples collected from the intermediate wells MW-2I and RW-3 located immediately downgradient of the former cistern and TCE spill area. Concentrations of TCE of 6,100 µg/L and 7,700 µg/L were detected in

MW-2I and RW-3, respectively. Given the observed reduction in mass under the building from the EISB pilot efforts, it would be expected that the TCE concentrations in groundwater downgradient in MW-2I and RW-3 would decline over time.

- TCE concentrations have remained stable or are decreasing in off-site monitoring locations. For example, TCE levels continue to be below detection in well MW-7I supporting the conclusion that the plume emanating from the site is disconnected from the groundwater impacts detected at the MW-11 cluster. Concentrations of TCE have remained consistent since the last sampling event in MW-6I from 290 ug/L in March 2018 to 280 ug/L in the most recent sampling event. While the concentrations of VOCs detected at this location vary between sampling events, the values measured during this sampling event fall within the historical ranges. Similarly, TCE concentrations have remained constant in MW-9I from 1,000 ug/L in 2016 to 680 ug/L in the most recent sampling event. The historical high concentration in MW-9I was 1,900 ug/L in 2007 and all subsequent results have been within the historical ranges. The concentration of MW-9I well below the final indoor exposure risk concentration of 7,980 ug/L, calculated by EPD.

- In the MW-11 well cluster, located on the western side of the North Oconee River, TCE was detected in well MW-11I at a concentration of 330 µg/L, while at MW-11S, TCE was detected at a concentration of 140 µg/L. TCE was not detected in MW-11D during the most recent sampling event. While the concentrations of VOCs detected at this location vary between sampling events, the values measured during this sampling event fall within the historical ranges.

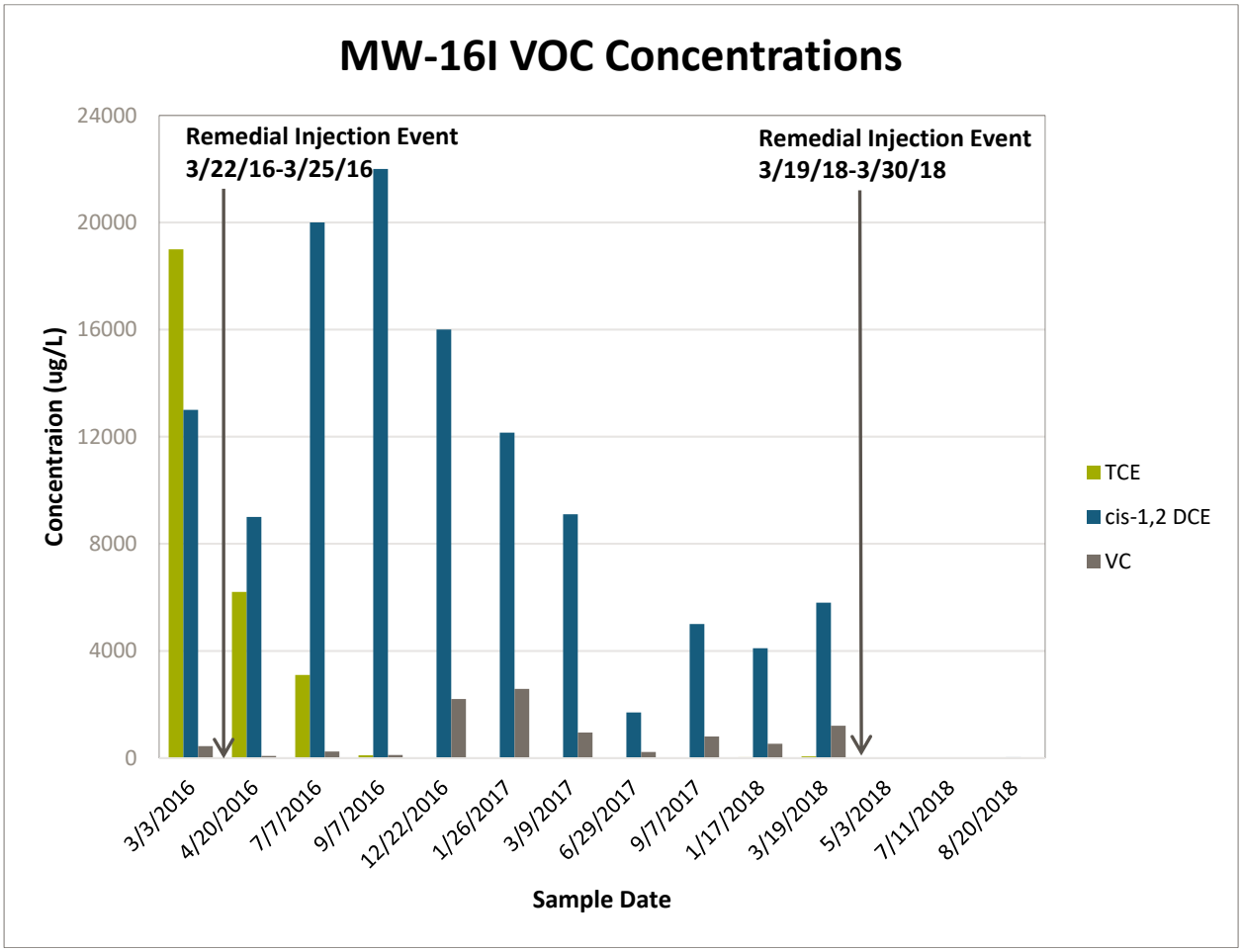
- Semiannual groundwater sampling data continues to indicate no adverse effects to human health or the environment from offsite groundwater.

3.4 REMEDIATION PROGRAM

As reported in the April 2018 semiannual progress report, CTC installed and expanded an injection array to evaluate the effectiveness of EISB to address the TCE groundwater hot-spot under the former manufacturing building in the vicinity of the MW-16 well pair. Nine monitoring wells (existing wells MP-3, MP-7, MP-8, MW-16I, and MW-16D, and new wells MP-9, MP-10, MP-11 and MP-12) were sampled in May and July 2018 after the March 2018 in-situ remedial injection event. In addition to the field indicator parameters (pH, temperature, specific conductance, dissolved oxygen (DO), oxidation/reduction potential (ORP), and turbidity), performance sampling included the site-specific COCs, sulfate, total organic carbon (TOC), and ferrous iron. The post-remediation groundwater quality data is summarized and presented in Table III. Significant findings from the injection activities are outlined below. Injection points and monitoring points are shown on Figure 7.

MW-16I:

The field parameters measured at MW-16I indicate that the remedial injection events have been successful in creating an environment to support biological reductive dechlorination and shows that the constituent levels have been significantly reduced. The initial concentration in groundwater from MW-16I was 19,000 ug/L in March 2016. TCE is currently not detected at this location. As expected, the production of daughter products initially increased but have since decreased to below detection limits except for cis-1,2-DCE. MW-16I shows a model degradation pathway from the sodium lactate injections.



MW-16D:

The field parameters measured at MW-16D, which was constructed with a well screen 20-feet below MW-16I, indicate that the remedial injection event continued to have little or no effect on MW-16D. Conductivity has remained constant with a stable concentration of dissolved oxygen of 1.41 mg/L and a redox potential which remains oxidative at +69 mV, and of pH at 5.86 s.u. Geochemical parameters also show no significant changes in concentrations which supports the hypothesis that the TCE source material is limited to the unsaturated zone and upper portion of the shallow aquifer.

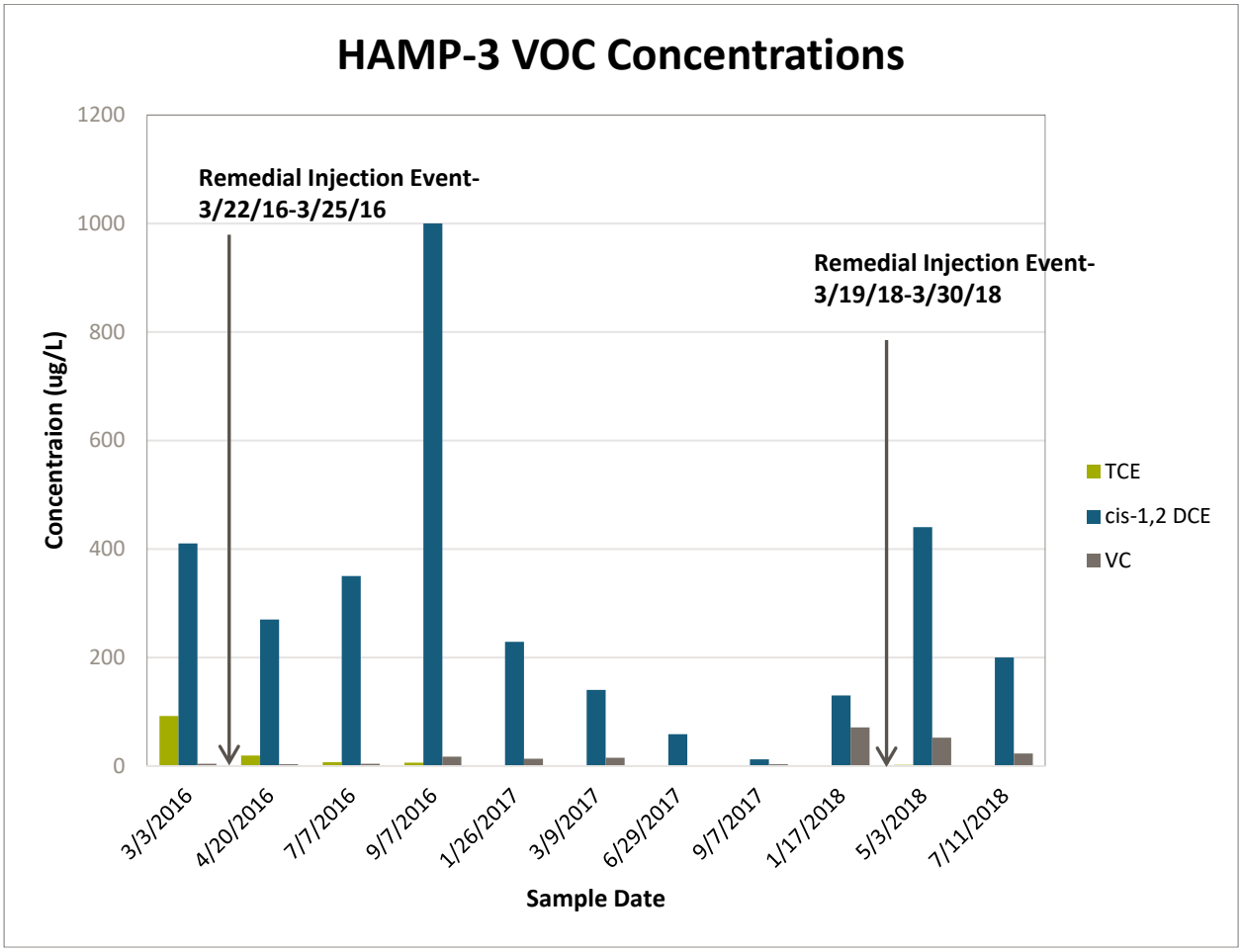
The VOC concentrations have also remained unchanged at 190 ug/L TCE and 77 ug/L cis-1,2-DCE. The remedial injection event was not designed or anticipated to affect MW-16D. Any potential changes in concentration are most likely attributed to unstimulated biodegradation and natural dilution and dispersion of the contaminants.

HAMP-3:

The field parameters measured at HAMP-3 indicate that the remedial injection events have been successful in creating a more conducive environment for biological reductive dechlorination and shows that groundwater in the vicinity of this well has been positively influenced by the remedial injection event. The redox potential continues to be reducing at -143 mV and the pH has remained within

acceptable biodegradation ranges at 7.69 s.u. Geochemical parameters indicate that the subsurface is reducing with sulfate concentrations below the laboratory detection limit of 5 mg/L. Complete degradation of TCE and daughter products is evident by the continued detections of ethene. Sulfate has remained below detection limits and the concentration of iron has increased since the March 2018 injections to 2.2 mg/L of ferrous iron. The ratio of ferrous iron to total iron indicates that the subsurface is strongly reducing and that enough iron exists to precipitate out any created sulfide in the subsurface.

The initial concentration of TCE in groundwater collected from HAMP-3 has declined from 92 ug/L in March 2016 to below detection limits. An increase in daughter products occurred in January 2018 but this was interpreted to be the result of upgradient contamination migrating into the treatment zone prompting another remedial injection round in March 2018. Since the injections in March 2018, daughter products have decreased.

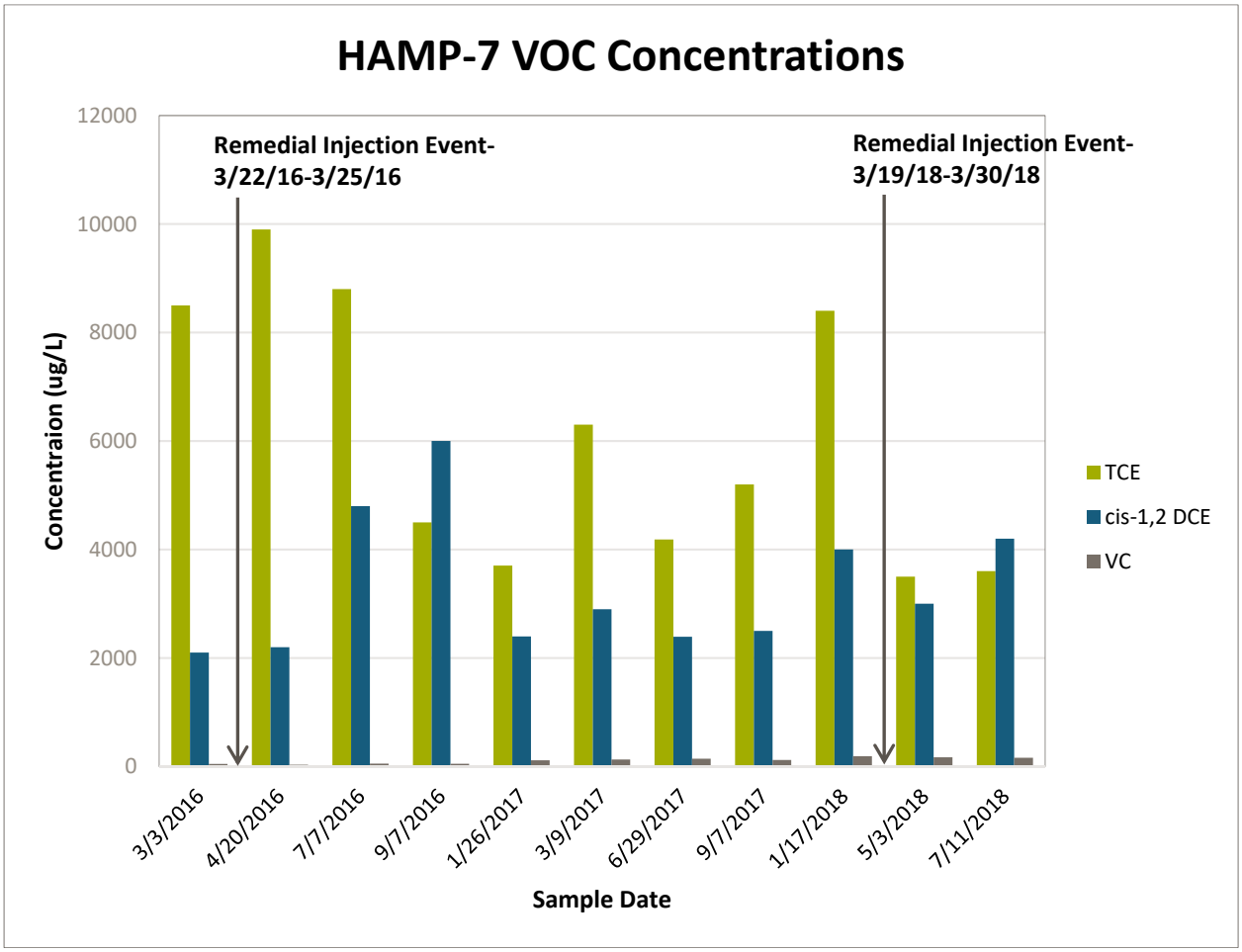


HAMP-7:

The field parameters measured at HAMP-7 indicate that the treatment zone has expanded into the area surrounding this monitoring point. The redox potential has become reducing at -74 mV, the pH has become more neutral at 6.56 s.u. and the dissolved oxygen concentration has remained low at 0.97 mg/L. Analytical results indicate the concentrations of TCE and daughter product are declining in response to the March 2018 remedial injection event and are following a similar pattern as observed

following the March 2016 remedial injection event. The recent remedial injection event appears to be more successful in reducing TCE and stimulating biodegradation. A greater response indicates that the bacteria capable of dechlorination are being stimulated by the electron donor and are becoming more active.

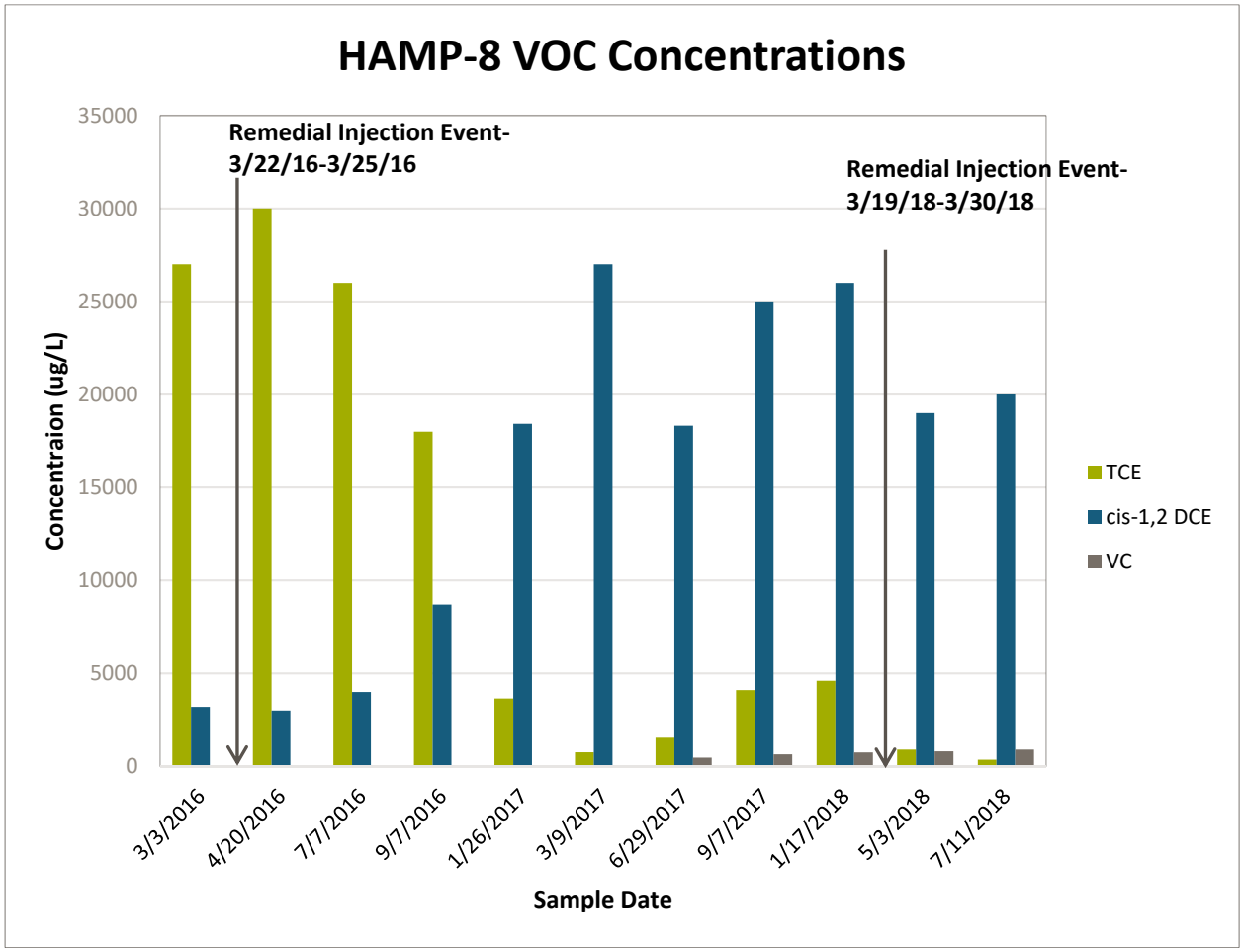
Sulfate has decreased since the March 2018 injections to 16.6 mg/L and the concentration of iron has increase to 32.8 mg/L. The ratio of ferrous iron to total iron indicates that the subsurface is strongly reducing and that enough iron exists to precipitate out any produced sulfide in the subsurface. In addition, TOC concentrations have increased from 12.5 mg/L in January 2018 to 37.4 mg/L in July 2018.



HAMP-8:

The field parameters and geochemical parameters measured at HAMP-8 indicate that groundwater in the vicinity of this monitoring point has been positively influenced from the remedial events. The redox potential is reducing at -35 mV, the pH is near neutral at 6.31 s.u., and dissolved oxygen was not present. The concentration of sulfate has decreased while the concentration of ferrous iron is increasing and currently measured at 33.7 mg/L. The ratio of ferrous to total iron indicates that the subsurface is reducing. In addition, the concentration of TOC has increased significantly from the March 2018 event from 38.3 mg/L TOC in January 2018 to 221 mg/L in July 2018.

Degradation is increasing at HAMP-8 with decreases in TCE of 92% from 4,600 ug/L in January 2018 to 360 ug/L in July 2018. The concentration of cis-1,2-DCE remains elevated, although the concentration is decreasing. Full conversion of TCE to ethene is seen at HAMP-8 and conditions appear favorable for the continued biodegradation of these compounds.



4. Conclusions

Data from the most recent sampling effort continues to document stable or contracting groundwater plume(s) on and off the property and no unacceptable off-site vapor intrusion risks.

The EISB pilot study confirms the efficacy of this remedial approach documenting the significant positive influence lactate injections have had on TCE in the area of MW-16I. A Class V Injection Permit Application has been submitted to expand the injection array to the west of MW-16I, upgradient of the pilot treatment area to remediate groundwater beneath a previously unknown area of impacted soil identified by the new owner while conducting a Brownfield investigation. In anticipation of approval of the Class V Injection Permit, baseline performance groundwater samples were collected in July 2018 from the current monitoring network plus UCMW-2. These results will be reported in the next semiannual progress report in April 2019. Impacted soil above approved nonresidential risk reduction standards is being addressed by the new owner through the Brownfields Program, and the underlying groundwater will continue to be addressed by CTC through the VRP. Site remediation activities being conducted in coordination by the parties are complimentary and should accelerate remediation timeframes and closure.

An updated milestone schedule, including semiannual groundwater and surface water sampling, is provided on Table IV. As required in the VRP guidance a monthly summary of hours invoiced and description of services provided since the last submittal is provided in Appendix D.

TABLES

TABLE I
GROUNDWATER MONITORING PARAMETERS
CARPENTER – FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

WELL ID	WELL TYPE	AUGUST 2018 ANALYTICAL PROGRAM
RW-1	Recovery Well	Water Level Only
RW-2	Recovery Well	Water Level Only
RW-3	Recovery Well	VOCs
RW-4	Recovery Well	VOCs
MW-1S	Shallow Overburden	VOCs
MW-1I	Intermediate Overburden	VOCs
MW-2S	Shallow Overburden	VOCs
MW-2I	Intermediate Overburden	VOCs
MW-2D	Deep Overburden	VOCs
MW-3I	Intermediate Overburden	VOCs
MW-5I	Intermediate Overburden	VOCs
MW-6I	Intermediate Overburden	VOCs
MW-7I	Intermediate Overburden	VOCs
MW-8I	Intermediate Overburden	VOCs
MW-9I	Intermediate Overburden	VOCs
MW-9D	Deep Overburden	VOCs
MW-11S	Shallow Overburden	VOCs
MW-11I	Intermediate Overburden	VOCs
MW-11D	Deep Overburden	VOCs
MW-16I	Shallow Overburden	VOCs + Injection COC's
MW-16D	Deep Overburden	VOCs
MP-3	Shallow Overburden	VOCs + Injection COC's
MP-7	Shallow Overburden	VOCs + Injection COC's
MP-8	Shallow Overburden	VOCs + Injection COC's
MP-9	Shallow Overburden	VOCs + Injection COC's
MP-10	Shallow Overburden	VOCs + Injection COC's
MP-11	Shallow Overburden	VOCs + Injection COC's
MP-12	Shallow Overburden	VOCs + Injection COC's

Notes:

- Volatile Organic Compounds (VOCs) include: Site Specific VOCs: trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichlrorethene, 1,1,2-trichloroethane, 1,1-dichloroethene, methylene chloride, and vinyl chloride
- Injection COC's: sulfate, total organic carbon (TOC), iron, ferrous iron, ethene, ethane and methane.
- Field Parameters include: water level, pH, turbidity, conductivity, dissolved oxygen, temperature and oxidation reduction potential.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-1I 12/21/2011	MW-1I 9/16/2015	MW-1I 9/9/2016	MW-1I 3/6/2017	MW-1I 9/6/2017	MW-1I 3/20/2018	MW-1I 8/20/2018
Field Parameters									
Conductivity		mS/cm	0.053	0.065	0.069	0.061	0.022	0.057	0.060
Dissolved Oxygen		mg/L	8.64	6.58	3.79	5.61	0.00	5.05	4.98
ORP		mV	142.90	204	183	198	230	197	161
pH		s.u.	6.25	6.58	5.84	5.83	5.60	6.32	6.27
Temperature		°C	18	19.44	28.76	19.87	20.53	18.38	26.97
Turbidity		NTU	1.4	2.0	1.5	0.0	0.0	0.0	0.0
General Chemistry (mg/L)									
Alkalinity, Total (as CaCO3)		mg/L	**23.8**	-	-	-	-	-	-
Nitrate		mg/L	**0.66**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.66**	-	-	-	-	-	-
Sulfate		mg/L	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	< 1	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)									
Acetic Acid		mg/L	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-
Dissolved Gases (ug/L)									
Ethane		ug/L	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-
Methane		ug/L	< 10	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)									
1,1,2-Trichloroethane	457	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-1S 12/21/2011	MW-1S 9/16/2015	MW-1S 3/6/2017	MW-1S 9/6/2017	MW-1S 3/20/2018	MW-1S 8/20/2018
Field Parameters								
Conductivity		mS/cm	0.036	0.042	0.028	0.032	0.023	0.047
Dissolved Oxygen		mg/L	8.32	0.86	1.08	2.24	3.19	2.02
ORP		mV	149	84	199	203	236	74
pH		s.u.	5.97	5.17	5.22	5.14	4.38	5.67
Temperature		°C	17.4	21.31	21.27	22.61	16.94	29.77
Turbidity		NTU	5.1	14.6	83.4	26.3	36.1	105
General Chemistry (mg/L)								
Alkalinity, Total (as CaCO3)		mg/L	**16.2**	-	-	-	-	-
Nitrate		mg/L	**0.56**	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.56**	-	-	-	-	-
Sulfate		mg/L	< 5	-	-	-	-	-
Sulfide		mg/L	< 0.1	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	< 1	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)								
Acetic Acid		mg/L	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-
Dissolved Gases (ug/L)								
Ethane		ug/L	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-
Methane		ug/L	< 10	-	-	-	-	-
Volatile Organic Compounds (ug/L)								
1,1,2-Trichloroethane	457	ug/L	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-2D 12/22/2011	MW-2D (DUP) 12/22/2011	MW-2D 2/21/2012	MW-2D 9/17/2015	MW-2D 9/8/2016	MW-2D 3/9/2017	MW-2D 9/8/2017	MW-2D 3/20/2018	MW-2D 8/21/2018
Field Parameters											
Conductivity		mS/cm	0.205	-	0.167	-	0.229	0.225	0.244	0.193	0.215
Dissolved Oxygen		mg/L	1.08	-	1.1	-	0.56	0.99	1.89	0.2	3.17
ORP		mV	-30.1	-	3.8	-	-53	-87	-10	-20	58
pH		s.u.	7.89	-	8.6	-	9.85	8.97	10.04	8.73	9.58
Temperature		°C	18.8	-	13.6	-	21.6	19.27	19.95	20.78	21.97
Turbidity		NTU	3.4	-	2.4	-	7.91	0.00	8.10	8.40	0.00
General Chemistry (mg/L)											
Alkalinity, Total (as CaCO3)		mg/L	**77.7**	**75.6**	**78.4**	-	-	-	-	-	-
Nitrate		mg/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Sulfate		mg/L	**24.9**	**23.8**	**22.1**	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**1.7**	**1.6**	**1.4**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)											
Acetic Acid		mg/L	-	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)											
Ethane		ug/L	-	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)											
1,1,2-Trichloroethane	457	ug/L	< 1	< 1	-	-	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 2	-	-	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	**1.1**	< 1	-	**4**	**2**	**2**	**5**	**3**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-2I 12/21/2011	MW-2I 2/20/2012	MW-2I 9/16/2015	MW-2I 9/7/2016	MW-2I 3/7/2017	MW-2I 9/6/2017	MW-2I 3/20/2018	MW-2I 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.064	0.068	0.087	0.105	0.096	0.032	0.087	0.088
Dissolved Oxygen		mg/L	2.54	1.5	4.11	0.29	1.25	1.31	0.32	4.47
ORP		mV	151.9	61.4	83	109	208	191	187	112
pH		s.u.	5.89	5.87	6.62	6.07	5.14	5.51	5.96	6.67
Temperature		°C	18.9	17.0	22.42	34.73	20.21	21.57	21.21	24.04
Turbidity		NTU	5.1	3.0	1.0	8.2	43.9	24.8	37.0	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**29.2**	**28.6**	-	-	-	-	-	-
Nitrate		mg/L	**1.5**	**0.44**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**1.5**	**0.44**	-	-	-	-	-	-
Sulfate		mg/L	< 5	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**1.8**	**2.2**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	**2.7**	-	< 10	< 10	< 20	< 20	< 20	**3**
1,1-Dichloroethene	13571	ug/L	**2.1**	-	-	< 10	< 20	< 20	< 20	**5**
cis-1,2-Dichloroethene	-	ug/L	**924**	**813**	**790**	**1600**	**1400**	**2000**	**1700**	**710**
Methylene chloride	328571	ug/L	< 2	-	< 40	< 40	< 20	< 80	< 20	< 1
trans-1,2-Dichloroethene	27143	ug/L	**24.1**	< 100	**12**	**25**	**23**	**34**	**30**	**13**
Trichloroethene	371	ug/L	**11500**	**9430**	**7800**	**12000**	**14000**	**17000**	**16000**	**6100**
Vinyl chloride	386	ug/L	**1.3**	< 100	< 10	< 10	< 20	< 20	< 20	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-2S 12/21/2011	MW-2S 2/20/2012	MW-2S 9/16/2015	MW-2S 9/7/2016	MW-2S 3/7/2017	MW-2S 9/6/2017	MW-2S 3/20/2018	MW-2S 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.06	0.84	0.109	0.125	0.116	0.13	0.145	0.117
Dissolved Oxygen		mg/L	6.86	4.00	3.41	0.67	3.35	1.78	2.33	2.11
ORP		mV	156	52.1	192	131	223	199	172	167
pH		s.u.	5.58	5.7	6.39	5.63	6.00	6.27	6.02	5.79
Temperature		°C	19	16.2	22.38	35.85	19.35	21.33	21.34	29.85
Turbidity		NTU	2.2	4.0	0.2	38.3	11.8	0.0	1.0	13.2
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**19.5**	**26.5**	-	-	-	-	-	-
Nitrate		mg/L	**0.43**	**1.6**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.43**	**1.6**	-	-	-	-	-	-
Sulfate		mg/L	**7.9**	**12**	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**3.7**	**2.7**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	**11.2**	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	**5**	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**1**	< 1	< 1	**74**	< 1	**1**	< 1	< 1
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**2.9**	< 1	< 1	**100**	< 1	**4**	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-3I 12/27/2011	MW-3I 9/17/2015	MW-3I 9/8/2016	MW-3I 3/8/2017	MW-3I 9/19/2017	MW-3I 3/21/2018	MW-3I 8/21/2018
Field Parameters									
Conductivity		mS/cm	0.092	0.101	0.099	0.111	0.078	0.114	0.102
Dissolved Oxygen		mg/L	3.34	4.69	2.81	3.32	0	2.45	2.16
ORP		mV	78.6	110	70	47	173	111	45
pH		s.u.	6.27	7.61	6.00	6.14	5.64	5.62	6.55
Temperature		°C	18.5	21.59	24.4	20.62	23.65	20.39	25.77
Turbidity		NTU	4.8	0.2	29.5	132	9.3	184	265
General Chemistry (mg/L)									
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)									
Acetic Acid		mg/L	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-
Dissolved Gases (ug/L)									
Ethane		ug/L	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)									
1,1,2-Trichloroethane	457	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-4I 12/22/2011
Field Parameters			
Conductivity		mS/cm	0.088
Dissolved Oxygen		mg/L	2.11
ORP		mV	19.5
pH		s.u.	6.21
Temperature		°C	17.4
Turbidity		NTU	6.3
General Chemistry (mg/L)			
Alkalinity, Total (as CaCO3)		mg/L	**41**
Nitrate		mg/L	**0.67**
Nitrite (as N)		mg/L	< 0.1
Nitrite/Nitrate Nitrogen		mg/L	**0.67**
Sulfate		mg/L	< 5
Sulfide		mg/L	< 0.1
Total Organic Carbon (TOC)		mg/L	**13.6**
Iron		mg/L	-
Iron, Ferrous		mg/L	-
Volatile Fatty Acids (mg/L)			
Acetic Acid		mg/L	**-**
Propionic Acid		mg/L	**-**
Pyruvic Acid		mg/L	**-**
Butyric Acid		mg/L	**-**
Lactic Acid		mg/L	**-**
Dissolved Gases (ug/L)			
Ethane		ug/L	-
Ethene		ug/L	-
Methane		ug/L	< 10
Volatile Organic Compounds (ug/L)			
1,1,2-Trichloroethane	457	ug/L	< 1
1,1-Dichloroethene	13571	ug/L	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1
Methylene chloride	328571	ug/L	< 2
trans-1,2-Dichloroethene	27143	ug/L	< 1
Trichloroethene	371	ug/L	**1.9**
Vinyl chloride	386	ug/L	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-5I 12/27/2011	MW-5I 2/21/2012	MW-5I 9/17/2015	MW-5I 9/12/2016	MW-5I 3/7/2017	MW-5I 9/18/2017	MW-5I 3/21/2018	MW-5I 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.101	0.098	0.109	0.101	0.116	0.080	0.090	0.102
Dissolved Oxygen		mg/L	5.5	1.79	1.87	2.2	2.15	0.00	1.58	2.17
ORP		mV	49.1	73.2	121	92	164	191	181	48
pH		s.u.	6.53	6.39	6.8	6.26	6.71	5.89	6.58	6.67
Temperature		°C	20.5	21.7	24.71	26.36	22.89	26.88	22.24	27.19
Turbidity		NTU	5.1	2.3	0.0	0.0	5.4	36.7	1.6	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**44.1**	**43.2**	-	-	-	-	-	-
Nitrate		mg/L	**0.84**	**0.84**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.84**	**0.84**	-	-	-	-	-	-
Sulfate		mg/L	< 5	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**1.5**	**1.6**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Propionic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Butyric Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Lactic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**2.8**	**2.2**	**3**	**3**	**3**	**3**	**3**	**3**
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**96.1**	< 1	**81**	**78**	**74**	**80**	**91**	**83**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-6I 12/19/2011	MW-6I 9/17/2015	MW-6I 9/9/2016	MW-6I 3/7/2017	MW-6I 9/19/2017	MW-6I 3/21/2018	MW-6I 8/22/2018
Field Parameters									
Conductivity		mS/cm	0.74	0.082	0.094	0.097	0.07	0.082	0.088
Dissolved Oxygen		mg/L	1.33	3.85	0.76	1.19	0.00	0.56	0.69
ORP		mV	209.1	114	200	190	222	205	165
pH		s.u.	5.64	6.82	5.59	5.78	5.00	5.70	5.64
Temperature		°C	19.3	23.84	24.21	20.54	23.29	19.69	26.28
Turbidity		NTU	7.9	0.0	9.8	57.1	48.9	28.6	9.7
General Chemistry (mg/L)									
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)									
Acetic Acid		mg/L	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-
Dissolved Gases (ug/L)									
Ethane		ug/L	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)									
1,1,2-Trichloroethane	457	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**70.6**	< 1	**49**	**41**	**40**	**30**	**27**
Methylene chloride	328571	ug/L	< 2	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**438**	**7**	**410**	**290**	**300**	**290**	**280**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-7I 12/27/2011	MW-7I 2/21/2012	MW-7I 9/17/2015	MW-7I 9/12/2016	MW-7I 3/7/2017	MW-7I 9/19/2017	MW-7I 3/21/2018	MW-7I 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.122	0.124	0.126	0.118	0.138	0.098	0.112	0.119
Dissolved Oxygen		mg/L	0.35	0.12	0.58	0.57	0.40	0.00	0.00	0.58
ORP		mV	45.9	21	129	67	128	147	163	118
pH		s.u.	6.2	6.19	6.46	6.15	6.59	5.70	6.45	6.44
Temperature		°C	18.8	19.3	23.43	26.54	19.22	23.2	20.34	26.69
Turbidity		NTU	5	0.9	0.0	0.0	3.2	0.31	1.4	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**57.8**	**46.4**	-	-	-	-	-	-
Nitrate		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Sulfate		mg/L	< 5	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**2.4**	**18.8**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	**206**	**135**	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**2.5**	**2.3**	**3**	**2**	**2**	**3**	**2**	**2**
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**2.3**	**1**	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	**5**	**3**	**3**	**3**	**3**	**2**

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-8I 12/27/2011	MW-8I 10/13/2014	MW-8I 9/17/2015	MW-8I 9/12/2016	MW-8I 3/7/2017	MW-8I 9/19/2017	MW-8I 3/21/2018	MW-8I 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.312	-	0.32	0.246	0.299	0.238	0.266	0.277
Dissolved Oxygen		mg/L	7.85	-	2.1	1.32	5.1	0.00	0.08	1.01
ORP		mV	149	-	193	155	198	224	186	150
pH		s.u.	5.46	-	5.85	5.47	6.1	5.28	5.96	6.1
Temperature		°C	16.2	-	25.8	28.83	18.68	25.55	17.23	30.7
Turbidity		NTU	4.2	-	2.5	0.0	16.9	19.5	3.3	0.0000
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 5	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 5	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-9D 12/21/2011	MW-9D 2/21/2012	MW-9D 9/17/2015	MW-9D 9/9/2016	MW-9D 3/7/2017	MW-9D 9/19/2017	MW-9D 3/21/2018	MW-9D 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.166	0.167	0.203	0.184	0.220	0.052	0.171	0.187
Dissolved Oxygen		mg/L	0.51	0.27	1.72	0.57	5.21	1.72	0.08	1.09
ORP		mV	-171	-115	51	-151	-47	-54	-103	-148
pH		s.u.	8.62	8.8	7.85	8.19	9.16	8.75	8.60	9.05
Temperature		°C	19.9	18.4	27.4	24.49	17.86	21.96	20.51	25.6
Turbidity		NTU	1.5	4.0	0.5	0.0	10.5	7.0	6.0	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**84.4**	**84.8**	-	-	-	-	-	-
Nitrate		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Sulfate		mg/L	**9.1**	**9.2**	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**2.2**	**2.7**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Propionic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Butyric Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Lactic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	**1.2**	**1.2**	< 1	**1**	**1**	< 1	**2**	**1**

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-9I 12/21/2011	MW-9I 2/21/2012	MW-9I 9/17/2015	MW-9I 9/9/2016	MW-9I 3/7/2017	MW-9I 9/19/2017	MW-9I 3/21/2018	MW-9I 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.122	0.129	0.137	0.169	0.147	0.124	0.176	0.143
Dissolved Oxygen		mg/L	0.35	0.39	2.59	0.32	3.19	0.00	1.14	2.72
ORP		mV	153.6	73.5	133	178	193	221	188	127
pH		s.u.	6.18	6.23	6.72	6.11	6.27	5.62	5.54	6.45
Temperature		°C	19.6	18.4	24.67	25.40	18.31	21.93	19.98	27.71
Turbidity		NTU	3.0	1.3	0.0	0.0	-	1.09	2.0	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**61.7**	**59.3**	-	-	-	-	-	-
Nitrate		mg/L	**0.48**	**0.48**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.48**	**0.48**	-	-	-	-	-	-
Sulfate		mg/L	< 5	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**2.4**	**3.2**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Propionic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Butyric Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Lactic Acid		mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	**7.3**	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 2	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	**1.2**	-	-	**2**	< 1	**3**	**2**	**1**
cis-1,2-Dichloroethene	-	ug/L	**113**	**91.9**	**34**	**87**	**62**	**89**	**76**	**54**
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 10	< 1	< 2	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**1110**	**1070**	**420**	**1000**	**630**	**930**	**1100**	**680**
Vinyl chloride	386	ug/L	< 1	< 10	< 1	< 2	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-11D 12/22/2011	MW-11D 2/20/2012	MW-11D 9/18/2015	MW-11D 9/8/2016	MW-11D 3/8/2017	MW-11D 9/7/2017	MW-11D 3/22/2018	MW-11D 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.98	0.87	0.288	0.678	0.859	0.792	0.689	0.649
Dissolved Oxygen		mg/L	0.69	-0.7	1.84	0.25	0.47	4.44	0	1.17
ORP		mV	-335	-286.9	-75	-369	-339	-296	-310	-329
pH		s.u.	7.03	7.3	6.99	7.7	6.89	8.34	7.58	7.47
Temperature		°C	16.7	15.7	18.12	19.2	14.93	15.96	15.22	19.22
Turbidity		NTU	5.1	4.8	2.4	0.0	3.3	0.0	0.0	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**441**	**376**	-	-	-	-	-	-
Nitrate		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Nitrite (as N)		mg/L	**1.5**	**0.77**	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	< 0.2	< 0.2	-	-	-	-	-	-
Sulfate		mg/L	**5.2**	**7.8**	-	-	-	-	-	-
Sulfide		mg/L	**57.8**	**4.6**	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**42.8**	**33.7**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	**28000**	**13000**	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**8**	**7.7**	< 1	**1**	**1**	**2**	< 1	< 1
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1	< 1	**3**	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-11I 12/20/2011	MW-11I 2/20/2012	MW-11I 9/18/2015	MW-11I 9/8/2016	MW-11I 3/8/2017	MW-11I 9/7/2017	MW-11I 3/22/2018	MW-11I 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.08	0.08	0.108	0.096	0.11	0.035	0.109	0.095
Dissolved Oxygen		mg/L	2.42	1.7	3.1	0.96	2.35	1.99	1.26	0.97
ORP		mV	154	136.4	220	246	204	218	186	173
pH		s.u.	5.82	5.96	5.82	5.41	6.13	8.45	6.25	6.07
Temperature		°C	16	15.3	18.74	19.45	16.61	17.18	16.48	22.33
Turbidity		NTU	4.3	2.4	2.4	0.0	-	0.0	0.0	0.0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**37.9**	**39.2**	-	-	-	-	-	-
Nitrate		mg/L	**0.88**	**0.96**	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.88**	**0.96**	-	-	-	-	-	-
Sulfate		mg/L	< 5	< 5	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**1.8**	**1.8**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**50**	**33.4**	**44**	**44**	**41**	**44**	**30**	**34**
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**766**	**540**	**490**	**510**	**340**	**370**	**290**	**330**
Vinyl chloride	386	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-11S 12/20/2011	MW-11S 2/20/2012	MW-11S 9/18/2015	MW-11S 9/8/2016	MW-11S 3/8/2017	MW-11S 9/7/2017	MW-11S 3/22/2018	MW-11S 8/22/2018
Field Parameters										
Conductivity		mS/cm	0.035	0.053	0.161	0.056	0.077	0.018	0.135	0.053
Dissolved Oxygen		mg/L	0.76	0.72	3.67	0.24	0.8	1.04	0.59	0.32
ORP		mV	187	80.5	261	330	147	192	173	159
pH		s.u.	5.25	5.19	4.56	4.26	5.24	4.32	4.91	5.23
Temperature		°C	16.3	13.6	19.83	23.84	16.93	18.27	15.24	22.53
Turbidity		NTU	4.7	4.6	37.5	20.6	-	3.0	0.0	11.6
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**6.5**	**9.5**	-	-	-	-	-	-
Nitrate		mg/L	**0.48**	< 0.2	-	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**0.48**	< 0.2	-	-	-	-	-	-
Sulfate		mg/L	< 5	**6.1**	-	-	-	-	-	-
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**2**	**2.9**	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**26.7**	**50.9**	**30**	**29**	**72**	**33**	**20**	**28**
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**356**	**183**	**260**	**280**	**150**	**220**	**24**	**140**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	**1**	**1**

Notes and Abbreviations:
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3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-14D 12/20/2011	MW-14I 12/20/2011
Field Parameters				
Conductivity		mS/cm	0.105	0.06
Dissolved Oxygen		mg/L	3.1	1.48
ORP		mV	154.9	85.1
pH		s.u.	6.28	6.13
Temperature		°C	16	15.4
Turbidity		NTU	0.9	5.7
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)		mg/L	**51.3**	**26**
Nitrate		mg/L	< 0.2	< 0.2
Nitrite (as N)		mg/L	< 0.1	< 0.1
Nitrite/Nitrate Nitrogen		mg/L	< 0.2	< 0.2
Sulfate		mg/L	< 5	< 5
Sulfide		mg/L	< 0.1	< 0.1
Total Organic Carbon (TOC)		mg/L	**1.5**	**1.5**
Iron		mg/L	-	-
Iron, Ferrous		mg/L	-	-
Volatile Fatty Acids (mg/L)				
Acetic Acid		mg/L	**-**	**-**
Propionic Acid		mg/L	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**
Butyric Acid		mg/L	**-**	**-**
Lactic Acid		mg/L	**-**	**-**
Dissolved Gases (ug/L)				
Ethane		ug/L	-	-
Ethene		ug/L	-	-
Methane		ug/L	< 10	**30**
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	457	ug/L	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1
Methylene chloride	328571	ug/L	< 2	< 2
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-16D 12/22/2011	MW-16D 2/22/2012	MW-16D (DUP) 2/22/2012	MW-16D 9/16/2015	MW-16D 3/3/2016	MW-16D 4/20/2016	MW-16D 7/7/2016	MW-16D 9/7/2016
Field Parameters										
Conductivity		mS/cm	0.088	0.105	-	0.112	0.112	0.109	0.114	0.103
Dissolved Oxygen		mg/L	3.51	1.97	-	2.55	1.93	1.15	1.78	1.59
ORP		mV	84	124.3	-	176	137	166	93	266
pH		s.u.	5.85	5.99	-	6.37	6.24	5.37	6.46	5.28
Temperature		°C	19.9	18.9	-	20.73	18.86	20.85	21.23	26.78
Turbidity		NTU	3.1	2.3	-	4.7	0.00	0.6	0.8	0
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**30.5**	-	-	-	-	-	-	-
Nitrate		mg/L	**1.1**	**1.2**	**1.2**	-	-	-	-	-
Nitrite (as N)		mg/L	< 0.1	< 0.1	< 0.1	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**1.1**	**1.2**	**1.2**	-	-	-	-	-
Sulfate		mg/L	**10.3**	-	-	-	**8.1**	**7.9**	**7.4**	**8.1**
Sulfide		mg/L	< 0.1	< 0.1	< 0.1	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**2.2**	**1.9**	**1.8**	-	< 1.0	1.2	< 1.0	1.0
Iron		mg/L	-	-	-	-	-	-	< 0.200	< 0.200
Iron, Ferrous		mg/L	-	-	-	-	< 0.05	**0.095**	**0.088**	< 0.050
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	< 5.0	-	-
Propionic Acid		mg/L	-	-	-	-	-	< 5.0	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	< 5.0	-	-
Butyric Acid		mg/L	-	-	-	-	-	< 5.0	-	-
Lactic Acid		mg/L	-	-	-	-	-	< 10	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	< 10	< 6.6	< 6.6	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	-	< 1	< 1.0	< 1.0	< 1.0	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	-	-	-	-	< 1
cis-1,2-Dichloroethene	-	ug/L	**34.2**	**28.8**	**28.2**	**36**	**37.0**	**35.0**	**38.0**	**43**
Methylene chloride	328571	ug/L	< 2	-	-	< 4	< 4.0	< 4.0	< 4.0	< 4
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 1
Trichloroethene	371	ug/L	**114**	**95.9**	**90.4**	**110**	**110**	**120**	**110**	**110**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-16D 1/26/2017	MW-16D 3/9/2017	MW-16D 6/29/2017	MW-16D 9/7/2017	MW-16D 1/17/2018	MW-16D 3/19/2018	MW-16D 5/3/2018	MW-16D 7/11/2018	MW-16D 8/20/2018
Field Parameters											
Conductivity		mS/cm	0.118	0.115	0.142	0.037	0.094	0.135	0.179	0.131	0.148
Dissolved Oxygen		mg/L	2.41	2.59	2.87	1.51	0.00	4.92	0.71	1.57	1.41
ORP		mV	95	229	-38	193	105	193	20	58	69
pH		s.u.	5.98	5.29	6.31	5.4	5.95	5.75	6.3	6.14	5.86
Temperature		°C	19.73	17.07	22.52	21.53	19.01	20.66	20.24	22.2	22.98
Turbidity		NTU	0.3	-	3.2	0	0.1	7.4	25.1	0.92	0.0
General Chemistry (mg/L)											
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	**7.2**	-	**8**	**8.3**	-	**8.5**	**8.5**	-
Sulfide		mg/L	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	< 1.0	-	< 1.0	< 1.0	-	**1.1**	< 1.0	-
Iron		mg/L	-	< 0.200	-	< 0.200	< 0.200	-	**2.09**	**1.22**	-
Iron, Ferrous		mg/L	-	< 0.050	-	< 0.050	< 0.050	-	**2.2**	**0.87**	-
Volatile Fatty Acids (mg/L)											
Acetic Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Dissolved Gases (ug/L)											
Ethane		ug/L	-	< 5.0	-	< 5.0	< 5.0	-	< 5.0	< 5.0	-
Ethene		ug/L	-	< 5.0	-	< 5.0	< 5.0	-	< 5.0	< 5.0	-
Methane		ug/L	-	< 5.0	-	< 5.0	< 5.0	-	**540**	**16**	-
Volatile Organic Compounds (ug/L)											
1,1,2-Trichloroethane	457	ug/L	-	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	-	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**49.9**	**50**	**45.3**	**72**	**80**	**63**	**75**	**78**	**77**
Methylene chloride	328571	ug/L	-	< 4	-	< 4	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	-	< 1	-	**1**	**1**	**1**	**1**	**2**	**2**
Trichloroethene	371	ug/L	**126.2**	**130**	**123**	**180**	**210**	**170**	**170**	**200**	**190**
Vinyl chloride	386	ug/L	< 5.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-16I 12/22/2011	MW-16I 2/22/2012	MW-16I 9/16/2015	MW-16I 3/3/2016	MW-16I 4/20/2016	MW-16I 7/7/2016	MW-16I 9/7/2016	MW-16I 12/22/2016
Field Parameters										
Conductivity		mS/cm	0.498	0.649	0.626	0.771	24.9	7.5	5.19	2.97
Dissolved Oxygen		mg/L	1.68	1.12	1.38	0.00	0.00	0.19	0.6	1.54
ORP		mV	125.4	162.4	-21	-13	-155	-128	-118	-73
pH		s.u.	5.32	5.42	6.31	6.37	7.04	6.95	6.15	6.4
Temperature		°C	20.2	19.3	21.33	19.49	20.72	21.05	23.84	20.37
Turbidity		NTU	5.2	1.9	8.7	32.6	488	58.1	41.3	20.6
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	**25.2**	-	-	-	-	-	-	-
Nitrate		mg/L	**5.9**	**5.8**	-	-	-	-	-	-
Nitrite (as N)		mg/L	**0.24**	**0.18**	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	**6.2**	**6**	-	-	-	-	-	-
Sulfate		mg/L	**166**	-	-	**209**	**50**	< 5.0	< 5.0	< 5.0
Sulfide		mg/L	< 0.1	< 0.1	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	**11.3**	**12**	-	**6.2**	**15200**	**2900**	**3020**	**746**
Iron		mg/L	-	-	-	-	-	**75.7**	**107**	**50.3**
Iron, Ferrous		mg/L	-	-	-	**2.5**	**63.8**	**78.9**	**122**	**55.1**
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	< 500	**1900**	**2000**	**730**
Propionic Acid		mg/L	-	-	-	-	< 500	**2200**	**2200**	**440**
Pyruvic Acid		mg/L	-	-	-	-	< 500	< 25	< 50	< 10
Butyric Acid		mg/L	-	-	-	-	< 500	**33**	**360**	**350**
Lactic Acid		mg/L	-	-	-	-	**37000**	**2200**	**120**	< 20
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	**27.7**	**35.8**	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	**9.1**	-	< 20	< 20	< 10	< 20	< 1	< 10
1,1-Dichloroethene	13571	ug/L	**3.2**	-	-	-	-	-	**12**	**14**
cis-1,2-Dichloroethene	-	ug/L	**7360**	**10600**	**15000**	**13000**	**9000**	**20000**	**22000**	**16000**
Methylene chloride	328571	ug/L	**5.2**	-	< 80	< 80	< 40	< 80	< 4	< 40
trans-1,2-Dichloroethene	27143	ug/L	**126**	< 100	**48**	**37**	**190**	**360**	**250**	**560**
Trichloroethene	371	ug/L	**17800**	**19700**	**13000**	**19000**	**6200**	**3100**	**97**	< 10
Vinyl chloride	386	ug/L	**109**	**164**	**570**	**440**	**75**	**240**	**110**	**2200**

Notes and Abbreviations:
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3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	MW-16I 1/26/2017	MW-16I 3/9/2017	MW-16I 6/29/2017	MW-16I 9/7/2017	MW-16I 1/17/2018	MW-16I 3/19/2018	MW-16I 5/3/2018	MW-16I 7/11/2018	MW-16I 8/20/2018
Field Parameters											
Conductivity		mS/cm	2.33	2.06	1.58	1.29	1.78	1.08	21.8	17.8	14.7
Dissolved Oxygen		mg/L	1.72	0.45	5.07	1.03	1.43	0.00	0.18	0.00	0.72
ORP		mV	-139	-134	-104	-121	-53	-66	-209	-61	-83
pH		s.u.	6.24	6.46	7.06	7.13	6.08	6.32	7.1	6.46	6.6
Temperature		°C	19.78	17.31	22.24	20.77	19.75	21.17	19.87	19.69	25.51
Turbidity		NTU	68.2	1.68	77.6	16.0	5.5	19.8	42.9	74.6	78.5
General Chemistry (mg/L)											
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	< 5.0	-	**8.8**	**10.8**	-	**35.3**	**11.4**	-
Sulfide		mg/L	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	**384**	-	**93.4**	**73.2**	-	**8950**	**7100**	-
Iron		mg/L	-	**35.8**	-	**16.5**	**14.7**	-	**673**	**203**	-
Iron, Ferrous		mg/L	-	**36.4**	-	**17.7**	**13.8**	-	**624**	**185**	-
Volatile Fatty Acids (mg/L)											
Acetic Acid		mg/L	-	**420**	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	**170**	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	< 5.0	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	**120**	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	< 10.0	-	-	-	-	-	-	-
Dissolved Gases (ug/L)											
Ethane		ug/L	-	**6.5**	-	**5.6**	< 5.0	-	< 5.0	16	-
Ethene		ug/L	-	**3200**	-	**3000**	**4500**	-	**110**	**250**	-
Methane		ug/L	-	**2000**	-	**4700**	**4900**	-	**180**	**2400**	-
Volatile Organic Compounds (ug/L)											
1,1,2-Trichloroethane	457	ug/L	-	< 20	-	< 5	< 10	< 10	< 1	< 10	< 20
1,1-Dichloroethene	13571	ug/L	-	< 20	-	**7**	< 10	10	< 1	< 10	< 20
cis-1,2-Dichloroethene	-	ug/L	**12151.5**	**9100**	**1696.8**	**5000**	**4100**	**5800**	**23**	**20**	**24**
Methylene chloride	328571	ug/L	-	< 80	-	< 20	< 10	< 10	< 1	< 10	< 20
trans-1,2-Dichloroethene	27143	ug/L	-	**270**	-	**88**	**90**	**120**	< 1	< 10	< 20
Trichloroethene	371	ug/L	<1000	< 20	< 200	**9**	**29**	**59**	< 1	< 10	< 20
Vinyl chloride	386	ug/L	**2581.1**	**950**	**219.3**	**800**	**530**	**1200**	**16**	< 10	< 20

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	RW-1 12/19/2011	RW-1 2/21/2012
Field Parameters				
Conductivity		mS/cm	0.04	0.15
Dissolved Oxygen		mg/L	0.38	0.2
ORP		mV	162.8	3.8
pH		s.u.	5.31	5.95
Temperature		°C	19.8	19.2
Turbidity		NTU	-0.2	2.1
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)		mg/L	-	-
Nitrate		mg/L	-	-
Nitrite (as N)		mg/L	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-
Sulfate		mg/L	-	-
Sulfide		mg/L	-	-
Total Organic Carbon (TOC)		mg/L	-	-
Iron		mg/L	-	-
Iron, Ferrous		mg/L	-	-
Volatile Fatty Acids (mg/L)				
Acetic Acid		mg/L	**-**	**-**
Propionic Acid		mg/L	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**
Butyric Acid		mg/L	**-**	**-**
Lactic Acid		mg/L	**-**	**-**
Dissolved Gases (ug/L)				
Ethane		ug/L	-	-
Ethene		ug/L	-	-
Methane		ug/L	-	-
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	457	ug/L	< 1	-
1,1-Dichloroethene	13571	ug/L	< 1	-
cis-1,2-Dichloroethene	-	ug/L	**404**	**784**
Methylene chloride	328571	ug/L	< 2	-
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 5
Trichloroethene	371	ug/L	**987**	**2390**
Vinyl chloride	386	ug/L	**9.6**	**35.3**

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	RW-2 12/19/2011	RW-2 2/22/2012
Field Parameters				
Conductivity		mS/cm	0.07	0.72
Dissolved Oxygen		mg/L	3.83	2.45
ORP		mV	152.9	108.4
pH		s.u.	6.13	6.15
Temperature		°C	19.6	18.2
Turbidity		NTU	11.5	1.5
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)		mg/L	-	-
Nitrate		mg/L	-	-
Nitrite (as N)		mg/L	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-
Sulfate		mg/L	-	-
Sulfide		mg/L	-	-
Total Organic Carbon (TOC)		mg/L	-	-
Iron		mg/L	-	-
Iron, Ferrous		mg/L	-	-
Volatile Fatty Acids (mg/L)				
Acetic Acid		mg/L	-	-
Propionic Acid		mg/L	-	-
Pyruvic Acid		mg/L	-	-
Butyric Acid		mg/L	-	-
Lactic Acid		mg/L	-	-
Dissolved Gases (ug/L)				
Ethane		ug/L	-	-
Ethene		ug/L	-	-
Methane		ug/L	-	-
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	457	ug/L	< 1	-
1,1-Dichloroethene	13571	ug/L	< 1	-
cis-1,2-Dichloroethene	-	ug/L	**3**	**2.6**
Methylene chloride	328571	ug/L	< 2	-
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1
Trichloroethene	371	ug/L	**39.8**	**38.9**
Vinyl chloride	386	ug/L	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	RW-3 12/19/2011	RW-3 2/22/2012	RW-3 9/16/2015	RW-3 9/8/2016	RW-3 3/9/2017	RW-3 9/8/2017	RW-3 3/20/2018	RW-3 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.131	0.146	0.282	0.205	0.173	0.185	0.168	0.168
Dissolved Oxygen		mg/L	0.43	0.64	1.43	0.53	0.77	2.19	0.41	1.41
ORP		mV	102.2	67.6	30	84	66	169	115	143
pH		s.u.	8.95	9.5	7.95	6.54	6.67	5.87	6.39	6.58
Temperature		°C	19.8	17.9	21.68	23.73	21.54	20.57	21.97	24.09
Turbidity		NTU	5.1	4	0.5	57.2	18.4	28.7	15.7	47.3
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	**4.5**	-	< 20	< 20	< 10	< 10	< 10	**2**
1,1-Dichloroethene	13571	ug/L	**6.5**	-	-	**39**	**21**	**26**	**24**	**21**
cis-1,2-Dichloroethene	-	ug/L	**678**	**768**	**770**	**900**	**740**	**750**	**780**	**710**
Methylene chloride	328571	ug/L	**23.6**	-	< 80	< 80	< 40	< 40	< 10	**2**
trans-1,2-Dichloroethene	27143	ug/L	**29.2**	< 100	**33**	**51**	**40**	**40**	**42**	**43**
Trichloroethene	371	ug/L	**13100**	**16300**	**13000**	**13000**	**9000**	**7900**	**8300**	**7700**
Vinyl chloride	386	ug/L	**2.1**	< 100	< 20	< 20	< 10	< 10	< 10	**2**

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	RW-4 12/19/2011	RW-4 2/22/2012	RW-4 9/16/2015	RW-4 9/8/2016	RW-4 3/9/2017	RW-4 9/8/2017	RW-4 3/20/2018	RW-4 8/21/2018
Field Parameters										
Conductivity		mS/cm	0.08	0.087	0.111	0.094	0.087	0.095	0.088	0.077
Dissolved Oxygen		mg/L	2.99	2.6	3.6	3.52	5.25	3.9	3.48	4.84
ORP		mV	144.2	109.5	193	125	150	145	158	145
pH		s.u.	6.54	6.66	7.09	6.26	5.97	7.04	5.9	5.96
Temperature		°C	19.8	17.2	20.52	22.73	18.99	20.04	21.3	21.39
Turbidity		NTU	5.8	4.6	3.7	243	1.18	3.47	51.1	211
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	-	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 2	-	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	**11.8**	**7.6**	**8**	**5**	**6**	**7**	**3**	**2**
Vinyl chloride	386	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
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2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	S-2 12/27/2011	S-5 12/27/2011
Field Parameters				
Conductivity		mS/cm	-	-
Dissolved Oxygen		mg/L	-	-
ORP		mV	-	-
pH		s.u.	-	-
Temperature		°C	-	-
Turbidity		NTU	-	-
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)		mg/L	-	-
Nitrate		mg/L	-	-
Nitrite (as N)		mg/L	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-
Sulfate		mg/L	-	-
Sulfide		mg/L	-	-
Total Organic Carbon (TOC)		mg/L	-	-
Iron		mg/L	-	-
Iron, Ferrous		mg/L	-	-
Volatile Fatty Acids (mg/L)				
Acetic Acid		mg/L	**-**	**-**
Propionic Acid		mg/L	**-**	**-**
Pyruvic Acid		mg/L	**-**	**-**
Butyric Acid		mg/L	**-**	**-**
Lactic Acid		mg/L	**-**	**-**
Dissolved Gases (ug/L)				
Ethane		ug/L	-	-
Ethene		ug/L	-	-
Methane		ug/L	-	-
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	457	ug/L	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	**1.7**	< 1
Methylene chloride	328571	ug/L	< 2	< 2
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 1
Trichloroethene	371	ug/L	**13.1**	< 1
Vinyl chloride	386	ug/L	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	SW-1 9/23/2013	SW-1 10/13/2014	SW-1 9/18/2015	SW-1 10/19/2016	SW-1 3/8/2017	SW-1 9/7/2017	SW-1 3/22/2018	SW-1 8/22/2018
Field Parameters										
Conductivity		mS/cm	-	-	0.106	0.126	0.092	0.099	0.065	0.084
Dissolved Oxygen		mg/L	-	-	6.50	20.38	12.77	8.99	8.46	11.74
ORP		mV	-	-	-44	144	174	-129	-190	-78
pH		s.u.	-	-	7.44	6.62	5.74	8.66	8.58	7.59
Temperature		°C	-	-	18.66	20.49	16.42	18.65	12.5	24.84
Turbidity		NTU	-	-	7.5	11.7	28.2	17.5	5.8	54.2
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 5	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 5	< 5	< 4	< 4	< 4	< 4	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	SW-2 9/23/2013	SW-2 10/13/2014	SW-2 9/18/2015	SW-2 10/19/2016	SW-2 3/10/2017	SW-2 9/19/2017	SW-2 3/22/2018	SW-2 8/22/2018
Field Parameters										
Conductivity		mS/cm	-	-	0.105	0.114	0.090	0.105	0.084	0.089
Dissolved Oxygen		mg/L	-	-	6.86	12.61	9.00	7.00	5.58	6.43
ORP		mV	-	-	58	179	146	160	97	30
pH		s.u.	-	-	7.49	6.42	6.31	6.72	7.71	6.71
Temperature		°C	-	-	19.92	23.29	13.00	27.05	12.37	27.04
Turbidity		NTU	-	-	19.1	21.4	282	26.2	14.6	412
General Chemistry (mg/L)										
Alkalinity, Total (as CaCO3)		mg/L	-	-	-	-	-	-	-	-
Nitrate		mg/L	-	-	-	-	-	-	-	-
Nitrite (as N)		mg/L	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-	-	-	-	-	-
Sulfate		mg/L	-	-	-	-	-	-	-	-
Sulfide		mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	-	-	-	-	-	-
Iron		mg/L	-	-	-	-	-	-	-	-
Iron, Ferrous		mg/L	-	-	-	-	-	-	-	-
Volatile Fatty Acids (mg/L)										
Acetic Acid		mg/L	-	-	-	-	-	-	-	-
Propionic Acid		mg/L	-	-	-	-	-	-	-	-
Pyruvic Acid		mg/L	-	-	-	-	-	-	-	-
Butyric Acid		mg/L	-	-	-	-	-	-	-	-
Lactic Acid		mg/L	-	-	-	-	-	-	-	-
Dissolved Gases (ug/L)										
Ethane		ug/L	-	-	-	-	-	-	-	-
Ethene		ug/L	-	-	-	-	-	-	-	-
Methane		ug/L	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)										
1,1,2-Trichloroethane	457	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	13571	ug/L	< 1	< 5	-	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	-	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	328571	ug/L	< 5	< 5	< 4	< 4	< 4	< 1	< 1	< 1
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	371	ug/L	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	386	ug/L	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE II
GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name / Sample Date	Risk Reduction Standards - Target Groundwater Concentrations (ug/L)	Units	UCMW-1 3/21/2018	UCMW-2 3/21/2018	UCMW-2 7/11/2018
Field Parameters					
Conductivity		mS/cm	0.071	0.984	0.954
Dissolved Oxygen		mg/L	2.72	0.00	0.67
ORP		mV	216	264	311
pH		s.u.	6.11	5.11	5.08
Temperature		°C	21.48	21.35	21.79
Turbidity		NTU	20.8	23.4	21.0
General Chemistry (mg/L)					
Alkalinity, Total (as CaCO3)		mg/L	-	-	-
Nitrate		mg/L	-	-	-
Nitrite (as N)		mg/L	-	-	-
Nitrite/Nitrate Nitrogen		mg/L	-	-	-
Sulfate		mg/L	-	-	**342**
Sulfide		mg/L	-	-	-
Total Organic Carbon (TOC)		mg/L	-	-	**13.6**
Iron		mg/L	-	-	**0.425**
Iron, Ferrous		mg/L	-	-	**0.3**
Volatile Fatty Acids (mg/L)					
Acetic Acid		mg/L	-	-	-
Propionic Acid		mg/L	-	-	-
Pyruvic Acid		mg/L	-	-	-
Butyric Acid		mg/L	-	-	-
Lactic Acid		mg/L	-	-	-
Dissolved Gases (ug/L)					
Ethane		ug/L	-	-	< 5.0
Ethene		ug/L	-	-	< 5.0
Methane		ug/L	-	-	**49**
Volatile Organic Compounds (ug/L)					
1,1,2-Trichloroethane	457	ug/L	< 1	< 100	< 100
1,1-Dichloroethene	13571	ug/L	< 1	**140**	**110**
cis-1,2-Dichloroethene	-	ug/L	**13**	**3100**	**3300**
Methylene chloride	328571	ug/L	< 1	**150**	**150**
trans-1,2-Dichloroethene	27143	ug/L	< 1	< 100	< 100
Trichloroethene	371	ug/L	**890**	**100000**	**110000**
Vinyl chloride	386	ug/L	< 1	< 100	< 100

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D
Sample Date		3/3/2016	4/20/2016	7/7/2016	9/7/2016	1/26/2017	3/9/2017
Field Parameters	Units						
Conductivity	mS/cm	0.112	0.109	0.114	0.103	0.118	0.115
Dissolved Oxygen	mg/L	1.93	1.15	1.78	1.59	2.41	2.59
ORP	mV	137	166	93	266	95	229
pH	s.u.	6.24	5.37	6.46	5.28	5.98	5.29
Temperature	°C	18.86	20.85	21.23	26.78	19.73	17.07
Turbidity	NTU	0.00	0.6	0.8	0	0.3	-
General Chemistry (mg/L)							
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-
Sulfate	mg/L	**8.1**	**7.9**	**7.4**	**8.1**	-	**7.2**
Sulfide	mg/L	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	< 1.0	1.2	< 1.0	1.0	-	< 1.0
Iron	mg/L	-	-	< 0.200	< 0.200	-	< 0.200
Iron, Ferrous	mg/L	< 0.05	**0.095**	**0.088**	< 0.050	-	< 0.050
Volatile Fatty Acids (mg/L)							
Acetic Acid	mg/L	-	< 5.0	-	-	-	< 5.0
Propionic Acid	mg/L	-	< 5.0	-	-	-	< 5.0
Pyruvic Acid	mg/L	-	< 5.0	-	-	-	< 5.0
Butyric Acid	mg/L	-	< 5.0	-	-	-	< 5.0
Lactic Acid	mg/L	-	< 10	-	-	-	< 5.0
Dissolved Gases (ug/L)							
Ethane	ug/L	-	-	-	-	-	< 5.0
Ethene	ug/L	-	-	-	-	-	< 5.0
Methane	ug/L	-	-	-	-	-	< 5.0
Volatile Organic Compounds (ug/L)							
1,1,2-Trichloroethane	ug/L	< 1.0	< 1.0	< 1.0	< 1	-	< 1
1,1-Dichloroethene	ug/L	-	-	-	< 1	-	< 1
cis-1,2-Dichloroethene	ug/L	**37.0**	**35.0**	**38.0**	**43**	**49.9**	**50**
Methylene chloride	ug/L	< 4.0	< 4.0	< 4.0	< 4	-	< 4
trans-1,2-Dichloroethene	ug/L	< 1.0	< 1.0	< 1.0	< 1	-	< 1
Trichloroethene	ug/L	**110**	**120**	**110**	**110**	**126.2**	**130**
Vinyl chloride	ug/L	< 1.0	< 1.0	< 1.0	< 1	< 5.0	< 1

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D
Sample Date		6/29/2017	9/7/2017	1/17/2018	3/19/2018	5/3/2018	7/11/2018	8/20/2018
Field Parameters	Units							
Conductivity	mS/cm	0.142	0.037	0.094	0.135	0.179	0.131	0.148
Dissolved Oxygen	mg/L	2.87	1.51	0.00	4.92	0.71	1.57	1.41
ORP	mV	-38	193	105	193	20	58	69
pH	s.u.	6.31	5.40	5.95	5.75	6.3	6.14	5.86
Temperature	°C	22.52	21.53	19.01	20.66	20.24	22.2	22.98
Turbidity	NTU	3.2	0	0.1	7.4	25.1	0.92	0
General Chemistry (mg/L)								
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-
Sulfate	mg/L	-	**8**	**8.3**	-	**8.5**	**8.5**	-
Sulfide	mg/L	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	< 1.0	< 1.0	-	**1.1**	< 1.0	-
Iron	mg/L	-	< 0.200	< 0.200	-	**2.09**	**1.22**	-
Iron, Ferrous	mg/L	-	< 0.050	< 0.050	-	**2.2**	**0.87**	-
Volatile Fatty Acids (mg/L)								
Acetic Acid	mg/L	-	-	-	-	-	-	-
Propionic Acid	mg/L	-	-	-	-	-	-	-
Pyruvic Acid	mg/L	-	-	-	-	-	-	-
Butyric Acid	mg/L	-	-	-	-	-	-	-
Lactic Acid	mg/L	-	-	-	-	-	-	-
Dissolved Gases (ug/L)								
Ethane	ug/L	-	< 5.0	< 5.0	-	< 5.0	< 5.0	-
Ethene	ug/L	-	< 5.0	< 5.0	-	< 5.0	< 5.0	-
Methane	ug/L	-	< 5.0	< 5.0	-	**540**	**16**	-
Volatile Organic Compounds (ug/L)								
1,1,2-Trichloroethane	ug/L	-	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	ug/L	-	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	ug/L	**45.3**	**72**	**80**	**63**	**75**	**78**	**77**
Methylene chloride	ug/L	-	< 4	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	ug/L	-	**1**	**1**	**1**	**1**	**2**	**2**
Trichloroethene	ug/L	**123**	**180**	**210**	**170**	**170**	**200**	**190**
Vinyl chloride	ug/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		MW-16I	MW-16I	MW-16I	MW-16I	MW-16I	MW-16I	MW-16I
Sample Date		3/3/2016	4/20/2016	7/7/2016	9/7/2016	12/22/2016	1/26/2017	3/9/2017
Field Parameters	Units							
Conductivity	mS/cm	0.771	24.9	7.5	5.19	2.97	2.33	2.06
Dissolved Oxygen	mg/L	0.00	0.00	0.19	0.60	1.54	1.72	0.45
ORP	mV	-13	-155	-128	-118	-73	-139	-134
pH	s.u.	6.37	7.04	6.95	6.15	6.4	6.24	6.46
Temperature	°C	19.49	20.72	21.05	23.84	20.37	19.78	17.31
Turbidity	NTU	32.6	488	58.1	41.3	20.6	68.2	1.68
General Chemistry (mg/L)								
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-
Sulfate	mg/L	**209**	**50**	< 5.0	< 5.0	< 5.0	-	< 5.0
Sulfide	mg/L	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	**6.2**	**15200**	**2900**	**3020**	**746**	-	**384**
Iron	mg/L	-	-	**75.7**	**107**	**50.3**	-	**35.8**
Iron, Ferrous	mg/L	**2.5**	**63.8**	**78.9**	**122**	**55.1**	-	**36.4**
Volatile Fatty Acids (mg/L)								
Acetic Acid	mg/L	-	< 500	**1900**	**2000**	**730**	-	**420**
Propionic Acid	mg/L	-	< 500	**2200**	**2200**	**440**	-	**170**
Pyruvic Acid	mg/L	-	< 500	< 25	< 50	< 10	-	< 5.0
Butyric Acid	mg/L	-	< 500	**33**	**360**	**350**	-	**120**
Lactic Acid	mg/L	-	**37000**	**2200**	**120**	< 20	-	< 10.0
Dissolved Gases (ug/L)								
Ethane	ug/L	-	-	-	-	-	-	**6.5**
Ethene	ug/L	-	-	-	-	-	-	**3200**
Methane	ug/L	-	-	-	-	-	-	**2000**
Volatile Organic Compounds (ug/L)								
1,1,2-Trichloroethane	ug/L	< 20	< 10	< 20	< 1	< 10	-	< 20
1,1-Dichloroethene	ug/L	-	-	-	**12**	**14**	-	< 20
cis-1,2-Dichloroethene	ug/L	**13000**	**9000**	**20000**	**22000**	**16000**	**12151.5**	**9100**
Methylene chloride	ug/L	< 80	< 40	< 80	< 4	< 40	-	< 80
trans-1,2-Dichloroethene	ug/L	**37**	**190**	**360**	**250**	**560**	-	**270**
Trichloroethene	ug/L	**19000**	**6200**	**3100**	**97**	< 10	<1000	< 20
Vinyl chloride	ug/L	**440**	**75**	**240**	**110**	**2200**	**2581.1**	**950**

Notes and Abbreviations:

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3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		MW-16I	MW-16I	MW-16I	MW-16I	MW-16I	MW-16I	MW-16I
Sample Date		6/29/2017	9/7/2017	1/17/2018	3/19/2018	5/3/2018	7/11/2018	8/20/2018
Field Parameters	Units							
Conductivity	mS/cm	1.58	1.29	1.78	1.08	21.8	17.8	14.7
Dissolved Oxygen	mg/L	5.07	1.03	1.43	0.00	0.18	0.00	0.72
ORP	mV	-104	-121	-53	-66	-209	-61	-83
pH	s.u.	7.06	7.13	6.08	6.32	7.1	6.46	6.6
Temperature	°C	22.24	20.77	19.75	21.17	19.87	19.69	25.51
Turbidity	NTU	77.6	16.0	5.5	19.8	42.9	74.6	78.5
General Chemistry (mg/L)								
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-
Sulfate	mg/L	-	**8.8**	**10.8**	-	**35.3**	**11.4**	-
Sulfide	mg/L	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	**93.4**	**73.2**	-	**8950**	**7100**	-
Iron	mg/L	-	**16.5**	**14.7**	-	**673**	**203**	-
Iron, Ferrous	mg/L	-	**17.7**	**13.8**	-	**624**	**185**	-
Volatile Fatty Acids (mg/L)								
Acetic Acid	mg/L	-	-	-	-	-	-	-
Propionic Acid	mg/L	-	-	-	-	-	-	-
Pyruvic Acid	mg/L	-	-	-	-	-	-	-
Butyric Acid	mg/L	-	-	-	-	-	-	-
Lactic Acid	mg/L	-	-	-	-	-	-	-
Dissolved Gases (ug/L)								
Ethane	ug/L	-	**5.6**	< 5.0	-	< 5.0	16	-
Ethene	ug/L	-	**3000**	**4500**	-	**110**	**250**	-
Methane	ug/L	-	**4700**	**4900**	-	**180**	**2400**	-
Volatile Organic Compounds (ug/L)								
1,1,2-Trichloroethane	ug/L	-	< 5	< 10	< 10	< 1	< 10	< 20
1,1-Dichloroethene	ug/L	-	**7**	< 10	10	< 1	< 10	< 20
cis-1,2-Dichloroethene	ug/L	**1696.8**	**5000**	**4100**	**5800**	**23**	**20**	**24**
Methylene chloride	ug/L	-	< 20	< 10	< 10	< 1	< 10	< 20
trans-1,2-Dichloroethene	ug/L	-	**88**	**90**	**120**	< 1	< 10	< 20
Trichloroethene	ug/L	< 200	**9**	**29**	**59**	< 1	< 10	< 20
Vinyl chloride	ug/L	**219.3**	**800**	**530**	**1200**	**16**	< 10	< 20

Notes and Abbreviations:

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3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3	HAMP-3
Sample Date		3/3/2016	4/20/2016	7/7/2016	9/7/2016	1/26/2017	3/9/2017	6/29/2017	9/7/2017	1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units											
Conductivity	mS/cm	0.871	0.562	0.688	4.83	4.97	6.18	5.08	3.82	3.72	0.771	1.08
Dissolved Oxygen	mg/L	0.00	0.00	0.16	4.13	0.96	0.83	0.00	1.08	1.54	0.00	0.00
ORP	mV	-151	-131	-171	-162	-166	-167	-182	-181	-170	-216	-143
pH	s.u.	7.69	7.24	8.42	6.77	6.93	7.05	7.29	8.18	7.28	7.97	7.69
Temperature	°C	18.27	20.46	20.19	23.39	19.70	17.81	22.2	20.77	19.41	19.88	18.82
Turbidity	NTU	37.9	11.8	11.1	16.0	16.9	-	89.4	251	78.6	13.6	20.9
General Chemistry (mg/L)												
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	-	< 5.0	-	< 5.0	**11.4**	< 5.0	< 5.0
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	**4.3**	**2**	**48.2**	**1900**	-	**2290**	-	**471**	**266**	**3.2**	**119**
Iron	mg/L	-	-	**0.7**	**42.9**	-	**47.0**	-	**30.4**	**8.22**	**0.90**	**1.74**
Iron, Ferrous	mg/L	**2.00**	**0.77**	**0.7**	**47.9**	-	**46.9**	-	**29.5**	**8.5**	**1.2**	**2.2**
Volatile Fatty Acids (mg/L)												
Acetic Acid	mg/L	-	< 5.0	**12**	**2400**	-	**1400**	-	-	-	-	-
Propionic Acid	mg/L	-	< 5.0	**84**	**3200**	-	**1700**	-	-	-	-	-
Pyruvic Acid	mg/L	-	< 5.0	< 5.0	**< 50**	-	< 5.0	-	-	-	-	-
Butyric Acid	mg/L	-	< 5.0	< 5.0	**110**	-	**100**	-	-	-	-	-
Lactic Acid	mg/L	-	< 10	< 10	**160**	-	< 10	-	-	-	-	-
Dissolved Gases (ug/L)												
Ethane	ug/L	-	-	-	-	-	< 5.0	-	**28**	**53**	**25**	**45**
Ethene	ug/L	-	-	-	-	-	**97**	-	**50**	**180**	**260**	**130**
Methane	ug/L	-	-	-	-	-	**16000**	-	**17000**	**24000**	**13000**	**14000**
Volatile Organic Compounds (ug/L)												
1,1,2-Trichloroethane	ug/L	< 2.0	< 1.0	< 1.0	< 1.0	-	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1
1,1-Dichloroethene	ug/L	-	-	-	**2**	-	< 1.0	-	< 1.0	< 1.0	**1**	< 1
cis-1,2-Dichloroethene	ug/L	**410.0**	**270.0**	**350**	**1000**	**228.7**	**140**	**58.4**	**12**	**130**	**440**	**200**
Methylene chloride	ug/L	< 8.0	< 4.0	< 4.0	< 4.0	-	< 4.0	-	< 4.0	< 1.0	< 1.0	< 1
trans-1,2-Dichloroethene	ug/L	< 2.0	**2**	**3**	**16**	-	**14**	-	**7**	**21**	**14**	**8**
Trichloroethene	ug/L	**92**	**19**	**7**	**6**	ND	< 1.0	< 10	< 1.0	< 1.0	**2**	< 1
Vinyl chloride	ug/L	4	**3**	**4**	**17**	**13.4**	**15**	< 10	**3**	**71**	**52**	**23**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7	HAMP-7
Sample Date		3/3/2016	4/20/2016	7/7/2016	9/7/2016	1/26/2017	3/9/2017	6/29/2017	9/7/2017	1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units											
Conductivity	mS/cm	0.237	0.255	1.72	2.56	3.04	2.00	0.74	0.222	0.437	0.741	0.858
Dissolved Oxygen	mg/L	0.00	0.00	0.06	0.24	0.62	0.36	0.00	1.42	0.00	0.58	0.97
ORP	mV	197	156	-107	-112	-178	-156	-124	-70	-105	-83	-74
pH	s.u.	6.00	5.39	6.85	6.29	6.65	6.90	6.98	6.72	6.51	6.00	6.56
Temperature	°C	20.03	20.69	18.08	26.26	20.37	17.93	22.47	21.69	21.27	20.13	21.5
Turbidity	NTU	8.6	16.3	40.6	17.6	82.7	0.0	60.5	108	6.0	13.9	2.6
General Chemistry (mg/L)												
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**41.2**	**43.8**	**31.0**	**23.8**	-	**25.2**	-	**26.6**	**40.3**	**21.0**	**16.6**
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	**1.6**	**6.4**	**461**	**955**	-	**261**	-	**3.3**	**3.1**	**8.5**	**37.4**
Iron	mg/L	-	-	**33.6**	**79.2**	-	**33.8**	-	**8.81**	**12.2**	**18.4**	**32.8**
Iron, Ferrous	mg/L	< 0.05	**0.05**	**45.5**	**93.0**	-	**29.7**	-	**10.3**	**12.5**	**18.8**	**31.9**
Volatile Fatty Acids (mg/L)												
Acetic Acid	mg/L	-	< 5.0	**280**	**530**	-	**170**	-	-	-	-	-
Propionic Acid	mg/L	-	< 5.0	**370**	**650**	-	**350**	-	-	-	-	-
Pyruvic Acid	mg/L	-	< 5.0	< 5.0	< 5.0	-	< 5.0	-	-	-	-	-
Butyric Acid	mg/L	-	< 5.0	< 5.0	**81**	-	**74**	-	-	-	-	-
Lactic Acid	mg/L	-	< 10	**320**	**340**	-	< 10	-	-	-	-	-
Dissolved Gases (ug/L)												
Ethane	ug/L	-	-	-	-	-	< 5.0	-	< 5.0	< 5.0	< 5.0	< 5.0
Ethene	ug/L	-	-	-	-	-	**310**	-	**280**	**76**	**250**	**430**
Methane	ug/L	-	-	-	-	-	**7500**	-	**540**	**960**	**1800**	**1600**
Volatile Organic Compounds (ug/L)												
1,1,2-Trichloroethane	ug/L	< 20	< 10	< 10	< 5.0	-	< 2	-	< 5.0	< 20	< 5	< 10
1,1-Dichloroethene	ug/L	-	-	-	**11**	-	**6**	-	**8**	< 20	< 5	< 10
cis-1,2-Dichloroethene	ug/L	**2100**	**2200**	**4800**	**6000**	**2397.7**	**2900**	**2390.6**	**2500**	**4000**	**3000**	**4200**
Methylene chloride	ug/L	< 80	< 40	< 40	< 20	-	< 8	-	< 20	< 20	< 5	< 10
trans-1,2-Dichloroethene	ug/L	< 20	**12**	**18**	**16**	-	**17**	-	**17**	**21**	**20**	**24**
Trichloroethene	ug/L	**8500**	**9900**	**8800**	**4500**	**3703.4**	**6300**	**4184.9**	**5200**	**8400**	**3500**	**3600**
Vinyl chloride	ug/L	**48**	**33**	**53**	**50**	**114.6**	**130**	**144.8**	**120**	**190**	**170**	**160**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8	HAMP-8
Sample Date		3/3/2016	4/20/2016	7/7/2016	9/7/2016	1/26/2017	3/9/2017	6/29/2017	9/7/2017	1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units											
Conductivity	mS/cm	0.644	0.514	1.49	1.93	1.55	1.34	0.981	0.327	1.53	1.02	1.78
Dissolved Oxygen	mg/L	0.00	0.00	0.13	0.25	0.76	0.38	0.00	1.70	1.36	0.00	0.00
ORP	mV	99	145	-75	-125	-167	-165	-133	-65	-49	-88	-35
pH	s.u.	5.29	5.13	6.53	5.94	6.37	6.60	6.79	6.42	6.11	6.38	6.31
Temperature	°C	18.8	20.18	20.37	25.9	19.46	17.26	21.77	26.11	19.59	20.02	19.28
Turbidity	NTU	15.1	6.8	16.1	21.7	42.2	0.0	19.8	35.7	9.8	1.8	0.4
General Chemistry (mg/L)												
Alkalinity, Total (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**152**	**139**	**91.9**	**30.0**	-	**5.4**	-	**34.0**	**37.0**	**27.5**	**20.4**
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	**5.3**	**1**	**453**	**782**	-	**156**	-	**53.3**	**38.3**	**25.1**	**221**
Iron	mg/L	-	-	**11.6**	**61.3**	-	**14.7**	-	**7.7**	**10.4**	**15.6**	**32.9**
Iron, Ferrous	mg/L	**1.3**	**0.05**	**14.7**	**74.8**	-	**12.4**	-	**9.6**	**11.4**	**14.5**	**33.7**
Volatile Fatty Acids (mg/L)												
Acetic Acid	mg/L	-	< 5.0	**170**	**710**	-	**240**	-	-	-	-	-
Propionic Acid	mg/L	-	< 5.0	**120**	**520**	-	**58**	-	-	-	-	-
Pyruvic Acid	mg/L	-	< 5.0	< 5.0	< 5.0	-	< 5.0	-	-	-	-	-
Butyric Acid	mg/L	-	< 5.0	**19**	**39**	-	< 5.0	-	-	-	-	-
Lactic Acid	mg/L	-	35	**760**	**350**	-	< 10	-	-	-	-	-
Dissolved Gases (ug/L)												
Ethane	ug/L	-	-	-	-	-	< 5.0	-	< 5.0	< 5.0	< 5.0	< 5.0
Ethene	ug/L	-	-	-	-	-	< 5.0	-	**650**	**600**	**550**	**940**
Methane	ug/L	-	-	-	-	-	**110**	-	**110**	**100**	**150**	**140**
Volatile Organic Compounds (ug/L)												
1,1,2-Trichloroethane	ug/L	57	< 100	< 20	< 20	-	< 50	-	< 50	< 50	< 20	< 50
1,1-Dichloroethene	ug/L	-	-	-	< 20	-	< 50	-	**79**	< 50	**46**	< 50
cis-1,2-Dichloroethene	ug/L	**3200**	**3000**	**4000**	**8700**	**18419.8**	**27000**	**18321.6**	**25000**	**26000**	**19000**	**20000**
Methylene chloride	ug/L	< 200	< 400	< 80	< 80	-	< 200	-	< 200	< 50	< 20	< 50
trans-1,2-Dichloroethene	ug/L	< 50	< 100	**120**	**200**	-	**98**	-	**86**	**120**	**110**	**120**
Trichloroethene	ug/L	**27000**	**30000**	**26000**	**18000**	**3650**	**760**	**1539**	**4100**	**4600**	**900**	**360**
Vinyl chloride	ug/L	< 50	< 100	**25**	< 20	ND	< 50	**468.9**	**650**	**750**	**810**	**900**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-9	HAMP-9	HAMP-9
Sample Date		1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units			
Conductivity	mS/cm	0.262	0.126	0.105
Dissolved Oxygen	mg/L	3.00	1.26	1.62
ORP	mV	95	78	162
pH	s.u.	6.04	6.32	5.96
Temperature	°C	20.13	20	21.34
Turbidity	NTU	5.5	1.1	3.3
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)	mg/L	-	-	-
Nitrate	mg/L	**-**	**-**	**-**
Nitrite (as N)	mg/L	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-
Sulfate	mg/L	< 5.0	< 5.0	< 5.0
Sulfide	mg/L	-	-	-
Total Organic Carbon (TOC)	mg/L	< 1.0	< 1.0	< 1.0
Iron	mg/L	< 0.200	**0.211**	< 0.200
Iron, Ferrous	mg/L	**0.079**	**0.082**	**0.12**
Volatile Fatty Acids (mg/L)				
Acetic Acid	mg/L	**-**	**-**	**-**
Propionic Acid	mg/L	**-**	**-**	**-**
Pyruvic Acid	mg/L	**-**	**-**	**-**
Butyric Acid	mg/L	**-**	**-**	**-**
Lactic Acid	mg/L	**-**	**-**	**-**
Dissolved Gases (ug/L)				
Ethane	ug/L	< 5.0	< 5.0	< 5.0
Ethene	ug/L	< 5.0	< 5.0	< 5.0
Methane	ug/L	**10**	**18**	**20**
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	ug/L	< 20	< 10	< 10
1,1-Dichloroethene	ug/L	< 20	< 10	< 10
cis-1,2-Dichloroethene	ug/L	**1700**	**1800**	**1900**
Methylene chloride	ug/L	< 20	< 10	< 10
trans-1,2-Dichloroethene	ug/L	< 20	< 10	**10**
Trichloroethene	ug/L	**6200**	**4300**	**5600**
Vinyl chloride	ug/L	< 20	**18**	**18**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-10	HAMP-10	HAMP-10
Sample Date		1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units			
Conductivity	mS/cm	0.848	0.503	0.529
Dissolved Oxygen	mg/L	1.34	0.00	0.53
ORP	mV	110	59	93
pH	s.u.	4.95	5.53	5.66
Temperature	°C	20.08	20.04	22.06
Turbidity	NTU	10.0	0.9	7.1
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)	mg/L	-	-	-
Nitrate	mg/L	-	-	-
Nitrite (as N)	mg/L	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-
Sulfate	mg/L	**144**	**149**	**147**
Sulfide	mg/L	-	-	-
Total Organic Carbon (TOC)	mg/L	**3.1**	**3.0**	**3.2**
Iron	mg/L	**2.67**	**8.52**	**16.6**
Iron, Ferrous	mg/L	**1.0**	**8.6**	**13.5**
Volatile Fatty Acids (mg/L)				
Acetic Acid	mg/L	-	-	-
Propionic Acid	mg/L	-	-	-
Pyruvic Acid	mg/L	-	-	-
Butyric Acid	mg/L	-	-	-
Lactic Acid	mg/L	-	-	-
Dissolved Gases (ug/L)				
Ethane	ug/L	< 5.0	< 5.0	< 5.0
Ethene	ug/L	**11**	**7.2**	**6.2**
Methane	ug/L	**76**	**92**	**83**
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	ug/L	< 1	< 1	< 1
1,1-Dichloroethene	ug/L	< 1	< 1	**1**
cis-1,2-Dichloroethene	ug/L	**600**	**560**	**670**
Methylene chloride	ug/L	< 1	< 1	< 1
trans-1,2-Dichloroethene	ug/L	**6**	**6**	**7**
Trichloroethene	ug/L	**460**	**410**	**510**
Vinyl chloride	ug/L	**21**	**18**	**16**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-11	HAMP-11	HAMP-11
Sample Date		1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units			
Conductivity	mS/cm	0.455	1.18	0.978
Dissolved Oxygen	mg/L	0.00	0.33	0.00
ORP	mV	-136	-156	-91
pH	s.u.	6.79	6.98	6.92
Temperature	°C	18.78	22.61	18.97
Turbidity	NTU	102.0	18.0	9.7
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)	mg/L	-	-	-
Nitrate	mg/L	**-**	**-**	**-**
Nitrite (as N)	mg/L	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-
Sulfate	mg/L	**12.8**	**10.5**	**7.2**
Sulfide	mg/L	-	-	-
Total Organic Carbon (TOC)	mg/L	**16.7**	**62**	**30.1**
Iron	mg/L	**27.9**	**16.3**	**24.8**
Iron, Ferrous	mg/L	**28.5**	**22.1**	**23.5**
Volatile Fatty Acids (mg/L)				
Acetic Acid	mg/L	-	-	-
Propionic Acid	mg/L	-	-	-
Pyruvic Acid	mg/L	-	-	-
Butyric Acid	mg/L	-	-	-
Lactic Acid	mg/L	-	-	-
Dissolved Gases (ug/L)				
Ethane	ug/L	**16**	**12**	**9.6**
Ethene	ug/L	**1500**	**3300**	**4000**
Methane	ug/L	**3500**	**7100**	**9300**
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	ug/L	< 5	< 10	< 5
1,1-Dichloroethene	ug/L	< 5	< 10	**5**
cis-1,2-Dichloroethene	ug/L	**1900**	**4300**	**2900**
Methylene chloride	ug/L	< 5	< 10	< 5
trans-1,2-Dichloroethene	ug/L	**19**	**21**	**23**
Trichloroethene	ug/L	**1600**	**2300**	**1400**
Vinyl chloride	ug/L	**170**	**280**	**370**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		HAMP-12	HAMP-12	HAMP-12
Sample Date		1/17/2018	5/3/2018	7/11/2018
Field Parameters	Units			
Conductivity	mS/cm	0.087	0.079	0.094
Dissolved Oxygen	mg/L	0.00	0.00	0.00
ORP	mV	135	220	318
pH	s.u.	5.13	4.87	4.53
Temperature	°C	19.95	21.54	19.87
Turbidity	NTU	13.1	0.4	0.0
General Chemistry (mg/L)				
Alkalinity, Total (as CaCO3)	mg/L	-	-	-
Nitrate	mg/L	**-**	**-**	**-**
Nitrite (as N)	mg/L	-	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-	-
Sulfate	mg/L	< 5.0	< 5.0	< 5.0
Sulfide	mg/L	-	-	-
Total Organic Carbon (TOC)	mg/L	**1.1**	< 1.0	**1.1**
Iron	mg/L	**1.54**	**0.441**	**0.26**
Iron, Ferrous	mg/L	**1.3**	**0.37**	**0.2**
Volatile Fatty Acids (mg/L)				
Acetic Acid	mg/L	-	-	-
Propionic Acid	mg/L	-	-	-
Pyruvic Acid	mg/L	-	-	-
Butyric Acid	mg/L	-	-	-
Lactic Acid	mg/L	-	-	-
Dissolved Gases (ug/L)				
Ethane	ug/L	**5.4**	**5.6**	**5.9**
Ethene	ug/L	< 5.0	**6.9**	**6.8**
Methane	ug/L	**1400**	**1700**	**1900**
Volatile Organic Compounds (ug/L)				
1,1,2-Trichloroethane	ug/L	< 10	< 5	< 5
1,1-Dichloroethene	ug/L	< 10	< 5	< 5
cis-1,2-Dichloroethene	ug/L	**1100**	**740**	**700**
Methylene chloride	ug/L	< 10	< 5	< 5
trans-1,2-Dichloroethene	ug/L	< 10	< 5	< 5
Trichloroethene	ug/L	**3200**	**1800**	**1700**
Vinyl chloride	ug/L	**11**	**8**	**8**

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		UCMW-1
Sample Date		3/21/2018
Field Parameters	Units	
Conductivity	mS/cm	0.071
Dissolved Oxygen	mg/L	2.72
ORP	mV	216
pH	s.u.	6.11
Temperature	°C	21.48
Turbidity	NTU	20.8
General Chemistry (mg/L)		
Alkalinity, Total (as CaCO3)	mg/L	-
Nitrate	mg/L	**-**
Nitrite (as N)	mg/L	-
Nitrite/Nitrate Nitrogen	mg/L	-
Sulfate	mg/L	-
Sulfide	mg/L	-
Total Organic Carbon (TOC)	mg/L	-
Iron	mg/L	**-**
Iron, Ferrous	mg/L	**-**
Volatile Fatty Acids (mg/L)		
Acetic Acid	mg/L	-
Propionic Acid	mg/L	-
Pyruvic Acid	mg/L	-
Butyric Acid	mg/L	-
Lactic Acid	mg/L	-
Dissolved Gases (ug/L)		
Ethane	ug/L	**-**
Ethene	ug/L	**-**
Methane	ug/L	**-**
Volatile Organic Compounds (ug/L)		
1,1,2-Trichloroethane	ug/L	< 1
1,1-Dichloroethene	ug/L	< 1
cis-1,2-Dichloroethene	ug/L	**13**
Methylene chloride	ug/L	< 1
trans-1,2-Dichloroethene	ug/L	< 1
Trichloroethene	ug/L	**890**
Vinyl chloride	ug/L	< 1

Notes and Abbreviations:

1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE III
INJECTION GROUNDWATER MONITORING PARAMETERS
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		UCMW-2	UCMW-2
Sample Date		3/21/2018	7/11/2018
Field Parameters	Units		
Conductivity	mS/cm	0.984	0.954
Dissolved Oxygen	mg/L	0.00	0.67
ORP	mV	264	311
pH	s.u.	5.11	5.08
Temperature	°C	21.35	21.79
Turbidity	NTU	23.4	21.0
General Chemistry (mg/L)			
Alkalinity, Total (as CaCO3)	mg/L	-	-
Nitrate	mg/L	**-**	**-**
Nitrite (as N)	mg/L	-	-
Nitrite/Nitrate Nitrogen	mg/L	-	-
Sulfate	mg/L	-	**342**
Sulfide	mg/L	-	-
Total Organic Carbon (TOC)	mg/L	-	**13.6**
Iron	mg/L	**-**	**0.425**
Iron, Ferrous	mg/L	**-**	**0.3**
Volatile Fatty Acids (mg/L)			
Acetic Acid	mg/L	-	-
Propionic Acid	mg/L	-	-
Pyruvic Acid	mg/L	-	-
Butyric Acid	mg/L	-	-
Lactic Acid	mg/L	-	-
Dissolved Gases (ug/L)			
Ethane	ug/L	**-**	< 5.0
Ethene	ug/L	**-**	< 5.0
Methane	ug/L	**-**	**49**
Volatile Organic Compounds (ug/L)			
1,1,2-Trichloroethane	ug/L	< 100	< 100
1,1-Dichloroethene	ug/L	**140**	**110**
cis-1,2-Dichloroethene	ug/L	**3100**	**3300**
Methylene chloride	ug/L	**150**	**150**
trans-1,2-Dichloroethene	ug/L	< 100	< 100
Trichloroethene	ug/L	**100000**	**110000**
Vinyl chloride	ug/L	< 100	< 100

Notes and Abbreviations:

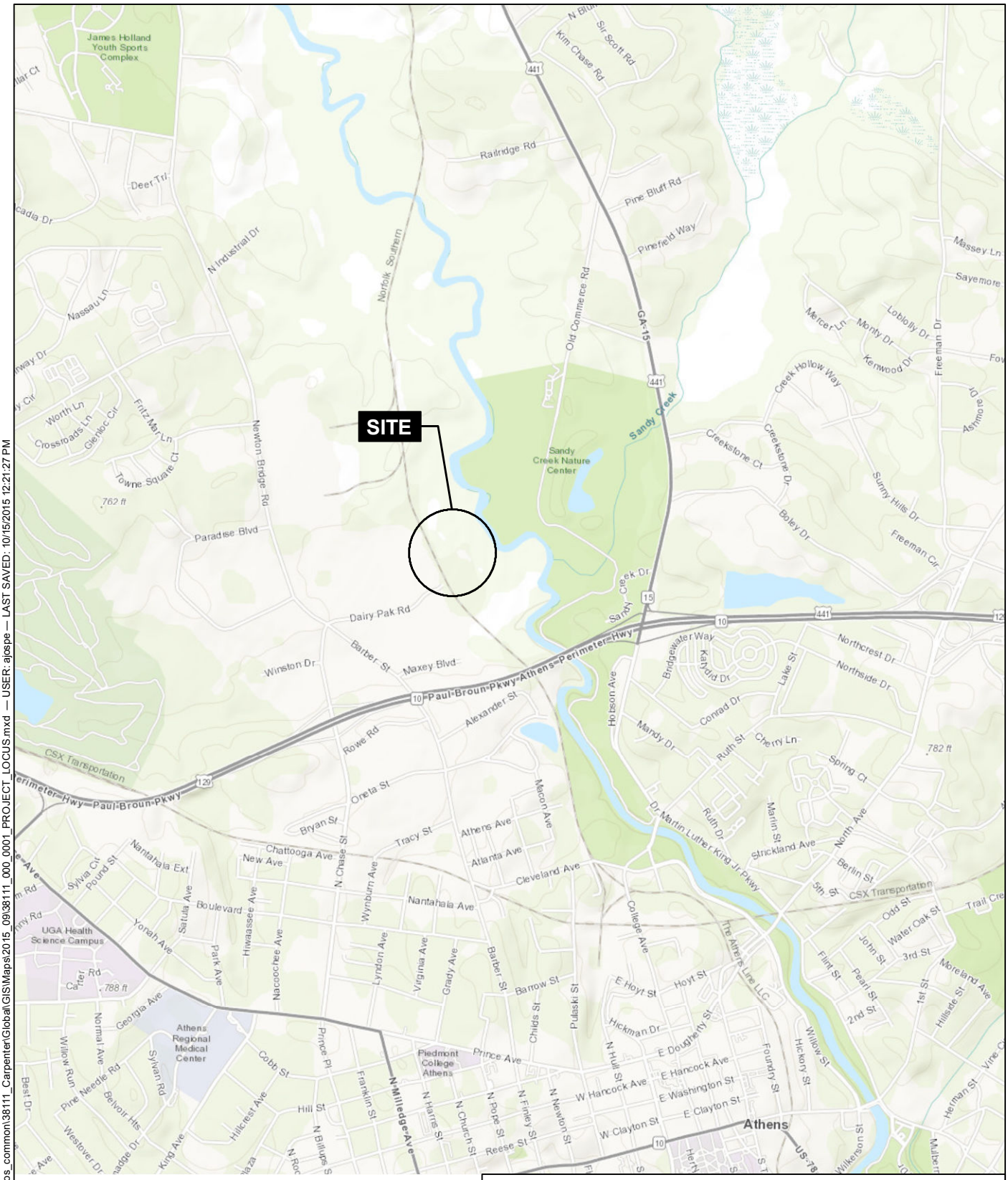
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.

TABLE IV
PROJECT MILESTONE SCHEDULE
CARPENTER - FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

No.	TASK	2013				2014				2015				2016				2017				2018				2019			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	VRP Application Submittal																												
2	Delineation	COMPLETE																											
3	Semiannual Groundwater and Surface Water Sampling																												
5	Supplemental Remedial Activities																												
6	Semiannual Reporting																												
7	Compliance Status Report Submittal																												

NOTES: VRP application was approved on April 16, 2014

FIGURES



GA

N

MAP SOURCE: ESRI
USGS QUAD: ATHENS WEST
SITE COORDINATES: 82°23'13"N,33°58'50"

HALEY ALDRICH

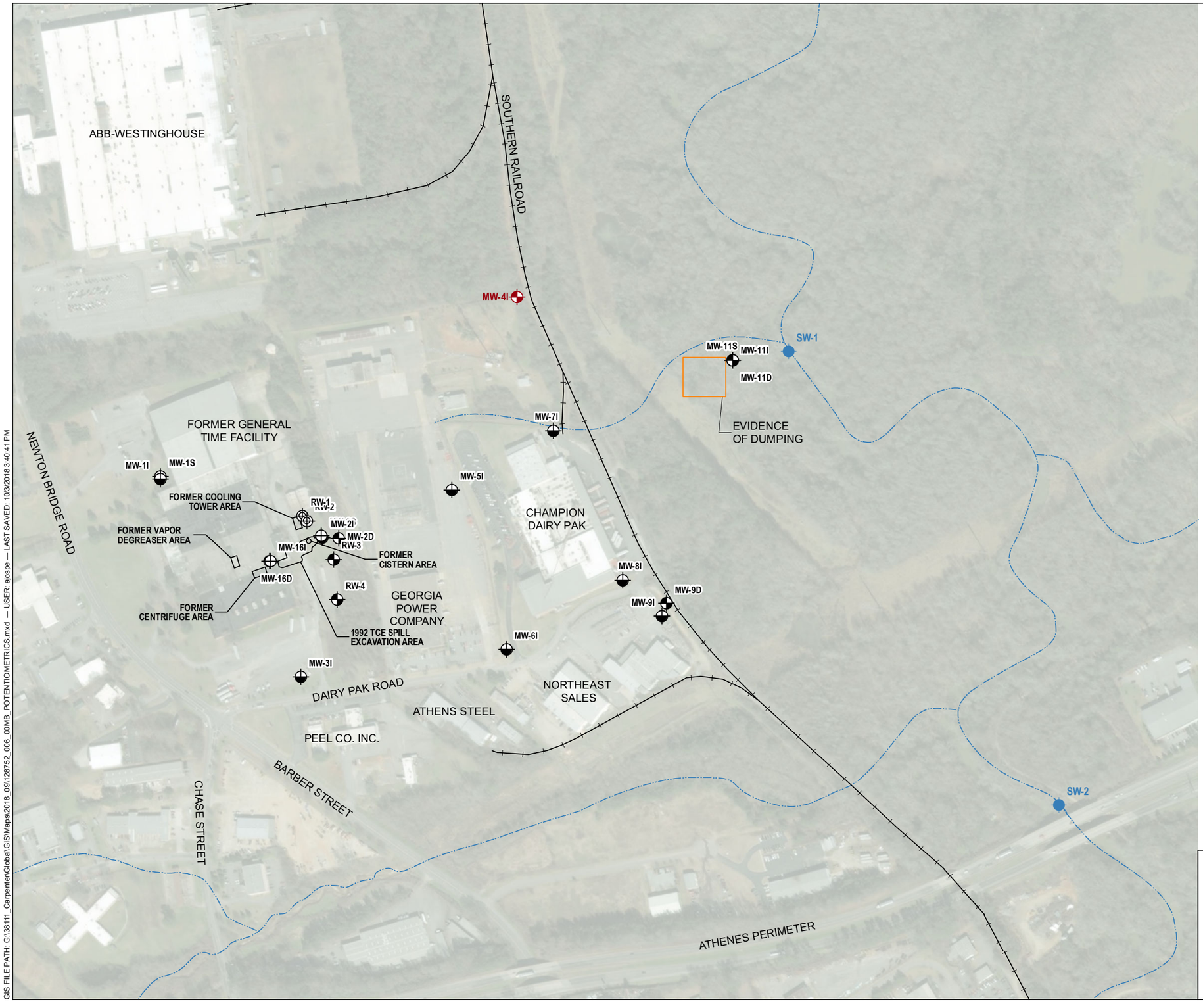
GENERAL TIME FACILITY
ATHENS, GEORGIA

SITE LOCATION MAP

APPROXIMATE SCALE: 1 IN = 2000 FT
SEPTEMBER 2018

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\bos_common\38111_Carpenter\Global\GIS\Maps\2015_09\38111_000_0001_PROJECT_LOCUS.mxd — USER: ajospe — LAST SAVED: 10/15/2015 12:21:27 PM



LEGEND

- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED MONITORING WELL
- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800

SCALE IN FEET

HALEY ALDRICH

FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

SITE MAP SHOWING SAMPLE LOCATIONS AND SUSPECTED SOURCE AREAS

OCTOBER 2018

FIGURE 2

ABB-WESTINGHOUSE

SOUTHERN RAILROAD

NEWTON BRIDGE ROAD

FORMER GENERAL TIME FACILITY

MW-1I
634.83

MW-2I
620.47

MW-3I
624.33

MW-5I
613.25

MW-6I
614.46

MW-7I
611.34

MW-8I
610.58

MW-9I
608.30

MW-11I
602.92

625

620

615

610

600

630

CHAMPION DAIRY PAK

GEORGIA POWER COMPANY

DAIRY PAK ROAD

NORTHEAST SALES

ATHENS STEEL

PEEL CO. INC.

BARBER STREET

CHASE STREET

ATHENES PERIMETER

LEGEND

- INTERMEDIATE MONITORING WELL WITH ID AND GROUNDWATER ELEVATION INDICATED IN FEET ABOVE MEAN SEA LEVEL (WHERE SAMPLED)
- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL, 2-FT INTERVAL
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. WATER LEVELS MEASURED 20 AUGUST 2018.
3. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800
SCALE IN FEET

HALEY ALDRICH

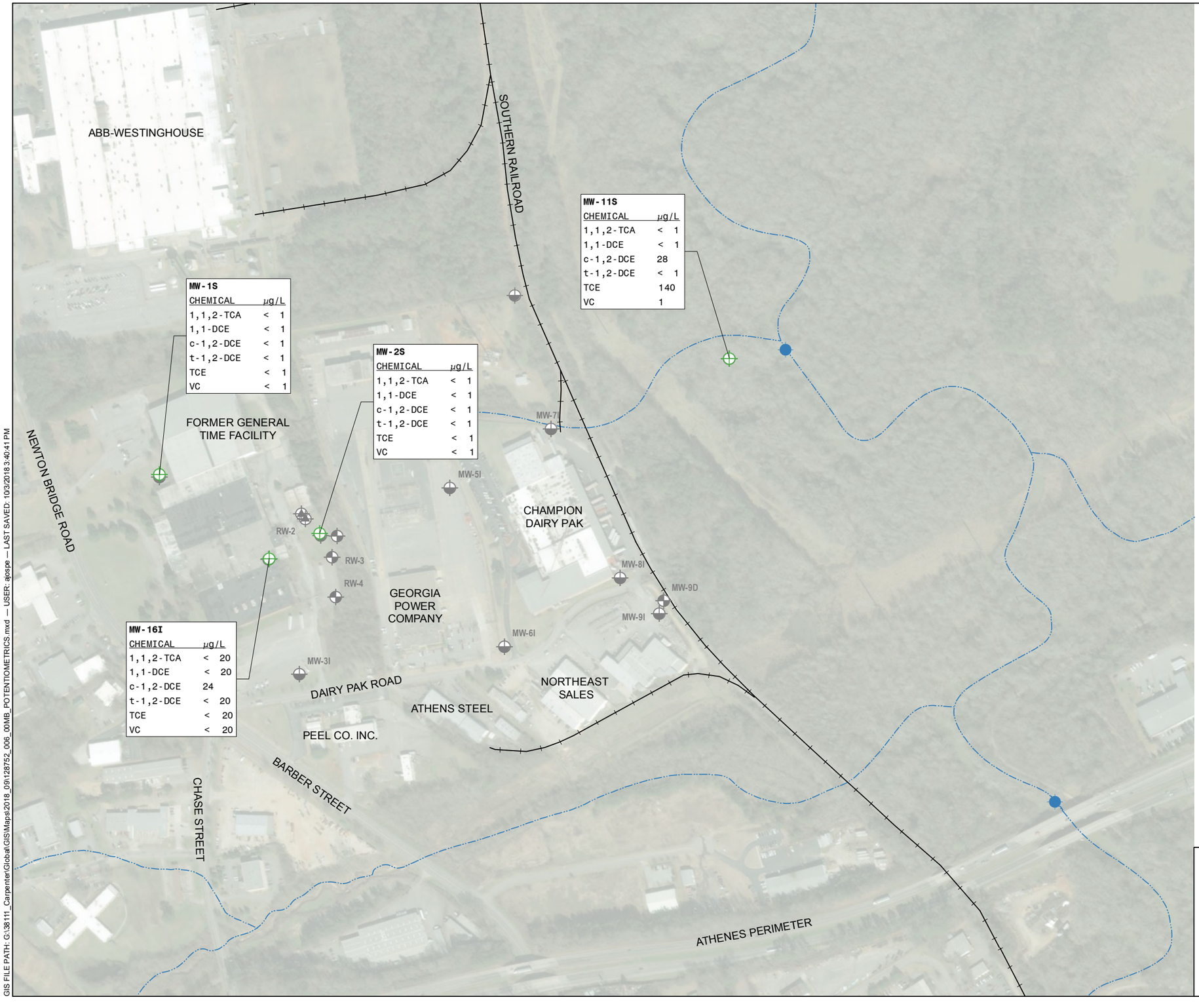
FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

POTENTIOMETRIC SURFACE AUGUST 2018

OCTOBER 2018

FIGURE 3

GIS FILE PATH: G:\38111_Carpenter\Global\GIS\Maps\2018_09\128752_006_00MB_POTENTIOMETRICS.mxd — USER: ajoslyn — LAST SAVED: 10/3/2018 3:40:41 PM



LEGEND

- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED WELL
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. ACRONYMS:
   1,1,2-TCA = 1,1,2-TRICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   c-1,2-DCE = cis-1,2-DICHLOROETHENE
   MC = METHYLENE CHLORIDE
   t-1,2-DCE = trans-1,2-DICHLOROETHENE
   TCE = TRICHLOROETHENE
   VC = VINYL CHLORIDE

4. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800
SCALE IN FEET

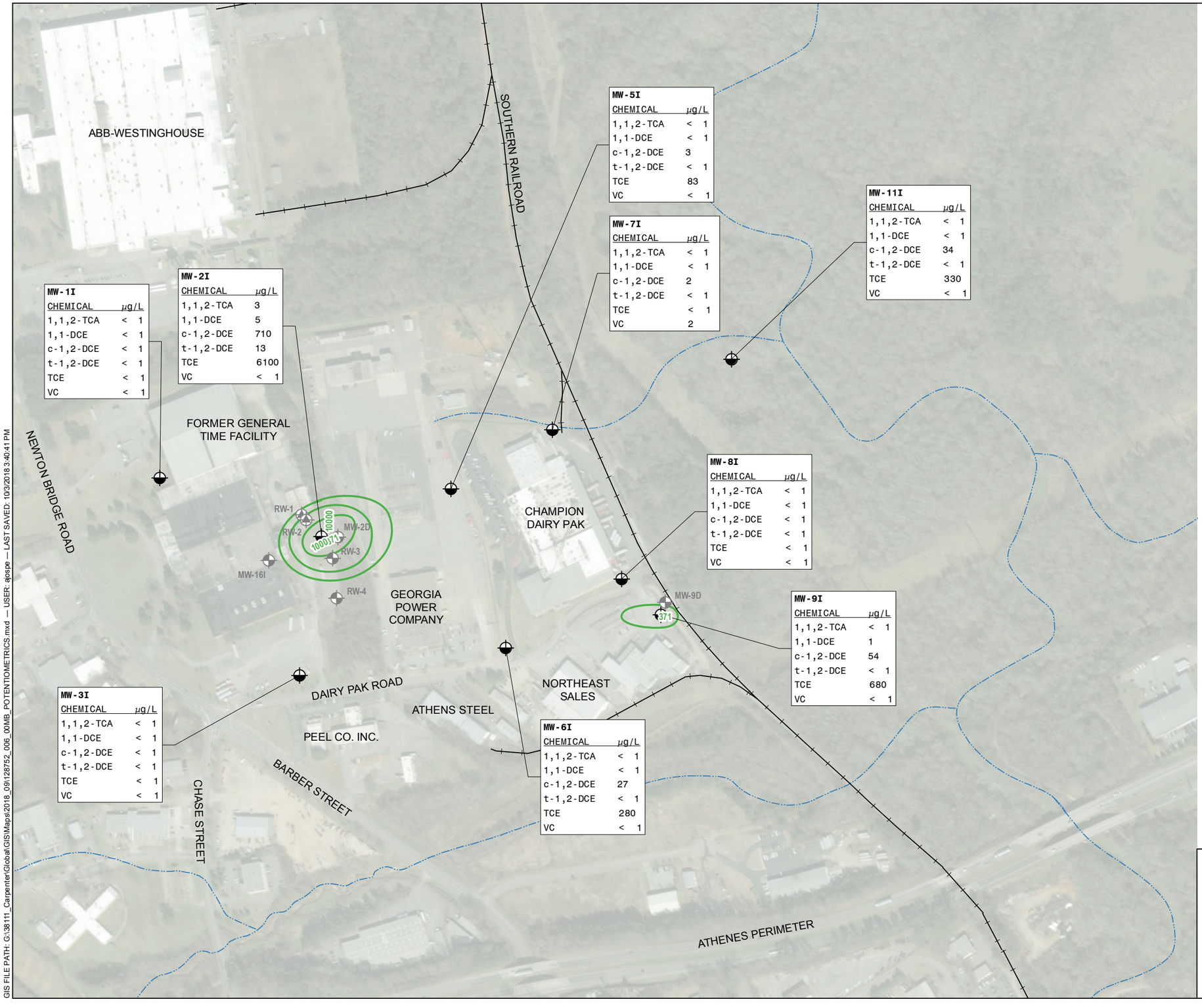
HALEY ALDRICH

FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

DISTRIBUTION OF TCE IN SHALLOW GROUNDWATER AUGUST 2018

OCTOBER 2018

FIGURE 4



MW-1I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	< 1
t-1,2-DCE	< 1
TCE	< 1
VC	< 1

MW-2I

CHEMICAL	µg/L
1,1,2-TCA	3
1,1-DCE	5
c-1,2-DCE	710
t-1,2-DCE	13
TCE	6100
VC	< 1

MW-3I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	< 1
t-1,2-DCE	< 1
TCE	< 1
VC	< 1

MW-5I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	3
t-1,2-DCE	< 1
TCE	83
VC	< 1

MW-7I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	2
t-1,2-DCE	< 1
TCE	< 1
VC	2

MW-8I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	< 1
t-1,2-DCE	< 1
TCE	< 1
VC	< 1

MW-6I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	27
t-1,2-DCE	< 1
TCE	280
VC	< 1

MW-11I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	< 1
c-1,2-DCE	34
t-1,2-DCE	< 1
TCE	330
VC	< 1

MW-9I

CHEMICAL	µg/L
1,1,2-TCA	< 1
1,1-DCE	1
c-1,2-DCE	54
t-1,2-DCE	< 1
TCE	680
VC	< 1

LEGEND

- NORTH OCONEE RIVER SURFACE WATER SAMPLING LOCATION
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- DESTROYED WELL
- TCE ISOCONCENTRATION CONTOUR µg/L, DASHED WHERE INFERRED
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. ACRONYMS:
   1,1,2-TCA = 1,1,2-TRICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   c-1,2-DCE = cis-1,2-DICHLOROETHENE
   MC = METHYLENE CHLORIDE
   t-1,2-DCE = trans-1,2-DICHLOROETHENE
   TCE = TRICHLOROETHENE
   VC = VINYL CHLORIDE

3. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800

SCALE IN FEET

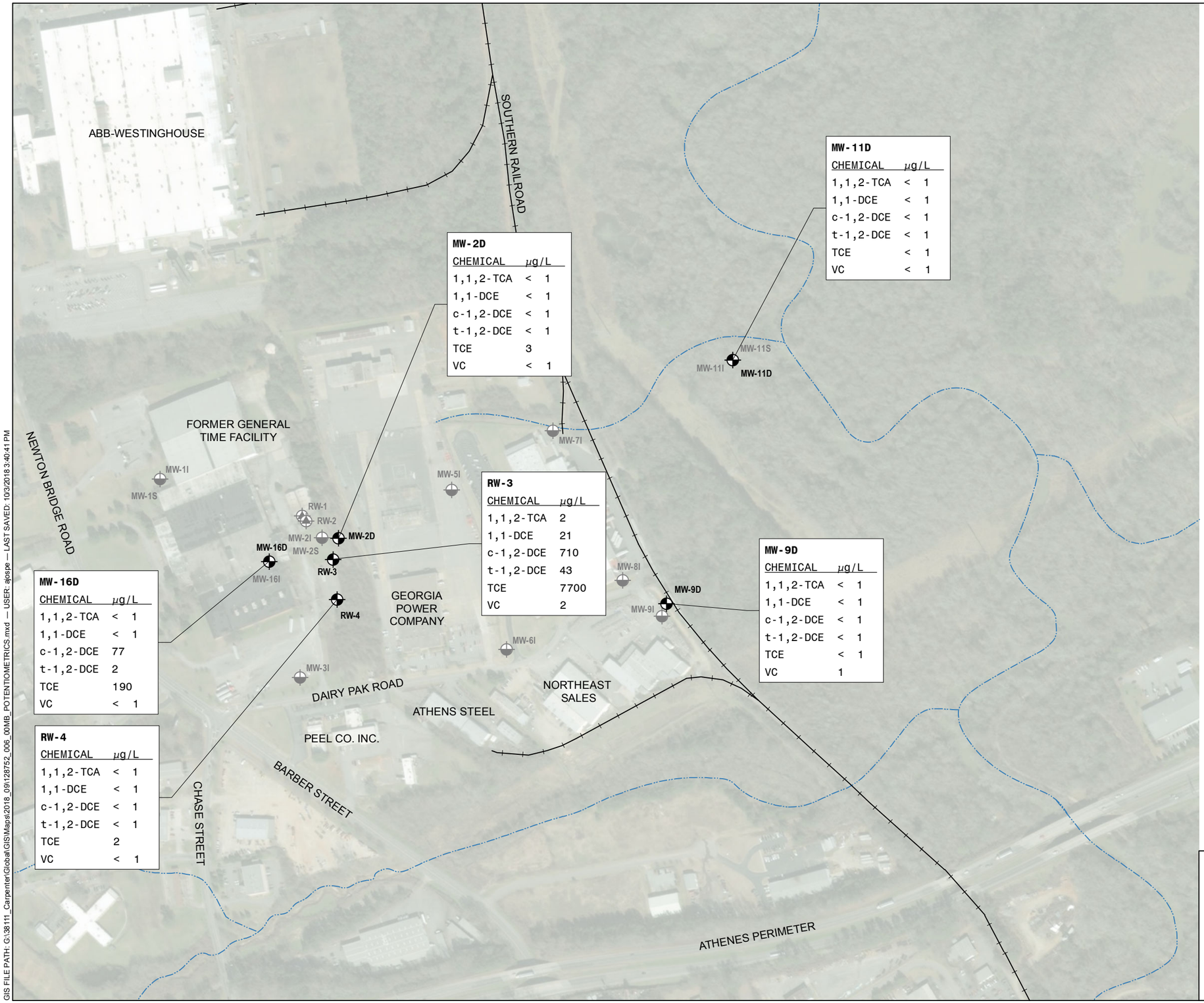
HALEY ALDRICH

FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

DISTRIBUTION OF TCE IN INTERMEDIATE GROUNDWATER AUGUST 2018

OCTOBER 2018

FIGURE 5



LEGEND

- DEEP MONITORING WELL
- INTERMEDIATE MONITORING WELL
- RECOVERY MONITORING WELL
- STREAM
- RAILROAD

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800

SCALE IN FEET

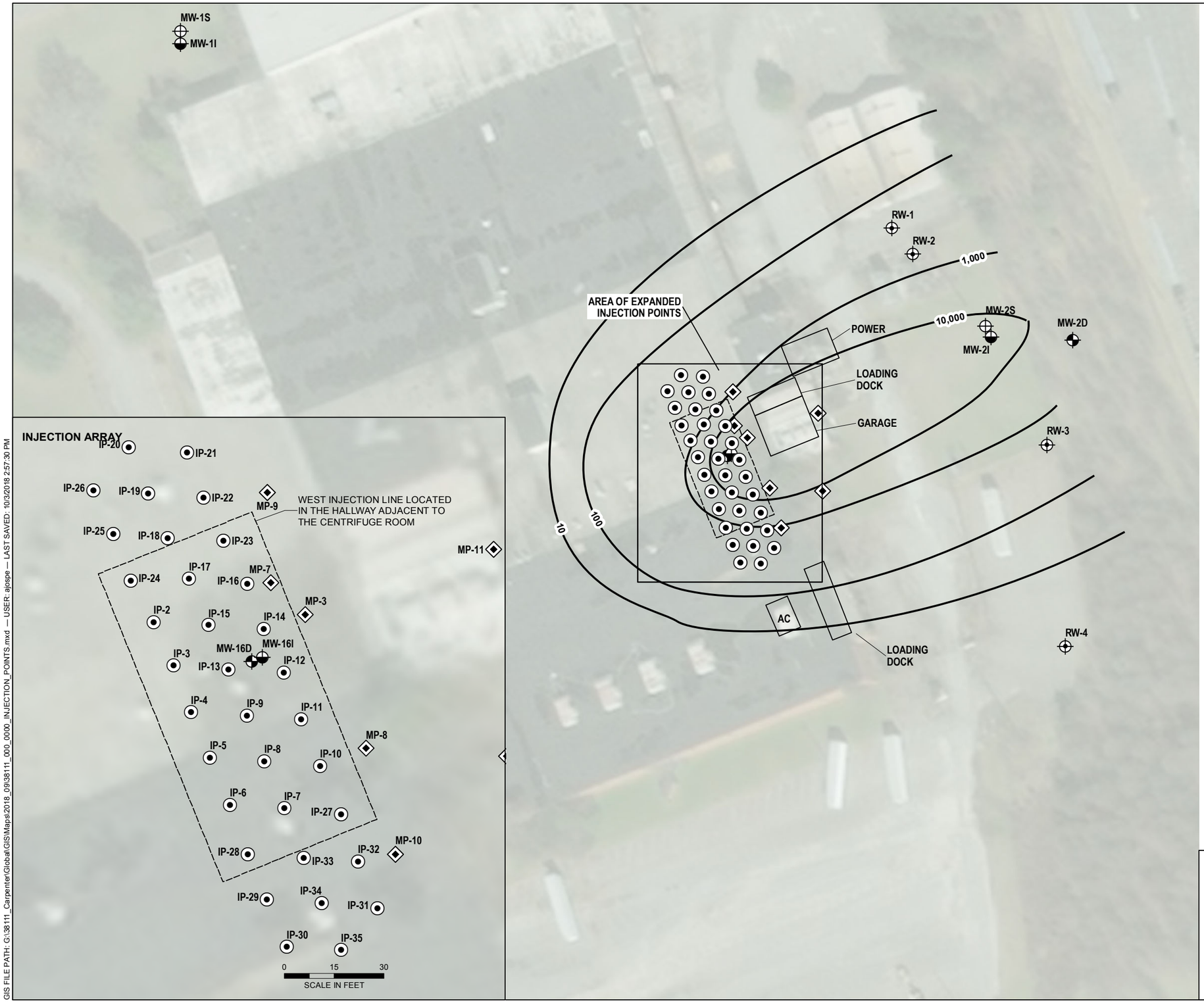
HALEY ALDRICH

FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

DISTRIBUTION OF TCE IN DEEP GROUNDWATER AUGUST 2018

OCTOBER 2018

FIGURE 6



LEGEND

- BASELINE AND POST-REMEDIATION MONITORING WELL LOCATION
- INJECTION POINT LOCATION
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- RECOVERY MONITORING WELL
- TCE ISO-CONCENTRATION CONTOUR IN µg/L (JULY 2011)

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 80 160
SCALE IN FEET

HALEY ALDRICH

FORMER GENERAL TIME FACILITY
ATHENS, GEORGIA

INJECTION POINTS AND BASELINE POST-REMEDIATION MONITORING WELLS

OCTOBER 2018

FIGURE 7

APPENDIX A

Analytical Report

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Report Date: May 17, 2018 17:22

Project: Former General Time

Account #: 00435
Group Number: 1939863
PO Number: 128752-004
State of Sample Origin: GA

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	Haley Aldrich	Attn: Shawn Lewis
Electronic Copy To	Carpenter Technology Corp.-PA	Attn: Mike Reichardt
Electronic Copy To	Carpenter Technology Corp.	Attn: Amie Chafin

Respectfully Submitted,

Jordan Zito
Project Manager

(717) 556-7289

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MP-9 Grab Groundwater	05/03/2018 08:34	9593558
MP-7 Grab Groundwater	05/03/2018 08:49	9593559
MP-3 Grab Groundwater	05/03/2018 09:31	9593560
MW-16I Grab Groundwater	05/03/2018 09:46	9593561
MP-8 Grab Groundwater	05/03/2018 10:24	9593562
MW-16D Grab Groundwater	05/03/2018 10:33	9593563
MP-10 Grab Groundwater	05/03/2018 11:49	9593564
MP-12 Grab Groundwater	05/03/2018 13:49	9593565
MP-11 Grab Groundwater	05/03/2018 14:01	9593566
TB Water	05/03/2018 14:01	9593567

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MP-9 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 08:34

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593558
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	1,800	10	10
10335	trans-1,2-Dichloroethene	156-60-5	< 10	10	10
10335	Methylene Chloride	75-09-2	< 10	10	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	4,300	100	100
10335	Vinyl Chloride	75-01-4	18	10	10
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	< 5.0	5.0	1
07105	Methane	74-82-8	18	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	0.211	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	< 5.0	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	< 1.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.082	0.050	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 01:25	Kevin D Kelly	10
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 01:50	Kevin D Kelly	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/16/2018 01:25	Kevin D Kelly	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181351AA	05/16/2018 01:50	Kevin D Kelly	100
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 16:03	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	2	181270184805	05/15/2018 18:50	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/05/2018 21:48	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602A	05/09/2018 22:53	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	1

Sample Description: **MP-7 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 08:49

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593559
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	5	5	5
10335	cis-1,2-Dichloroethene	156-59-2	3,000	50	50
10335	trans-1,2-Dichloroethene	156-60-5	20	5	5
10335	Methylene Chloride	75-09-2	< 5	5	5
10335	1,1,2-Trichloroethane	79-00-5	< 5	5	5
10335	Trichloroethene	79-01-6	3,500	50	50
10335	Vinyl Chloride	75-01-4	170	5	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	250	5.0	1
07105	Methane	74-82-8	1,800	50	10
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	18.4	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	21.0	10.0	10
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	8.5	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	18.8	5.0	100

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 15:20	Daniel H Heller	5
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 15:42	Daniel H Heller	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181361AA	05/16/2018 15:20	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181361AA	05/16/2018 15:42	Daniel H Heller	50
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 16:21	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/09/2018 10:38	Johanna C Kennedy	10
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 17:18	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/05/2018 22:39	Kianat Zamir	10
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/09/2018 23:49	Drew M Gerhart	1

Sample Description: **MP-7 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 08:49

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593559
ELLE Group #: 1939863
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	100

Sample Description: **MP-3 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 09:31

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593560
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10335	1,1-Dichloroethene	75-35-4	1		1	1
10335	cis-1,2-Dichloroethene	156-59-2	440	E	1	1
10335	trans-1,2-Dichloroethene	156-60-5	14		1	1
10335	Methylene Chloride	75-09-2	< 1		1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1		1	1
10335	Trichloroethene	79-01-6	2		1	1
10335	Vinyl Chloride	75-01-4	52		1	1
	The concentration reported for cis-1,2-Dichloroethene is estimated since it exceeds the calibration range of the instrument.					
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**		**ug/l**	
07105	Ethane	74-84-0	25		5.0	1
07105	Ethene	74-85-1	260		5.0	1
07105	Methane	74-82-8	13,000		250	50
Metals	**SW-846 6010B**		**mg/l**		**mg/l**	
01754	Iron	7439-89-6	0.896		0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**		**mg/l**	
00228	Sulfate	14808-79-8	< 5.0		5.0	5
	SM 5310 C-2011		**mg/l**		**mg/l**	
00273	Total Organic Carbon	n.a.	3.2		1.0	1
	SM 3500-Fe B-2011		**mg/l**		**mg/l**	
08344	Ferrous Iron	n.a.	1.2		0.25	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/15/2018 19:22	Kevin D Kelly	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/15/2018 19:22	Kevin D Kelly	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 16:40	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/09/2018 10:57	Johanna C Kennedy	50
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 17:28	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/05/2018 22:55	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 13:15	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	5

Sample Description: **MW-16I Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 09:46

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593561
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	23	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	16	1	1
	A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.				
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	110	5.0	1
07105	Methane	74-82-8	180	5.0	1
	A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.				
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	673	1.00	5
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	35.3	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	8,950	500	500
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	624	100	2000

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19. Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Organic Carbon

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/15/2018 21:06	Kevin D Kelly	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/15/2018 21:06	Kevin D Kelly	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 16:58	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181270184805	05/14/2018 03:00	Xavier Arroyo	5

Sample Description: **MW-16I Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 09:46

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593561
ELLE Group #: 1939863
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/05/2018 23:12	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 13:28	Drew M Gerhart	500
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	2000

Sample Description: **MP-8 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 10:24

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593562
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	46	20	20
10335	cis-1,2-Dichloroethene	156-59-2	19,000	200	200
10335	trans-1,2-Dichloroethene	156-60-5	110	20	20
10335	Methylene Chloride	75-09-2	< 20	20	20
10335	1,1,2-Trichloroethane	79-00-5	< 20	20	20
10335	Trichloroethene	79-01-6	900	20	20
10335	Vinyl Chloride	75-01-4	810	20	20
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	550	25	5
07105	Methane	74-82-8	150	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	15.6	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	27.5	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	25.1	2.0	2
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	14.5	5.0	100

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 03:09	Kevin D Kelly	20
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 03:35	Kevin D Kelly	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/16/2018 03:09	Kevin D Kelly	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181351AA	05/16/2018 03:35	Kevin D Kelly	200
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 17:34	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/09/2018 11:15	Johanna C Kennedy	5
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 17:34	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/08/2018 03:24	Clinton M Wilson	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 00:31	Drew M Gerhart	2

Sample Description: **MP-8 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 10:24

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593562
ELLE Group #: 1939863
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	100

Sample Description: **MW-16D Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 10:33

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593563
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	75	1	1
10335	trans-1,2-Dichloroethene	156-60-5	1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	170	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	< 5.0	5.0	1
07105	Methane	74-82-8	540	25	5
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	2.09	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	8.5	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	1.1	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	2.2	0.50	10

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/15/2018 21:32	Kevin D Kelly	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/15/2018 21:32	Kevin D Kelly	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/08/2018 17:53	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280026A	05/09/2018 11:33	Johanna C Kennedy	5
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 17:37	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/06/2018 00:19	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 01:01	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	10

Sample Description: **MP-10 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 11:49

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593564
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	560	10	10
10335	trans-1,2-Dichloroethene	156-60-5	6	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	410	10	10
10335	Vinyl Chloride	75-01-4	18	1	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	7.2	5.0	1
07105	Methane	74-82-8	92	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	8.52	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	149	50.0	50
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	3.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	8.6	2.5	50

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 16:26	Daniel H Heller	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 16:49	Daniel H Heller	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181361AA	05/16/2018 16:26	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181361AA	05/16/2018 16:49	Daniel H Heller	10
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280027A	05/08/2018 11:42	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 17:41	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/06/2018 00:35	Kianat Zamir	50
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 01:14	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	50

Sample Description: **MP-12 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 13:49

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593565
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 5	5	5
10335	cis-1,2-Dichloroethene	156-59-2	740	5	5
10335	trans-1,2-Dichloroethene	156-60-5	< 5	5	5
10335	Methylene Chloride	75-09-2	< 5	5	5
10335	1,1,2-Trichloroethane	79-00-5	< 5	5	5
10335	Trichloroethene	79-01-6	1,800	50	50
10335	Vinyl Chloride	75-01-4	8	5	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	5.6	5.0	1
07105	Ethene	74-85-1	6.9	5.0	1
07105	Methane	74-82-8	1,700	50	10
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	0.441	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	< 5.0	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	< 1.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.37	0.050	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 17:11	Daniel H Heller	5
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181361AA	05/16/2018 17:33	Daniel H Heller	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181361AA	05/16/2018 17:11	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181361AA	05/16/2018 17:33	Daniel H Heller	50
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280027A	05/08/2018 11:57	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280027A	05/09/2018 10:52	Johanna C Kennedy	10
01754	Iron	SW-846 6010B	1	181270184805	05/09/2018 16:18	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184805	05/08/2018 16:05	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/06/2018 00:52	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 01:28	Drew M Gerhart	1

Sample Description: **MP-12 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 13:49

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593565
ELLE Group #: 1939863
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	1

Sample Description: **MP-11 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 14:01

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593566
ELLE Group #: 1939863
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	4,300	100	100
10335	trans-1,2-Dichloroethene	156-60-5	21	10	10
10335	Methylene Chloride	75-09-2	< 10	10	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	2,300	10	10
10335	Vinyl Chloride	75-01-4	280	10	10
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	12	5.0	1
07105	Ethene	74-85-1	3,300	100	20
07105	Methane	74-82-8	7,100	100	20
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	16.3	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	10.5	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	62.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	22.1	5.0	100

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 02:16	Kevin D Kelly	10
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/16/2018 02:43	Kevin D Kelly	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/16/2018 02:16	Kevin D Kelly	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	P181351AA	05/16/2018 02:43	Kevin D Kelly	100
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280027A	05/08/2018 12:13	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181280027A	05/09/2018 11:07	Johanna C Kennedy	20
01754	Iron	SW-846 6010B	1	181270184806	05/10/2018 18:41	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181270184806	05/08/2018 21:00	Annamaria Kuhns	1
00228	Sulfate	EPA 300.0	1	18125265115B	05/06/2018 01:09	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18128667602B	05/10/2018 01:42	Drew M Gerhart	1

Sample Description: **MP-11 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 14:01

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593566
ELLE Group #: 1939863
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18125834401A	05/05/2018 05:40	Daniel S Smith	100

Sample Description: **TB Water**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 05/04/2018 09:55
Collection Date/Time: 05/03/2018 14:01

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9593567
ELLE Group #: 1939863
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	P181351AA	05/15/2018 18:30	Kevin D Kelly	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P181351AA	05/15/2018 18:30	Kevin D Kelly	1

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1939863
Reported: 05/17/2018 17:22

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ug/l	ug/l
Batch number: P181351AA	Sample number(s): 9593558,9593560-9593563,9593566-9593567	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: P181361AA	Sample number(s): 9593559,9593564-9593565	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: 181280026A	Sample number(s): 9593558-9593563	
Ethane	< 5.0	5.0
Ethene	< 5.0	5.0
Methane	< 5.0	5.0
Batch number: 181280027A	Sample number(s): 9593564-9593566	
Ethane	< 5.0	5.0
Ethene	< 5.0	5.0
Methane	< 5.0	5.0
	mg/l	mg/l
Batch number: 181270184805	Sample number(s): 9593558-9593565	
Iron	< 0.200	0.200
Batch number: 181270184806	Sample number(s): 9593566	
Iron	< 0.200	0.200
Batch number: 18125265115B	Sample number(s): 9593558-9593566	
Sulfate	< 1.0	1.0
Batch number: 18128667602A	Sample number(s): 9593558	
Total Organic Carbon	< 1.0	1.0
Batch number: 18128667602B	Sample number(s): 9593559-9593566	
Total Organic Carbon	< 1.0	1.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 05/17/2018 17:22

Group Number: 1939863

Method Blank (continued)

Analysis Name	Result	LOQ
	mg/l	mg/l
Batch number: 18125834401A	Sample number(s): 9593558-9593566	
Ferrous Iron	< 0.050	0.050

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: P181351AA	Sample number(s): 9593558,9593560-9593563,9593566-9593567								
1,1-Dichloroethene	20	22.01			110		80-131		
cis-1,2-Dichloroethene	20	21.05			105		80-120		
trans-1,2-Dichloroethene	20	21.27			106		80-120		
Methylene Chloride	20	21.14			106		80-120		
1,1,2-Trichloroethane	20	20.77			104		80-120		
Trichloroethene	20	19.98			100		80-120		
Vinyl Chloride	20	20.24			101		68-120		
Batch number: P181361AA	Sample number(s): 9593559,9593564-9593565								
1,1-Dichloroethene	20	20.65			103		80-131		
cis-1,2-Dichloroethene	20	19.71			99		80-120		
trans-1,2-Dichloroethene	20	19.88			99		80-120		
Methylene Chloride	20	19			95		80-120		
1,1,2-Trichloroethane	20	21.4			107		80-120		
Trichloroethene	20	18.29			91		80-120		
Vinyl Chloride	20	20.2			101		68-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 181280026A	Sample number(s): 9593558-9593563								
Ethane	58.4	60.32			103		85-115		
Ethene	60.8	62.38			103		83-115		
Methane	59.8	63.78			107		85-115		
Batch number: 181280027A	Sample number(s): 9593564-9593566								
Ethane	58.4	65.48	58.4	66.05	112	113	85-115	1	20
Ethene	60.8	66.31	60.8	67.16	109	110	83-115	1	20
Methane	59.8	65.98	59.8	66.6	110	111	85-115	1	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 181270184805	Sample number(s): 9593558-9593565								
Iron	1.00	0.968			97		80-114		
Batch number: 181270184806	Sample number(s): 9593566								
Iron	1.00	1.10			110		80-114		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 05/17/2018 17:22

Group Number: 1939863

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l					
Batch number: 18125265115B	Sample number(s): 9593558-9593566								
Sulfate	7.50	7.06			94		90-110		
Batch number: 18128667602A	Sample number(s): 9593558								
Total Organic Carbon	25	25.27			101		91-113		
Batch number: 18128667602B	Sample number(s): 9593559-9593566								
Total Organic Carbon	25	25.27			101		91-113		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 18125834401A	Sample number(s): 9593558-9593566								
Ferrous Iron	0.400	0.388			97		93-105		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: P181351AA	Sample number(s): 9593558,9593560-9593563,9593566-9593567 UNSPK: 9593560									
1,1-Dichloroethene	1.09	20	21.9	20	26.04	104	125	80-131	17	30
cis-1,2-Dichloroethene	444.06	20	330.52	20	389.89	-567 (2)	-270 (2)	80-120	16	30
trans-1,2-Dichloroethene	13.85	20	32.29	20	36.55	92	114	80-120	12	30
Methylene Chloride	< 1	20	18.91	20	22.69	95	113	80-120	18	30
1,1,2-Trichloroethane	< 1	20	19.51	20	22.93	98	115	80-120	16	30
Trichloroethene	1.75	20	20.18	20	22.7	92	105	80-120	12	30
Vinyl Chloride	51.54	20	74.53	20	77.46	115	130*	68-120	4	30
Batch number: P181361AA	Sample number(s): 9593559,9593564-9593565 UNSPK: P599748									
1,1-Dichloroethene	< 1	20	22.35	20	22.8	112	114	80-131	2	30
cis-1,2-Dichloroethene	< 1	20	21	20	21.62	105	108	80-120	3	30
trans-1,2-Dichloroethene	< 1	20	20.62	20	20.8	103	104	80-120	1	30
Methylene Chloride	< 1	20	19.93	20	20.15	100	101	80-120	1	30
1,1,2-Trichloroethane	< 1	20	22.69	20	22.77	113	114	80-120	0	30
Trichloroethene	< 1	20	20.69	20	20.61	103	103	80-120	0	30
Vinyl Chloride	< 1	20	22.66	20	22.75	113	114	68-120	0	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 181280026A	Sample number(s): 9593558-9593563 UNSPK: P595814									

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1939863
Reported: 05/17/2018 17:22

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Ethane	93.29	58.4	142.54	58.4	140.25	84	80	74-131	2	30
Ethene	34.52	60.8	112.19	60.8	109.79	128	124	72-133	2	30
Methane	3835.59	59.8	3279.93	59.8	3176.38	-928 (2)	-1101 (2)	73-125	3	30
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 181270184805	Sample number(s): 9593558-9593565 UNSPK: 9593565									
Iron	0.441	1.00	1.48	1.00	1.47	104	103	75-125	0	20
Batch number: 181270184806	Sample number(s): 9593566 UNSPK: 9593566									
Iron	16.29	1.00	17.23	1.00	17.21	95 (2)	93 (2)	75-125	0	20
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 18125265115B	Sample number(s): 9593558-9593566 UNSPK: 9593558									
Sulfate	2.98	25	27.14			97		90-110		
Batch number: 18128667602A	Sample number(s): 9593558 UNSPK: P594046									
Total Organic Carbon	< 1.0	10	10.76			108		91-113		
Batch number: 18128667602B	Sample number(s): 9593559-9593566 UNSPK: P594709									
Total Organic Carbon	8.83	10	18.36			95		91-113		
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 18125834401A	Sample number(s): 9593558-9593566 UNSPK: 9593566									
Ferrous Iron	22.13	40	54.71	40	56.61	81*	86*	93-105	3	6

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	**mg/l**		
Batch number: 181270184805	Sample number(s): 9593558-9593565 BKG: 9593565			
Iron	0.441	0.407	8 (1)	20
Batch number: 181270184806	Sample number(s): 9593566 BKG: 9593566			
Iron	16.29	16.21	0	20
	mg/l	**mg/l**		
Batch number: 18125265115B	Sample number(s): 9593558-9593566 BKG: 9593558			
Sulfate	2.98	3.04	2 (1)	15

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1939863
Reported: 05/17/2018 17:22

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Batch number: 18128667602A	Sample number(s): 9593558 BKG: P594046			
Total Organic Carbon	< 1.0	0.654	200* (1)	9
Batch number: 18128667602B	Sample number(s): 9593559-9593566 BKG: P594709			
Total Organic Carbon	8.83	8.69	2	9
	mg/l	mg/l		
Batch number: 18125834401A	Sample number(s): 9593558-9593566 BKG: 9593566			
Ferrous Iron	22.13	18.54	18* (1)	6

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: P181351AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9593558	97	101	113	108
9593560	100	100	109	108
9593561	97	97	115	107
9593562	95	95	114	106
9593563	97	98	114	105
9593566	98	101	114	107
9593567	98	96	109	105
Blank	99	97	111	107
LCS	100	101	103	102
MS	101	101	105	103
MSD	99	102	104	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: P181361AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9593559	97	98	114	105
9593564	100	103	113	106
9593565	97	96	113	105
Blank	99	101	113	107
LCS	98	98	108	102
MS	99	102	107	101
MSD	99	102	108	103

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1939863
Reported: 05/17/2018 17:22

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: P181361AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 181280026A

	Propene
9593558	105
9593559	91
9593560	94
9593561	70
9593562	77
9593563	96
Blank	109
LCS	110
MS	92
MSD	91
Limits:	57-128

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 181280027A

	Propene
9593564	75
9593565	80
9593566	82
Blank	105
LCS	105
LCSD	107
Limits:	57-128

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 435 Group # 1939863 Sample # 9593558-67

COC # 548653

Client Information

Client: Haley and Aldrich

Acct. #:

Project Name/#: Former General Time

PWSID #:

Project Manager: Naji Alla

P.O. #: 128752-0004

Sampler: J. Yonts S. Lewis

Quote #:

State where samples were collected: GA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation Codes: H | - | H | N | O | H

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	VOCs*	Sulfate	Iron, Ferrous	Iron, total	TOC	Methane, Ethane, Ethene
MP-9	5/3/18	834	X		10	X	X	X	X	X	X
MP-7		849	X		10	X	X	X	X	X	X
MP-3		931	X		10	X	X	X	X	X	X
MW-16I		946	X		10	X	X	X	X	X	X
MP-8		1024	X		10	X	X	X	X	X	X
MW-16D		1033	X		10	X	X	X	X	X	X
MP-10		1149	X		10	X	X	X	X	X	X
MP-12		1349	X		10	X	X	X	X	X	X
MP-11	↓	1401	X		10	X	X	X	X	X	X
TB		1401	X		2	X					

* Site COCs

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: 5/17/18

E-mail address: jyonts@haleyaldrich.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/3/18	1500			
				5/4/18	955

EDD Required? Yes No

If yes, format: ____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ✓ Other ____

Temperature upon receipt 0.8 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 215569

Group Number(s): 1939863

Client: Haley and Aldrich

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/04/2018 9:55
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	GA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Simon Nies (25112) at 16:07 on 05/04/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	0.8	DT	Wet	Y	Bagged	N
2	DT42-03	1.0	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Report Date: July 23, 2018 15:30

Project: Former General Time

Account #: 00435
Group Number: 1965477
SDG: CAR26
PO Number: 128752-007
State of Sample Origin: GA

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

Electronic Copy To	Haley Aldrich	Attn: Shawn Lewis
Electronic Copy To	Carpenter Technology Corp.-PA	Attn: Mike Reichardt
Electronic Copy To	Carpenter Technology Corp.	Attn: Amie Chafin

Respectfully Submitted,

Jordan Zito
Project Manager

(717) 556-7289

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-16D Grab Groundwater	07/11/2018 09:24	9701900
MW-16I Grab Groundwater	07/11/2018 09:25	9701901
MP-7 Grab Groundwater	07/11/2018 10:23	9701902
MP-3 Grab Groundwater	07/11/2018 10:26	9701903
MP-9 Grab Groundwater	07/11/2018 11:11	9701904
MP-8 Grab Groundwater	07/11/2018 11:21	9701905
UCMW-2 Grab Groundwater	07/11/2018 12:16	9701906
MP-11 Grab Groundwater	07/11/2018 12:19	9701907
MP-12 Grab Groundwater	07/11/2018 15:17	9701908
MP-10 Grab Groundwater	07/11/2018 15:29	9701909
Trip Blank Water	07/11/2018	9701910

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **MW-16D Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 09:24
SDG#: CAR26-01

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701900
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	78	1	1
10335	trans-1,2-Dichloroethene	156-60-5	2	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	200	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	< 5.0	5.0	1
07105	Methane	74-82-8	16	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	1.22	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	8.5	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	< 1.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.87	0.25	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 21:31	Patrick T Herres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/17/2018 21:31	Patrick T Herres	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 14:37	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:22	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 16:18	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667605B	07/18/2018 13:57	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	5

Sample Description: **MW-16I Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 09:25
SDG#: CAR26-02

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701901
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	20	10	10
10335	trans-1,2-Dichloroethene	156-60-5	< 10	10	10
10335	Methylene Chloride	75-09-2	< 10	10	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	< 10	10	10
10335	Vinyl Chloride	75-01-4	< 10	10	10
	Reporting limits were raised due to sample foaming.				
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	16	5.0	1
07105	Ethene	74-85-1	250	5.0	1
07105	Methane	74-82-8	2,400	100	20
	A preserved vial was submitted for analysis. However, the pH at the time of the Ethane and Ethene analysis was 6.				
	A preserved vial was submitted for analysis. However, the pH at the time of the methane analysis was 7.				
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	203	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	11.4	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	7,100	500	500
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	185	20.0	400

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Organic Carbon

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: **MW-16I Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 09:25
SDG#: CAR26-02

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701901
ELLE Group #: 1965477
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 22:19	Patrick T Herres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/17/2018 22:19	Patrick T Herres	10
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 14:55	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/17/2018 16:53	Johanna C Kennedy	20
01754	Iron	SW-846 6010B	1	182000184801	07/22/2018 23:39	Xavier Arroyo	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	182000184801	07/20/2018 05:10	James L Mertz	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/17/2018 22:35	Hallie A Burnett	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667605B	07/18/2018 14:12	Drew M Gerhart	500
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	400

Sample Description: **MP-7 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 10:23
SDG#: CAR26-03

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701902
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	4,200	100	100
10335	trans-1,2-Dichloroethene	156-60-5	24	10	10
10335	Methylene Chloride	75-09-2	< 10	10	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	3,600	100	100
10335	Vinyl Chloride	75-01-4	160	10	10
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	430	25	5
07105	Methane	74-82-8	1,600	25	5
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	32.8	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	16.6	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	37.4	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	31.9	10.0	200

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 22:43	Patrick T Herres	10
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 23:07	Patrick T Herres	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/17/2018 22:43	Patrick T Herres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181981AA	07/17/2018 23:07	Patrick T Herres	100
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 15:15	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/17/2018 17:30	Johanna C Kennedy	5
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:24	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 17:43	Kianat Zamir	5

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Sample Description: **MP-7 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 10:23
SDG#: CAR26-03

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701902
ELLE Group #: 1965477
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667605B	07/18/2018 14:27	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	200

Sample Description: **MP-3 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 10:26
SDG#: CAR26-04

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701903
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	200	1	1
10335	trans-1,2-Dichloroethene	156-60-5	8	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	23	1	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	45	5.0	1
07105	Ethene	74-85-1	130	5.0	1
07105	Methane	74-82-8	14,000	500	100
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	1.74	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	< 5.0	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	119	10.0	10
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	2.2	0.50	10

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 23:31	Patrick T Herres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/17/2018 23:31	Patrick T Herres	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 15:34	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/17/2018 17:49	Johanna C Kennedy	100
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:27	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 18:00	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667605B	07/18/2018 14:42	Drew M Gerhart	10
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	10

Sample Description: **MP-9 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 11:11
SDG#: CAR26-05

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701904
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 10	10	10
10335	cis-1,2-Dichloroethene	156-59-2	1,900	10	10
10335	trans-1,2-Dichloroethene	156-60-5	10	10	10
10335	Methylene Chloride	75-09-2	< 10	10	10
10335	1,1,2-Trichloroethane	79-00-5	< 10	10	10
10335	Trichloroethene	79-01-6	5,600	100	100
10335	Vinyl Chloride	75-01-4	18	10	10
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	< 5.0	5.0	1
07105	Methane	74-82-8	20	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	< 0.200	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	< 5.0	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	< 1.0	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.12	0.050	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 00:29	Patrick T Herres	10
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 00:54	Patrick T Herres	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/18/2018 00:29	Patrick T Herres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181981AA	07/18/2018 00:54	Patrick T Herres	100
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 15:53	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:30	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 18:17	Kianat Zamir	5
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 02:09	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	1

Sample Description: **MP-8 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 11:21
SDG#: CAR26-06

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701905
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 50	50	50
10335	cis-1,2-Dichloroethene	156-59-2	20,000	500	500
10335	trans-1,2-Dichloroethene	156-60-5	120	50	50
10335	Methylene Chloride	75-09-2	< 50	50	50
10335	1,1,2-Trichloroethane	79-00-5	< 50	50	50
10335	Trichloroethene	79-01-6	360	50	50
10335	Vinyl Chloride	75-01-4	900	50	50
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	940	50	10
07105	Methane	74-82-8	140	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	32.9	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	20.4	10.0	10
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	221	10.0	10
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	33.7	10.0	200

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 01:18	Patrick T Herres	50
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 01:42	Patrick T Herres	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/18/2018 01:18	Patrick T Herres	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181981AA	07/18/2018 01:42	Patrick T Herres	500
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 16:13	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/17/2018 18:08	Johanna C Kennedy	10
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:32	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 18:35	Kianat Zamir	10

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Sample Description: **MP-8 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 11:21
SDG#: CAR26-06

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701905
ELLE Group #: 1965477
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 14:58	Drew M Gerhart	10
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	200

Sample Description: **UCMW-2 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 12:16
SDG#: CAR26-07

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701906
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	110	100	100
10335	cis-1,2-Dichloroethene	156-59-2	3,300	100	100
10335	trans-1,2-Dichloroethene	156-60-5	< 100	100	100
10335	Methylene Chloride	75-09-2	150	100	100
10335	1,1,2-Trichloroethane	79-00-5	< 100	100	100
10335	Trichloroethene	79-01-6	110,000	1,000	1000
10335	Vinyl Chloride	75-01-4	< 100	100	100
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	< 5.0	5.0	1
07105	Methane	74-82-8	49	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	0.425	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	342	50.0	50
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	13.6	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.30	0.050	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 02:06	Patrick T Herres	100
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 02:30	Patrick T Herres	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/18/2018 02:06	Patrick T Herres	100
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181981AA	07/18/2018 02:30	Patrick T Herres	1000
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 16:32	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:36	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 18:52	Kianat Zamir	50
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 02:40	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	1

Sample Description: **MP-11 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 12:19
SDG#: CAR26-08

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701907
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	5	5	5
10335	cis-1,2-Dichloroethene	156-59-2	2,900	50	50
10335	trans-1,2-Dichloroethene	156-60-5	23	5	5
10335	Methylene Chloride	75-09-2	< 5	5	5
10335	1,1,2-Trichloroethane	79-00-5	< 5	5	5
10335	Trichloroethene	79-01-6	1,400	5	5
10335	Vinyl Chloride	75-01-4	370	5	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	9.6	5.0	1
07105	Ethene	74-85-1	4,000	250	50
07105	Methane	74-82-8	9,300	250	50
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	24.8	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	7.2	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	30.1	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	23.5	10.0	200

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 02:54	Patrick T Herres	5
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 03:18	Patrick T Herres	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/18/2018 02:54	Patrick T Herres	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181981AA	07/18/2018 03:18	Patrick T Herres	50
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/16/2018 16:51	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970006A	07/17/2018 18:27	Johanna C Kennedy	50
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:38	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 19:43	Kianat Zamir	5

Sample Description: **MP-11 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 12:19
SDG#: CAR26-08

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701907
ELLE Group #: 1965477
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 02:56	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	200

Sample Description: **MP-12 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 15:17
SDG#: CAR26-09

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701908
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 5	5	5
10335	cis-1,2-Dichloroethene	156-59-2	700	5	5
10335	trans-1,2-Dichloroethene	156-60-5	< 5	5	5
10335	Methylene Chloride	75-09-2	< 5	5	5
10335	1,1,2-Trichloroethane	79-00-5	< 5	5	5
10335	Trichloroethene	79-01-6	1,700	50	50
10335	Vinyl Chloride	75-01-4	8	5	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	5.9	5.0	1
07105	Ethene	74-85-1	6.8	5.0	1
07105	Methane	74-82-8	1,900	50	10
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	0.260	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	< 5.0	5.0	5
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	1.1	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	0.20	0.050	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/18/2018 04:44	Patrick T Herres	5
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181992AA	07/19/2018 01:07	Patrick T Herres	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/18/2018 04:44	Patrick T Herres	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181992AA	07/19/2018 01:07	Patrick T Herres	50
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970007A	07/16/2018 19:27	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970007A	07/17/2018 18:40	Johanna C Kennedy	10
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:46	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117A	07/14/2018 20:00	Kianat Zamir	5

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Sample Description: **MP-12 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 15:17
SDG#: CAR26-09

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701908
ELLE Group #: 1965477
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 03:11	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	1

Sample Description: **MP-10 Grab Groundwater**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018 15:29
SDG#: CAR26-10

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701909
ELLE Group #: 1965477
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	670	10	10
10335	trans-1,2-Dichloroethene	156-60-5	7	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	510	10	10
10335	Vinyl Chloride	75-01-4	16	1	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Ethane	74-84-0	< 5.0	5.0	1
07105	Ethene	74-85-1	6.2	5.0	1
07105	Methane	74-82-8	83	5.0	1
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	
01754	Iron	7439-89-6	16.6	0.200	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	147	10.0	10
	SM 5310 C-2011		**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	3.2	1.0	1
	SM 3500-Fe B-2011		**mg/l**	**mg/l**	
08344	Ferrous Iron	n.a.	13.5	5.0	100

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181992AA	07/19/2018 01:33	Patrick T Herres	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181992AA	07/19/2018 01:58	Patrick T Herres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181992AA	07/19/2018 01:33	Patrick T Herres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	W181992AA	07/19/2018 01:58	Patrick T Herres	10
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	181970007A	07/16/2018 19:44	Johanna C Kennedy	1
01754	Iron	SW-846 6010B	1	181980184801	07/20/2018 01:49	Jonathan J Allen	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	181980184801	07/19/2018 15:15	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	18195265117B	07/14/2018 23:42	Kianat Zamir	10
00273	Total Organic Carbon	SM 5310 C-2011	1	18198667606A	07/18/2018 03:26	Drew M Gerhart	1
08344	Ferrous Iron	SM 3500-Fe B-2011	1	18198834401A	07/17/2018 19:30	Daniel S Smith	100

Sample Description: **Trip Blank Water**
Carpenter Site - Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 07/13/2018 11:50
Collection Date/Time: 07/11/2018
SDG#: CAR26-11TB

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9701910
ELLE Group #: 1965477
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	W181981AA	07/17/2018 20:02	Patrick T Herres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W181981AA	07/17/2018 20:02	Patrick T Herres	1

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1965477
Reported: 07/23/2018 15:30

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ug/l	ug/l
Batch number: W181981AA	Sample number(s): 9701900-9701908,9701910	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: W181992AA	Sample number(s): 9701908-9701909	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: 181970006A	Sample number(s): 9701900-9701907	
Ethane	< 5.0	5.0
Ethene	< 5.0	5.0
Methane	< 5.0	5.0
Batch number: 181970007A	Sample number(s): 9701908-9701909	
Ethane	< 5.0	5.0
Ethene	< 5.0	5.0
Methane	< 5.0	5.0
	mg/l	mg/l
Batch number: 181980184801	Sample number(s): 9701900,9701902-9701909	
Iron	< 0.200	0.200
Batch number: 182000184801	Sample number(s): 9701901	
Iron	< 0.200	0.200
Batch number: 18195265117A	Sample number(s): 9701900-9701908	
Sulfate	< 1.0	1.0
Batch number: 18195265117B	Sample number(s): 9701909	
Sulfate	< 1.0	1.0
Batch number: 18198667605B	Sample number(s): 9701900-9701903	
Total Organic Carbon	< 1.0	1.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 07/23/2018 15:30

Group Number: 1965477

Method Blank (continued)

Analysis Name	Result	LOQ
	mg/l	mg/l
Batch number: 18198667606A	Sample number(s): 9701904-9701909	
Total Organic Carbon	< 1.0	1.0
Batch number: 18198834401A	Sample number(s): 9701900-9701909	
Ferrous Iron	< 0.050	0.050

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: W181981AA	Sample number(s): 9701900-9701908,9701910								
1,1-Dichloroethene	20	22.89	20	22.41	114	112	80-131	2	30
cis-1,2-Dichloroethene	20	20.05	20	20.29	100	101	80-120	1	30
trans-1,2-Dichloroethene	20	20.4	20	20.1	102	101	80-120	1	30
Methylene Chloride	20	21.68	20	21.71	108	109	80-120	0	30
1,1,2-Trichloroethane	20	19.22	20	19.48	96	97	80-120	1	30
Trichloroethene	20	19.72	20	19.44	99	97	80-120	1	30
Vinyl Chloride	20	16.31	20	16.17	82	81	68-120	1	30
Batch number: W181992AA	Sample number(s): 9701908-9701909								
1,1-Dichloroethene	20	22.13	20	22.06	111	110	80-131	0	30
cis-1,2-Dichloroethene	20	19.64	20	20.15	98	101	80-120	3	30
trans-1,2-Dichloroethene	20	19.59	20	20.43	98	102	80-120	4	30
Methylene Chloride	20	20.85	20	21.27	104	106	80-120	2	30
1,1,2-Trichloroethane	20	19.64	20	19.46	98	97	80-120	1	30
Trichloroethene	20	19	20	19.11	95	96	80-120	1	30
Vinyl Chloride	20	16.67	20	16.7	83	84	68-120	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 181970006A	Sample number(s): 9701900-9701907								
Ethane	58.4	59.61	58.4	60.59	102	104	85-115	2	20
Ethene	60.8	61.74	60.8	62.3	102	102	83-115	1	20
Methane	59.8	61.23	59.8	63.85	102	107	85-115	4	20
Batch number: 181970007A	Sample number(s): 9701908-9701909								
Ethane	58.4	61.94	58.4	62.52	106	107	85-115	1	20
Ethene	60.8	62.06	60.8	62.54	102	103	83-115	1	20
Methane	59.8	60.96	59.8	61.06	102	102	85-115	0	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 181980184801	Sample number(s): 9701900,9701902-9701909								
Iron	1.00	0.906			91		80-114		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1965477
Reported: 07/23/2018 15:30

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 182000184801	Sample number(s): 9701901								
Iron	1.00	0.978			98		80-114		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 18195265117A	Sample number(s): 9701900-9701908								
Sulfate	7.50	7.55			101		90-110		
Batch number: 18195265117B	Sample number(s): 9701909								
Sulfate	7.50	7.55			101		90-110		
Batch number: 18198667605B	Sample number(s): 9701900-9701903								
Total Organic Carbon	25	25.19			101		91-113		
Batch number: 18198667606A	Sample number(s): 9701904-9701909								
Total Organic Carbon	25	25.71			103		91-113		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 18198834401A	Sample number(s): 9701900-9701909								
Ferrous Iron	0.400	0.398			100		93-105		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18195265117A	Sample number(s): 9701900-9701908 UNSPK: 9701900									
Sulfate	8.54	25	34.72			105		90-110		
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 18198834401A	Sample number(s): 9701900-9701909 UNSPK: 9701909									
Ferrous Iron	13.54	40	50.93	40	51.83	93	96	93-105	2	6

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1965477
Reported: 07/23/2018 15:30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Batch number: 18195265117A	Sample number(s): 9701900-9701908 BKG: 9701900			
Sulfate	8.54	8.51	0 (1)	15
	mg/l	mg/l		
Batch number: 18198834401A	Sample number(s): 9701900-9701909 BKG: 9701909			
Ferrous Iron	13.54	14.14	4 (1)	6

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: W181981AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9701900	103	104	97	94
9701901	104	105	95	95
9701902	106	103	97	95
9701903	104	103	95	94
9701904	105	102	97	95
9701905	105	107	96	95
9701906	106	107	97	95
9701907	105	105	97	97
9701908	105	103	97	97
9701910	102	103	96	97
Blank	102	103	96	96
LCS	101	98	98	102
LCSD	102	100	99	102
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: W181992AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9701909	103	105	99	96
Blank	98	101	99	98
LCS	100	100	101	103
LCSD	101	103	101	104
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1965477
Reported: 07/23/2018 15:30

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 181970006A

	Propene
9701900	100
9701901	60
9701902	78
9701903	83
9701904	90
9701905	73
9701906	70
9701907	82
Blank	107
LCS	101
LCSD	106
Limits:	57-128

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 181970007A

	Propene
9701908	79
9701909	78
Blank	93
LCS	93
LCSD	93
Limits:	57-128

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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Acct. # 435 Group # 196577 Sample # 971900-10

COC # 552313

Client Information

Client: Haley Aldrich	Acct. #:
Project Name/#: Former General Time Facility	PWSID #:
Project Manager: Naji Alla	P.O. #: 128752-007
Sampler: J. Yonts, S. Lewis	Quote #:
State where samples were collected: GA	For Compliance: Yes ☐ No ☐

For Lab Use Only

FSC:

SCR#: 227550

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	NPDES	Surface	Other:	Total # of Containers	VOCs* (H)	Iron (N)	Ferrous Iron (H)	Sulfate (O)	Methane, Ethane, Ethene (H)	Total Organic Carbon (O)	Remarks
MW-16D	7/11/18	924	X					GW					10	X	X	X	X	X	X	*Site specific VOCs
MW-16I	7/11/18	925	X					GW					10	X	X	X	X	X	X	- Run trip blank
MP-7	7/11/18	1023	X					GW					10	X	X	X	X	X	X	
MP-3	7/11/18	1026	X					GW					10	X	X	X	X	X	X	
MP-9	7/11/18	1111	X					GW					10	X	X	X	X	X	X	
MP-8	7/11/18	1121	X					GW					10	X	X	X	X	X	X	
UCMW-2	7/11/18	1216	X					GW					10	X	X	X	X	X	X	
MP-11	7/11/18	1219	X					GW					10	X	X	X	X	X	X	
MP-12	7/11/18	1517	X					GW					10	X	X	X	X	X	X	
MP-10	7/11/18	1529	X					GW					10	X	X	X	X	X	X	

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed:

E-mail address: jyonts@haleyaldrich.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Chelsia West	7/12/18	8:39		7/10/18	1500
	7/12/18	1611	Leen Lewis	7/12/18	1611
Leen Lewis	7/12/18	1700			
				7/13/18	11:50

EDD Required? Yes No

If yes, format:

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS FedEx X Other

Temperature upon receipt -0.2-0.6 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 221502

Group Number(s): 1965477

Client: Haley Aldrich

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	07/13/2018 11:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	GA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	Yes
Samples Chilled:	Yes	VOA IDs (≥ 6mm):	See Below
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

VOA Vial IDs (Headspace ≥ 6mm): Trip Blank (both vials)

Unpacked by Zane Hollinger (10251) at 13:03 on 07/13/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	-0.2	IR	Wet	Y	Loose/Bag	N
2	DT146	0.6	DT	Wet	Y	Loose/Bag	N

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Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Carpenter Technology Corp.-PA
PO Box 14662
Reading PA 19612-4662

Report Date: September 06, 2018 18:04

Project: Former General Time

Account #: 00435
Group Number: 1979732
PO Number: 128752-006
State of Sample Origin: GA

Electronic Copy To	Carpenter Technology Corp.	Attn: Amie Chafin
Electronic Copy To	Carpenter Technology Corp.-PA	Attn: Mike Reichardt
Electronic Copy To	Haley Aldrich	Attn: Shawn Lewis

Respectfully Submitted,

Jordan Zito
Project Manager

(717) 556-7289

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-1S Grab Groundwater	08/20/2018 14:18	9768793
MW-1I Grab Groundwater	08/20/2018 14:08	9768794
MW-2S Grab Groundwater	08/22/2018 14:23	9768795
MW-2I Grab Groundwater	08/22/2018 14:22	9768796
MW-2D Grab Groundwater	08/21/2018 10:12	9768797
MW-3I Grab Groundwater	08/21/2018 11:24	9768798
MW-5I Grab Groundwater	08/22/2018 11:31	9768799
MW-6I Grab Groundwater	08/22/2018 11:18	9768800
MW-7I Grab Groundwater	08/21/2018 15:08	9768801
MW-8I Grab Groundwater	08/21/2018 16:10	9768802
MW-9I Grab Groundwater	08/21/2018 13:44	9768803
MW-9D Grab Groundwater	08/21/2018 13:51	9768804
MW-11S Grab Groundwater	08/22/2018 09:56	9768805
MW-11I Grab Groundwater	08/22/2018 09:12	9768806
MW-11D Grab Groundwater	08/22/2018 09:17	9768807
MW-16I Grab Groundwater	08/20/2018 15:17	9768808
MW-16D Grab Groundwater	08/20/2018 15:30	9768809
RW-3 Grab Groundwater	08/21/2018 09:06	9768810
RW-4 Grab Groundwater	08/21/2018 08:54	9768811
SW-1 Grab Groundwater	08/22/2018 10:15	9768812
SW-2 Grab Groundwater	08/22/2018 13:05	9768813
Trip Blank Water	08/22/2018 14:23	9768814
Field Blank Water	08/22/2018 14:23	9768815

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-1S Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/20/2018 14:18

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768793
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 14:17	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 14:17	Abigail Roselli	1

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Analysis Report

Sample Description: **MW-1I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/20/2018 14:08

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768794
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 14:40	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 14:40	Abigail Roselli	1

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Analysis Report

Sample Description: **MW-2S Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 14:23

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768795
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 15:44	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 15:44	Linda C Pape	1

Sample Description: **MW-2I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 14:22

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768796
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	710	50	50
10335	trans-1,2-Dichloroethene	156-60-5	13	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	3	1	1
10335	Trichloroethene	79-01-6	6,100	50	50
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 16:07	Linda C Pape	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182461AA	09/03/2018 16:39	Linda C Pape	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 16:07	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	4182461AA	09/03/2018 16:39	Linda C Pape	50

Sample Description: **MW-2D Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 10:12

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768797
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	3	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 15:48	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 15:48	Abigail Roselli	1

Sample Description: **MW-3I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 11:24

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768798
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 16:10	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 16:10	Abigail Roselli	1

Sample Description: **MW-5I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 11:31

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768799
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	3	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	83	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182461AA	09/03/2018 12:53	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182461AA	09/03/2018 12:53	Linda C Pape	1

Sample Description: **MW-6I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 11:18

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768800
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	27	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	280	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 16:52	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 16:52	Linda C Pape	1

Sample Description: **MW-7I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 15:08

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768801
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	2	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	2	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 16:33	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 16:33	Abigail Roselli	1

Sample Description: **MW-8I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 16:10

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768802
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 16:56	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 16:56	Abigail Roselli	1

Sample Description: **MW-9I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 13:44

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768803
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	54	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	680	10	10
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 17:18	Abigail Roselli	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182422AA	08/31/2018 00:33	Patrick T Herres	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 17:18	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	4182422AA	08/31/2018 00:33	Patrick T Herres	10

Sample Description: **MW-9D Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 13:51

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768804
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 17:41	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 17:41	Abigail Roselli	1

Sample Description: **MW-11S Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 09:56

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768805
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	28	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	140	1	1
10335	Vinyl Chloride	75-01-4	1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 17:15	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 17:15	Linda C Pape	1

Sample Description: **MW-11I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 09:12

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768806
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	34	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	330	10	10
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 17:37	Linda C Pape	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182461AA	09/03/2018 17:01	Linda C Pape	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 17:37	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	4182461AA	09/03/2018 17:01	Linda C Pape	10

Sample Description: **MW-11D Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 09:17

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768807
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182461AA	09/03/2018 13:15	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182461AA	09/03/2018 13:15	Linda C Pape	1

Sample Description: **MW-16I Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/20/2018 15:17

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768808
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 20	20	20
10335	cis-1,2-Dichloroethene	156-59-2	24	20	20
10335	trans-1,2-Dichloroethene	156-60-5	< 20	20	20
10335	Methylene Chloride	75-09-2	< 20	20	20
10335	1,1,2-Trichloroethane	79-00-5	< 20	20	20
10335	Trichloroethene	79-01-6	< 20	20	20
10335	Vinyl Chloride	75-01-4	< 20	20	20

Reporting limits were raised due to sample foaming.

A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182422AA	08/31/2018 00:56	Patrick T Herres	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182422AA	08/31/2018 00:56	Patrick T Herres	20

Sample Description: **MW-16D Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/20/2018 15:30

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768809
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	77	1	1
10335	trans-1,2-Dichloroethene	156-60-5	2	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	190	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182421AA	08/30/2018 15:25	Abigail Roselli	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182421AA	08/30/2018 15:25	Abigail Roselli	1

Sample Description: **RW-3 Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 09:06

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768810
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	21	1	1
10335	cis-1,2-Dichloroethene	156-59-2	710	50	50
10335	trans-1,2-Dichloroethene	156-60-5	43	1	1
10335	Methylene Chloride	75-09-2	2	1	1
10335	1,1,2-Trichloroethane	79-00-5	2	1	1
10335	Trichloroethene	79-01-6	7,700	50	50
10335	Vinyl Chloride	75-01-4	2	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182422AA	08/31/2018 01:18	Patrick T Herres	1
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 19:08	Linda C Pape	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182422AA	08/31/2018 01:18	Patrick T Herres	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	4182431AA	08/31/2018 19:08	Linda C Pape	50

Sample Description: **RW-4 Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/21/2018 08:54

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768811
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	2	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 11:58	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 11:58	Linda C Pape	1

Sample Description: **SW-1 Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 10:15

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768812
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 18:23	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 18:23	Linda C Pape	1

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Sample Description: **SW-2 Grab Groundwater**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 13:05

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768813
ELLE Group #: 1979732
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 18:46	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 18:46	Linda C Pape	1

Sample Description: **Trip Blank Water**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 14:23

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768814
ELLE Group #: 1979732
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 11:13	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 11:13	Linda C Pape	1

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Sample Description: **Field Blank Water**
Former General Time- Athens, GA

Project Name: **Former General Time**

Submittal Date/Time: 08/23/2018 10:15
Collection Date/Time: 08/22/2018 14:23

Carpenter Technology Corp.-PA
ELLE Sample #: WW 9768815
ELLE Group #: 1979732
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	1,1-Dichloroethene	75-35-4	< 1	1	1
10335	cis-1,2-Dichloroethene	156-59-2	< 1	1	1
10335	trans-1,2-Dichloroethene	156-60-5	< 1	1	1
10335	Methylene Chloride	75-09-2	< 1	1	1
10335	1,1,2-Trichloroethane	79-00-5	< 1	1	1
10335	Trichloroethene	79-01-6	< 1	1	1
10335	Vinyl Chloride	75-01-4	< 1	1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	VOCs- 5ml Water by 8260B	SW-846 8260B	1	4182431AA	08/31/2018 11:35	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4182431AA	08/31/2018 11:35	Linda C Pape	1

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA Group Number: 1979732
Reported: 09/06/2018 18:04

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ug/l	ug/l
Batch number: 4182421AA	Sample number(s): 9768793-9768794,9768797-9768798,9768801-9768804,9768809	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: 4182422AA	Sample number(s): 9768803,9768808,9768810	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: 4182431AA	Sample number(s): 9768795-9768796,9768800,9768805-9768806,9768810-9768815	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1
Batch number: 4182461AA	Sample number(s): 9768796,9768799,9768806-9768807	
1,1-Dichloroethene	< 1	1
cis-1,2-Dichloroethene	< 1	1
trans-1,2-Dichloroethene	< 1	1
Methylene Chloride	< 1	1
1,1,2-Trichloroethane	< 1	1
Trichloroethene	< 1	1
Vinyl Chloride	< 1	1

LCS/LCSD

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/06/2018 18:04

Group Number: 1979732

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 4182421AA	Sample number(s): 9768793-9768794,9768797-9768798,9768801-9768804,9768809								
1,1-Dichloroethene	20	21.22			106		80-131		
cis-1,2-Dichloroethene	20	20.17			101		80-120		
trans-1,2-Dichloroethene	20	20.09			100		80-120		
Methylene Chloride	20	20.43			102		80-120		
1,1,2-Trichloroethane	20	19.67			98		80-120		
Trichloroethene	20	19.16			96		80-120		
Vinyl Chloride	20	17.77			89		56-120		
Batch number: 4182422AA	Sample number(s): 9768803,9768808,9768810								
1,1-Dichloroethene	20	19.98			100		80-131		
cis-1,2-Dichloroethene	20	18.46			92		80-120		
trans-1,2-Dichloroethene	20	18.94			95		80-120		
Methylene Chloride	20	18.86			94		80-120		
1,1,2-Trichloroethane	20	18.08			90		80-120		
Trichloroethene	20	18.04			90		80-120		
Vinyl Chloride	20	16.37			82		56-120		
Batch number: 4182431AA	Sample number(s): 9768795-9768796,9768800,9768805-9768806,9768810-9768815								
1,1-Dichloroethene	20	19.98			100		80-131		
cis-1,2-Dichloroethene	20	19.82			99		80-120		
trans-1,2-Dichloroethene	20	19.91			100		80-120		
Methylene Chloride	20	19.83			99		80-120		
1,1,2-Trichloroethane	20	19.47			97		80-120		
Trichloroethene	20	19.47			97		80-120		
Vinyl Chloride	20	18.13			91		56-120		
Batch number: 4182461AA	Sample number(s): 9768796,9768799,9768806-9768807								
1,1-Dichloroethene	20	19.77	20	20.17	99	101	80-131	2	30
cis-1,2-Dichloroethene	20	18.89	20	19.39	94	97	80-120	3	30
trans-1,2-Dichloroethene	20	18.83	20	19.59	94	98	80-120	4	30
Methylene Chloride	20	18.76	20	19.29	94	96	80-120	3	30
1,1,2-Trichloroethane	20	17.96	20	18.57	90	93	80-120	3	30
Trichloroethene	20	18.06	20	18.68	90	93	80-120	3	30
Vinyl Chloride	20	16.46	20	17.08	82	85	56-120	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/06/2018 18:04

Group Number: 1979732

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: 4182421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9768793	102	101	103	98
9768794	102	102	102	98
9768797	103	100	103	98
9768798	103	102	101	97
9768801	102	99	103	98
9768802	103	102	103	98
9768803	102	101	103	97
9768804	102	99	103	98
9768809	102	101	103	97
Blank	100	99	103	97
LCS	99	99	103	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: 4182422AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9768808	104	103	103	98
9768810	103	99	104	98
Blank	102	103	102	99
LCS	102	99	102	103
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: 4182431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9768795	104	102	102	97
9768796	103	102	103	96
9768800	104	102	102	98
9768805	104	99	103	96
9768806	105	100	103	96
9768811	104	99	102	96
9768812	106	103	102	97
9768813	105	99	102	96
9768814	103	101	102	97
9768815	103	98	102	97
Blank	102	101	103	99
LCS	103	100	102	101

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Carpenter Technology Corp.-PA
Reported: 09/06/2018 18:04

Group Number: 1979732

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: 4182431AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260B
Batch number: 4182461AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9768799	105	103	102	99
9768807	101	99	99	99
Blank	106	103	101	98
LCS	103	101	101	101
LCSD	103	102	101	101
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 00435 Group # 197732 Sample # 9768793-815

COC # 578529

Client Information

Client: Haley Aldrich

Acct. #:

Project Name/#: Former General Time

PWSID #:

Project Manager: Nagi Alla

P.O. #: 128752-0006

Sampler: J. Yonts S. Lewis

Quote #:

State where samples were collected: GA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water: Potable ☐ Ground ☒ Surface ☐ NPDES ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

H

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	* VOCs
MW-1S	8/20/18	1418	X		3	X
MW-1I	8/20/18	1408	X		3	X
MW-2S	8/22/18	1403	X		3	X
MW-2I	8/22/18	1422	X		3	X
MW-2D	8/21/18	1012	X		3	X
MW-3I	8/21/18	1124	X		3	X
MW-5I	8/22/18	1131	X		3	X
MW-6I	8/22/18	1118	X		3	X
MW-7I	8/21/18	1508	X		3	X
MW-8I	8/21/18	1610	X		3	X

+ site specific COCs

For Lab Use Only

FSC:

SCR#: 229919

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: jyonts@haleyaldrich.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)
Type VI (Raw Data Only)
Type III (Reduced non-CLP)
NJ DKQP
TX TRRP-13
NYSDEC Category A or B
MA MCP
CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Edwin Hernandez	8/16/18	1315			
	8/22/18	1525			
				8/23/18	1015

EDD Required? Yes No

If yes, format: ____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.9 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 00435 Group # 1974732 Sample # 9768743-815

COC # 578532

Client Information

Client: Haley Aldrich	Acct. #:
Project Name/#: Former General Time	PWSID #:
Project Manager: Nagi Alla	P.O. #: 128752-0006
Sampler: J. Yonts S. Lewis	Quote #:
State where samples were collected: GA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ Surface ☒ NPDES ☐ | Other: ___

Analysis Requested

Preservation and Filtration Codes

H

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix	Total # of Containers	VOCs*
MW-9I	8/21/18	1344	X		GW	3	X
MW-9D	8/21/18	1351	X		GW	3	X
MW-11S	8/22/18	956	X		GW	3	X
MW-11I	8/22/18	912	X		GW	3	X
MW-11D	8/22/18	917	X		GW	3	X
MW-16I	8/20/18	1517	X		GW	3	X
MW-16D	8/20/18	1530	X		GW	3	X
RW-3	8/21/18	906	X		GW	3	X
RW-4	8/21/18	854	X		GW	3	X
SW-1	8/22/18	1015	X		SW	3	X

*Site specific COCs

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: jyonts@haleyaldrich.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/22/18	1525			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by [signature]	8/23/18	1015

EDD Required? Yes No

If yes, format: _____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.9 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 00435 Group # 1474732 Sample # 976879 3-815

COC # 578530

Client Information

Client: Haley Aldrich	Acct. #:
Project Name/#: Former General Time	PWSID #:
Project Manager: Nagi Alla	P.O. #: 128752-006
Sampler: J. Yonts S. Lewis	Quote #:
State where samples were collected: GA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☒ Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Potable	Ground	NPDES	Surface	Other	Total # of Containers	H	VOCs*	Remarks
SW-2	8/22/18	1305	X					SW						3		X	*Site specific COCs
TB	8/22/18	1423	X					W						2		X	
FB	8/22/18	1423	X					W						3		X	

Turnaround Time (TAT) Requested (please circle)

(Standard) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: jyonts@haleyaldrich.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	8/22/18	1525			
				8.23.18	10:15

EDD Required? Yes No

If yes, format: ____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.9 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 225027

Group Number(s): 1979732

Client: Haley Aldrich

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/23/2018 10:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	GA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	Yes
Samples Chilled:	Yes	VOA IDs (≥ 6mm):	See Below
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

VOA Vial IDs (Headspace ≥ 6mm): MW-11D - 2 of 3, MW-16I- 3 OF 3,

Unpacked by Wanita Curry (14057) at 15:53 on 08/23/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	0.9	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

APPENDIX B

Field Sampling Forms

GROUNDWATER LEVEL MONITORING RECORD

Project Name	**Carpenter Technology Corporation**	Project Number	**128752-006**
City	**Athens**	Sampling Event	**Semi-Annual Groundwater Monitoring**
State	**GA**	Project Manager	**Nagi Alla**
Client Name	**Carpenter Technology Corporation**	Field Representative	**Sean Lewis|Jason Yonts**
Weather	**Cloudy, 80s °F**	Depth Units	**Feet**

Well Name	Measure Date	Measure Time	Meas. Point Elevation	Depth to Water	Groundwater Elevation	Measured Well Depth	Remarks
MW-1S	08/20/2018	11:50	641.30	6.53	634.77	9.28	-
MW-1I	08/20/2018	11:46	641.10	6.27	634.83	27.40	-
MW-2S	08/20/2018	11:59	637.30	15.76	621.54	22.67	-
MW-2I	08/20/2018	11:53	637.40	16.93	620.47	88.99	-
MW-2D	08/20/2018	11:25	635.50	20.99	614.51	NM	-
MW-3I	08/20/2018	11:13	639.70	15.37	624.33	103.24	-
MW-5I	08/20/2018	11:06	623.50	10.25	613.25	41.31	-
MW-6I	08/20/2018	11:01	622.80	8.34	614.46	73.47	-
MW-7I	08/20/2018	10:37	619.10	7.76	611.34	38.90	-
MW-8I	08/20/2018	10:46	618.70	8.12	610.58	17.68	-
MW-9I	08/20/2018	10:50	613.20	4.90	608.30	54.23	-
MW-9D	08/20/2018	11:00	613.40	7.76	605.64	NM	-
MW-11S	08/20/2018	10:29	611.00	8.15	602.85	14.60	-
MW-11I	08/20/2018	10:33	610.90	7.98	602.92	34.20	-
MW-11D	08/20/2018	10:34	611.90	8.54	603.36	NM	-
MW-16D	08/20/2018	12:08	643.60	18.13	625.47	59.25	-
MW-16I	08/20/2018	12:14	643.60	18.34	625.26	33.95	-
RW-1	08/20/2018	12:01	639.70	17.19	622.51	49.90	-
RW-2	08/20/2018	12:05	639.20	17.44	621.76	99.79	-
RW-3	08/20/2018	11:21	633.90	13.44	620.46	93.52	-
RW-4	08/20/2018	11:42	633.70	12.41	621.29	93.65	-

SURFACE WATER SAMPLE LOG

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Techology Corporation	**FIELD REP**	J. Yonts and S. Lewis
SUBCONTRACTOR	None	**DATE**	08/22/18

Sample ID	SW-1
Date	8/22/2018
Time	10:15
Weather	Sunny 70s F

DESCRIPTION OF SAMPLE LOCATION:

Name of Water Body	North Oconee River	Width (ft.)	25 to 35 feet
Depth of Water (ft.)	unknown	Velocity (ft./sec)	3 to 4 ft/sec

Other Comments: Water turbid, can't see the bottom. Appears to be elevated

Substrate Description: Sands and gravels

Location:

Description of Nearby Vegetation: Large trees and shrubs; wooded area

FIELD PARAMETERS:

Sample Method: Grab with disposable poly cup

Sample Description: Brown color

Temperature (°C)	24.84	pH (s.u.)	7.59
Dissolved Oxygen (mg/L)	11.74	Conductivity (mS/cm)	0.084
Turbidity (NTU)	54.2	ORP (mV)	-78

CONTAINER DESCRIPTION:

Laboratory: Eurofins

Bottle Type	Analysis	Preservative
40 mL VOA	VOCs*	HCl

Notes:

*Site specific COC

SURFACE WATER SAMPLE LOG

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Techology Corporation	**FIELD REP**	J. Yonts and S. Lewis
SUBCONTRACTOR	None	**DATE**	08/22/18

Sample ID	SW-2
Date	8/22/2018
Time	13:05
Weather	Sunny, 80s F

DESCRIPTION OF SAMPLE LOCATION:

Name of Water Body	North Oconee River	Width (ft.)	25 to 35 feet
Depth of Water (ft.)	unknown	Velocity (ft./sec)	3 to 4 ft/sec

Other Comments: Water turbid, can't see the bottom. Appears to be elevated

Substrate Description: Sands and gravels

Location:

Description of Nearby Vegetation: Large trees and shrubs; wooded area

FIELD PARAMETERS:

Sample Method: Grab with disposable poly cup

Sample Description: Brown color

Temperature (°C)	27.04	pH (s.u.)	6.71
Dissolved Oxygen (mg/L)	6.43	Conductivity (mS/cm)	0.089
Turbidity (NTU)	412	ORP (mV)	30

CONTAINER DESCRIPTION:

Laboratory: Eurofins

Bottle Type	Analysis	Preservative
40 mL VOA	VOCs*	HCl

Notes:

*Site specific COC

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/20/2018

Sampling Data:

Well ID:	MW-1S	Well Depth as Built:	14.50 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1339	Well Depth Measured:	- ft	Initial Depth To Water:	6.49 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1425	Depth To Top Of Screen:	9.50 ft	Depth Of Pump Intake:	12 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	14.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1343	6.60	-	150	0.0	30.97	8.72	0.090	3.56	172	-26	Sample for:
1348	6.64	-	150	0.8	30.61	6.50	0.088	2.23	157	24	VOCs* (Eurofins)
1353	6.64	-	150	1.5	30.25	6.11	0.078	1.95	142	32	
1358	6.64	-	150	2.3	30.04	5.95	0.065	1.90	129	37	Area near well disturbed by digging from construction
1403	6.65	-	150	3.0	29.86	5.85	0.056	2.04	116	49	
1408	6.65	-	150	3.8	29.76	5.73	0.051	2.02	105	64	No odor
1413	6.65	-	150	4.5	29.74	5.69	0.048	2.01	105	73	Clear water
1418	6.65	-	150	5.3	29.77	5.67	0.047	2.02	105	74	
Start sample											
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/20/2018

Sampling Data:

Well ID:	MW-1I	Well Depth as Built:	25.27 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1334	Well Depth Measured:	27.40 ft	Initial Depth To Water:	6.23 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1415	Depth To Top Of Screen:	15.27 ft	Depth Of Pump Intake:	20 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	25.27 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1338	6.30	150	-	0.0	28.81	6.49	0.135	9.17	0.0	107	Sample for:
1343	6.32	150	-	0.8	27.99	6.42	0.079	6.14	0.0	123	VOCs* (Eurofins)
1348	6.32	150	-	1.5	27.64	6.40	0.068	5.71	0.0	135	
1353	6.32	150	-	2.3	27.07	6.27	0.061	5.03	0.0	156	Area near well disturbed by digging from construction
1358	6.33	150	-	3.0	27.00	6.26	0.060	4.99	0.0	159	of new stormwater pipe
1403	6.33	150	-	3.8	26.97	6.27	0.060	4.98	0.0	161	
1408	6.33	150	-	4.5	26.97	6.27	0.060	4.98	0.0	161	Sample due to stable parameters
											No odor, clear water
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-2S	Well Depth as Built:	20.20 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1348	Well Depth Measured:	22.67 ft	Initial Depth To Water:	15.86 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1430	Depth To Top Of Screen:	10.20 ft	Depth Of Pump Intake:	18 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	20.20 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1353	16.08	150	-	0.0	34.23	5.91	0.128	3.73	72.5	141	Sample for:
1358	16.16	150	-	0.8	33.24	5.89	0.125	3.35	52.4	149	VOCs* (Eurofins)
1403	16.28	150	-	1.5	31.09	5.86	0.119	2.59	27.4	158	
1408	16.37	150	-	2.3	30.48	5.82	0.117	2.26	27.8	164	
1413	16.38	150	-	3.0	30.08	5.80	0.117	2.15	18.2	166	
1418	16.39	150	-	3.8	29.87	5.79	0.117	2.14	12.2	167	
1423	16.40	150	-	4.5	29.85	5.79	0.117	2.11	13.2	167	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-2I	Well Depth as Built:	86.50 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	1300	Well Depth Measured:	88.99 ft	Initial Depth To Water:	17.11 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1430	Depth To Top Of Screen:	76.50 ft	Depth Of Pump Intake:	80 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	86.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1352	19.11	-	300	0.0	23.56	6.86	0.083	11.81	0.0	69	Sample for:
1357	20.34	-	300	1.5	23.69	6.72	0.088	5.45	0.0	99	VOCs* (Eurofins)
1402	20.45	-	300	3.0	23.89	6.72	0.088	5.20	0.0	103	
1407	20.50	-	250	4.5	23.89	6.72	0.088	4.95	0.0	106	No odor
1412	20.55	-	250	6.0	23.89	6.72	0.088	4.79	0.0	108	Clear water
1417	20.61	-	250	7.5	24.03	6.69	0.088	4.56	0.0	110	
1422	20.64	-	250	9.0	24.04	6.67	0.088	4.47	0.0	112	Difficult to maintain stable pump rate due to drawdown
Start sample											Higher pump rate is needed to prevent the pump from
											stalling
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-2D	Well Depth as Built:	226.50 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	930	Well Depth Measured:	- ft	Initial Depth To Water:	12.22 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1020	Depth To Top Of Screen:	216.50 ft	Depth Of Pump Intake:	221 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	226.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
932	20.89	-	250	1.3	23.68	7.89	0.214	4.45	20.9	100	Sample for:
937	23.56	-	250	2.5	22.98	8.56	0.214	3.89	10.1	78	VOCs* (Eurofins)
942	25.01	-	250	3.8	22.01	9.40	0.214	3.36	0.0	66	
947	26.98	-	250	5.0	21.74	9.49	0.215	3.34	0.0	64	Clear water
952	28.59	-	250	6.3	21.75	9.51	0.215	3.29	0.0	64	No odor
957	29.35	-	250	7.5	21.78	9.52	0.215	3.24	0.0	63	
1002	30.08	-	250	8.8	21.83	9.54	0.215	3.20	0.0	61	
1007	31.95	-	250	10.0	21.89	9.57	0.215	3.18	0.0	59	
1012	32.87	-	250	11.3	21.97	9.58	0.215	3.17	0.0	58	
Start sample											
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-3I	Well Depth as Built:	99.25 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	1040	Well Depth Measured:	103.24 ft	Initial Depth To Water:	15.38 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1130	Depth To Top Of Screen:	89.25 ft	Depth Of Pump Intake:	95 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	99.25 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1044	15.57	400	-	0.0	24.39	8.81	0.094	7.79	183.0	93	Sample for:
1049	15.58	300	-	2.0	25.53	7.40	0.104	2.51	>1000	52	VOCs* (Eurofins)
1054	15.58	350	-	3.8	25.57	7.18	0.103	2.41	>1000	45	
1059	15.59	300	-	5.3	25.31	6.76	0.104	2.37	>1000	48	Problem well for turbidity
1104	15.59	300	-	6.8	25.39	6.67	0.104	2.31	889	47	
1109	16.00	300	-	8.3	25.17	6.64	0.102	2.16	687	44	
1114	16.00	300	-	9.8	25.73	6.59	0.103	2.16	271	45	
1119	16.01	300	-	11.3	25.75	6.55	0.102	2.15	267	45	
1124	16.01	300	-	12.8	25.77	6.55	0.102	2.16	265	45	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-5I	Well Depth as Built:	41.50 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1054	Well Depth Measured:	41.31 ft	Initial Depth To Water:	10.42 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1135	Depth To Top Of Screen:	31.50 ft	Depth Of Pump Intake:	35 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	41.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1056	10.56	-	200	1.0	26.94	7.04	0.116	8.90	0.0	6	Sample for:
1101	10.58	-	200	2.0	27.12	6.76	0.107	3.86	0.0	22	VOCs* (Eurofins)
1106	10.59	-	200	3.0	27.15	6.70	0.104	3.13	0.0	29	
1111	10.60	-	200	4.0	27.10	6.68	0.103	2.72	0.0	37	Clear water
1116	10.61	-	200	5.0	27.09	6.67	0.102	2.46	0.0	41	No odor
1121	10.62	-	200	6.0	27.15	6.67	0.102	2.27	0.0	46	
1126	10.62	-	200	7.0	27.16	6.67	0.102	2.20	0.0	47	
1131	10.63	-	200	8.0	27.19	6.67	0.102	2.17	0.0	48	
Start sample											
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-6I	Well Depth as Built:	70.91 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	1030	Well Depth Measured:	73.47 ft	Initial Depth To Water:	8.71 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1125	Depth To Top Of Screen:	60.91 ft	Depth Of Pump Intake:	65 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	70.91 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1033	9.25	350	-	0.0	24.24	5.53	0.084	1.90	>1000	150	Sample for:
1038	9.10	300	-	1.5	24.81	5.59	0.087	0.79	>1000	151	VOCs* (Eurofins)
1043	8.79	250	-	2.9	26.13	5.62	0.088	0.93	587.0	158	
1048	8.79	250	-	4.2	26.74	5.63	0.089	0.83	169.0	159	
1053	8.84	250	-	5.4	26.82	5.61	0.087	0.84	75.2	162	
1058	8.86	250	-	6.7	26.32	5.62	0.089	0.75	46.3	164	
1103	8.88	250	-	7.9	26.35	5.63	0.089	0.70	23.7	164	
1108	8.88	250	-	9.2	26.38	5.64	0.089	0.71	11.2	164	
1113	8.89	250	-	10.4	26.31	5.64	0.089	0.70	10.3	164	
1118	8.88	250	-	11.7	26.28	5.64	0.088	0.69	9.7	165	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-7I	Well Depth as Built:	36.50 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1429	Well Depth Measured:	38.90 ft	Initial Depth To Water:	7.99 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1515	Depth To Top Of Screen:	26.50 ft	Depth Of Pump Intake:	31 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	36.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1433	8.07	200	-	0.0	31.88	6.72	0.119	1.96	0.0	102	Sample for:
1438	8.11	200	-	1.0	29.52	6.56	0.117	0.90	0.0	113	VOCs* (Eurofins)
1443	8.13	200	-	2.0	28.17	6.51	0.119	0.75	0.0	115	
1448	8.14	200	-	3.0	27.78	6.49	0.118	0.67	0.0	116	
1453	8.14	200	-	4.0	27.23	6.48	0.119	0.62	0.0	117	
1458	8.15	200	-	5.0	26.82	6.46	0.119	0.60	0.0	118	
1503	8.15	200	-	6.0	26.78	6.45	0.119	0.59	0.0	118	
1508	8.15	200	-	7.0	26.69	6.44	0.119	0.58	0.0	118	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-8I	Well Depth as Built:	17.52 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1542	Well Depth Measured:	17.68 ft	Initial Depth To Water:	8.17 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1616	Depth To Top Of Screen:	7.52 ft	Depth Of Pump Intake:	12 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	17.52 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1545	8.68	200	-	0.0	32.68	6.34	0.287	2.18	0.0	129	Sample for:
1550	8.76	200	-	1.0	31.38	6.12	0.275	1.09	0.0	145	VOCs* (Eurofins)
1555	8.82	200	-	2.0	31.15	6.12	0.276	1.03	0.0	147	
1600	8.86	200	-	3.0	30.96	6.11	0.277	1.02	0.0	149	
1605	8.88	200	-	4.0	30.88	6.11	0.277	1.01	0.0	150	
1610	8.90	200	-	5.0	30.70	6.10	0.277	1.01	0.0	150	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-9I	Well Depth as Built:	54.50 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1309	Well Depth Measured:	54.23 ft	Initial Depth To Water:	5.03 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1350	Depth To Top Of Screen:	44.50 ft	Depth Of Pump Intake:	49 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	54.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1314	5.09	200	-	0.0	30.35	6.60	0.141	3.66	9.3	103	Sample for:
1319	5.09	200	-	1.0	28.83	6.52	0.142	3.12	1.1	113	VOCs* (Eurofins)
1324	5.09	200	-	2.0	28.33	6.49	0.142	2.95	2.4	118	
1329	5.10	200	-	3.0	28.08	6.46	0.142	2.93	2.4	121	
1334	5.10	200	-	4.0	27.72	6.45	0.142	2.77	0.0	125	
1339	5.11	200	-	5.0	27.71	6.45	0.143	2.74	0.0	126	
1344	5.11	200	-	6.0	27.71	6.45	0.143	2.72	0.0	127	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	MW-9D	Well Depth as Built:	201.50 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	1307	Well Depth Measured:	- ft	Initial Depth To Water:	0.63* ft	Field Parameter Device:	Horiba U-52
Finish Time:	1400	Depth To Top Of Screen:	181.50 ft	Depth Of Pump Intake:	190 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	201.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1311	3.43	-	300	0	26.94	8.10	0.194	3.64	0.0	-28	Sample for:
1316	4.98	-	250	1.5	27.49	8.31	0.192	2.35	0.0	-81	VOCs* (Eurofins)
1321	6.95	-	250	2.8	26.54	8.78	0.189	1.84	0.0	-115	
1326	8.87	-	250	4.0	26.75	8.92	0.188	1.49	0.0	-133	*Forgot to take water level before adding tubing,
1331	9.95	-	250	5.3	25.99	8.92	0.194	1.17	0.0	-139	this resulted in a high initial reading
1336	10.81	-	250	6.5	25.93	9.06	0.191	1.25	0.0	-145	
1341	11.79	-	250	7.8	26.25	9.06	0.187	1.13	0.0	-148	Drawdown causing unstable purge rate due to change
1346	13.46	-	250	9.0	25.84	9.05	0.188	1.12	0.0	-149	in head pressure
1351	14.98	-	250	10.3	25.60	9.05	0.187	1.09	0.0	-148	Clear water
Start sample											No odor
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-11S	Well Depth as Built:	14.50 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	918	Well Depth Measured:	14.60 ft	Initial Depth To Water:	8.26 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1005	Depth To Top Of Screen:	4.50 ft	Depth Of Pump Intake:	11 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	14.50 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
921	8.34	150	-	0.0	22.18	5.90	0.115	0.77	274.0	115	Sample for:
926	8.35	175	-	0.9	22.31	5.59	0.085	0.43	129.0	130	VOCs* (Eurofins)
931	8.35	175	-	1.8	22.27	5.50	0.078	0.40	74.9	137	
936	8.35	175	-	2.6	22.35	5.33	0.066	0.38	81.4	150	
941	8.36	175	-	3.5	22.48	5.23	0.057	0.35	41.5	156	
946	8.36	175	-	4.4	22.51	5.25	0.055	0.35	28.2	157	
951	8.36	175	-	5.3	22.52	5.23	0.054	0.32	18.1	158	
956	8.36	175	-	6.1	22.53	5.23	0.053	0.32	11.6	159	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-11I	Well Depth as Built:	32.00 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	833	Well Depth Measured:	34.20 ft	Initial Depth To Water:	8.1 ft	Field Parameter Device:	Horiba U-52
Finish Time:	916	Depth To Top Of Screen:	22.00 ft	Depth Of Pump Intake:	27 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	32.00 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
837	8.16	200	-	0.0	24.67	6.57	0.105	1.90	0.0	148	Sample for:
842	8.17	200	-	1.0	23.14	6.34	0.097	1.09	0.0	154	VOCs* (Eurofins)
847	8.18	200	-	2.0	21.83	6.17	0.095	0.98	0.0	163	
852	8.18	200	-	3.0	21.51	6.11	0.095	0.98	0.0	167	
857	8.18	200	-	4.0	21.42	6.09	0.095	0.97	0.0	169	
902	8.18	200	-	5.0	21.38	6.07	0.095	0.98	0.0	170	
907	8.18	200	-	6.0	21.36	6.07	0.095	0.97	0.0	171	
912	8.18	200	-	7.0	22.33	6.07	0.095	0.97	0.0	173	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/22/2018

Sampling Data:

Well ID:	MW-11D	Well Depth as Built:	289.60 ft	Well Diameter:	2.0 in	Purging Device:	Grundfos
Start time:	831	Well Depth Measured:	- ft	Initial Depth To Water:	8.65 ft	Field Parameter Device:	Horiba U-52
Finish Time:	925	Depth To Top Of Screen:	- ft	Depth Of Pump Intake:	285 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	289.60 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
832	8.95	-	250	0	19.44	7.64	0.344	8.28	0.0	-151	Sample for:
837	8.95	-	250	1.3	18.76	7.24	0.593	2.52	0.0	-195	VOCs* (Eurofins)
842	8.95	-	250	2.5	18.64	7.20	0.651	2.86	0.0	-250	
847	8.96	-	250	3.8	19.01	7.24	0.656	2.73	0.0	-287	Strong methane odor
852	8.96	-	250	5.0	19.22	7.39	0.650	1.92	0.0	-305	Clear water
857	8.96	-	250	6.3	19.20	7.43	0.648	1.76	0.0	-311	
902	8.96	-	250	7.5	19.26	7.47	0.649	1.51	0.0	-318	
907	8.96	-	250	8.8	19.26	7.48	0.649	1.25	0.0	-324	
912	8.96	-	250	10.0	19.29	7.48	0.649	1.19	0.0	-326	
917	8.96	-	250	11.3	19.22	7.47	0.649	1.17	0.0	-329	
Start sample											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/20/2018

Sampling Data:

Well ID:	MW-16I	Well Depth as Built:	30.68 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1449	Well Depth Measured:	33.95 ft	Initial Depth To Water:	18.34 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1525	Depth To Top Of Screen:	20.68 ft	Depth Of Pump Intake:	25 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Screen:	30.68 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1452	18.83	-	150	0	29.25	5.92	14.4	1.93	54.2	-42	Sample for:
1457	19.22	-	150	0.8	29.22	6.57	14.4	0.92	58.0	-73	VOCs* (Eurofins)
1502	19.35	-	150	1.5	25.90	6.59	14.6	0.81	69.9	-78	
1507	19.46	-	150	2.3	25.71	6.60	14.7	0.73	78.0	-80	Strong odor
1512	19.46	-	150	3.0	25.54	6.61	14.7	0.72	79.4	-82	Tan water color
1517	19.46	-	150	3.8	25.51	6.60	14.7	0.72	78.5	-83	
Start sample											
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/20/2018

Sampling Data:

Well ID:	MW-16D	Well Depth as Built:	56.48 ft	Well Diameter:	2.0 in	Purging Device:	Peristaltic
Start time:	1445	Well Depth Measured:	59.25 ft	Initial Depth To Water:	18.13 ft	Field Parameter Device:	Horiba U-52
Finish Time:	1536	Depth To Top Of Screen:	46.48 ft	Depth Of Pump Intake:	51 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Screen:	56.48 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
1450	18.46	175	-	0.0	29.64	6.49	0.119	9.05	0.0	112	Sample for:
1455	18.46	175	-	0.9	27.83	6.31	0.116	5.32	0.0	96	VOCs* (Eurofins)
1500	18.46	175	-	1.8	27.15	5.88	0.110	1.97	0.0	78	
1505	18.47	175	-	2.7	23.63	5.81	0.123	1.65	0.0	83	
1510	18.47	175	-	3.6	23.13	5.80	0.135	1.57	0.0	84	
1515	18.47	175	-	4.5	22.98	5.83	0.145	1.47	0.0	72	
1520	18.47	175	-	5.4	22.96	5.85	0.147	1.43	0.0	70	
1525	18.47	175	-	6.3	22.95	5.86	0.148	1.42	0.0	69	
1530	18.47	175	-	7.2	22.98	5.86	0.148	1.41	0.0	69	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	J. Yonts
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	RW-3	Well Depth as Built:	89.60 ft	Well Diameter:	4.0 in	Purging Device:	Grundfos
Start time:	826	Well Depth Measured:	93.52 ft	Initial Depth To Water:	12.74 ft	Field Parameter Device:	Horiba U-52
Finish Time:	912	Depth To Top Of Screen:	59.60 ft	Depth Of Pump Intake:	75 ft	Tubing Present In Well:	☐ Yes ☑ No
		Depth To Bottom Of Screen:	89.60 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
831	13.55	350	-	0.0	24.60	8.08	0.401	5.67	11.5	88	Sample for:
836	14.30	400	-	1.9	23.87	7.61	0.275	4.00	247.0	107	VOCs* (Eurofins)
841	14.57	350	-	3.9	23.31	6.99	0.182	2.25	204.0	127	
846	14.61	350	-	5.7	23.67	6.68	0.175	1.62	171.0	135	
851	14.64	350	-	7.5	23.92	6.60	0.171	1.48	58.3	140	
856	14.64	350	-	9.3	23.98	6.59	0.169	1.43	48.5	142	
901	14.65	350	-	11.1	24.08	6.58	0.168	1.41	48.5	142	
906	14.65	350	-	12.9	24.09	6.58	0.168	1.41	47.3	143	Sample due to stable parameters
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	Former General Time Facility	**H&A FILE NO.**	128752-006
LOCATION	Athens, Georgia	**PROJECT MGR.**	N. Alla
CLIENT	Carpenter Technology Corporation	**FIELD REP**	S. Lewis
CONTRACTOR	None	**DATE**	8/21/2018

Sampling Data:

Well ID:	RW-4	Well Depth as Built:	89.61 ft	Well Diameter:	4.0 in	Purging Device:	Grundfos
Start time:	817	Well Depth Measured:	93.65 ft	Initial Depth To Water:	11.7 ft	Field Parameter Device:	Horiba U-52
Finish Time:	900	Depth To Top Of Screen:	59.61 ft	Depth Of Pump Intake:	75 ft	Tubing Present In Well:	☐ Yes ☐ No
		Depth To Bottom Of Screen:	89.61 ft	Measuring Point:	Top of Casing	Tubing Type:	Teflon-Poly

Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (mL/min)	Purge Rate (mL/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mV)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		--	N/A	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
819	13.73	-	250	0	21.22	6.58	0.082	5.69	815	106	Sample for:
824	13.81	-	250	1.3	21.55	6.32	0.082	5.37	741	126	VOCs* (Eurofins)
829	13.85	-	250	2.5	21.67	6.26	0.081	5.28	741	134	
834	13.91	-	250	3.8	21.61	6.11	0.081	5.19	682	141	Grunfos has to be purged at a faster rate so there
839	14.03	-	250	5.0	21.55	6.03	0.080	5.07	617	144	is sufficient water purging around the motor
844	14.14	-	250	6.3	21.61	5.99	0.077	4.85	221	142	
849	14.21	-	250	7.5	21.47	5.98	0.077	4.82	218	141	Clear water
854	14.28	-	250	8.8	21.39	5.96	0.077	4.84	211	145	No odor
Start sample											
											*Site Specific VOCs:
											1,1-Dichloroethene (1,1-DCE)
											cis-1,2-Dichloroethene (cis-1,2-DCE)
											trans-1,2-Dichloroethene (trans-1,2-DCE)
											Methylene Chloride (MC)
											1,1,2-Trichloroethane (1,1,2-TCA)
											Trichloroethene (TCE)
											Vinyl Chloride (VC)

well volume = 3.14 (PI) x radius^2 x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

APPENDIX C

Historical Summary of VOC Concentrations

HALEY ALDRICH

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-1I						MW-1S												
Sample Date	Mar-00	Dec-07	Mar-10	11/18/2010	12/21/2011	9/16/2015	9/9/2016	Mar-00	Dec-07	Mar-10	11/18/2010	12/21/2011	9/16/2015	9/9/2016	Mar-00	Dec-07	Mar-10	5/27/2009	8/19/2009	11/9/2009	3/24/2010
Field Parameters																					
Conductivity, Field (mS/cm)	-	-	-	**0.051**	**0.053**	**0.065**	**0.069**	-	-	-	**0.039**	**0.036**	**0.042**	-	-	-	-	**0.185**	**-**	**0.181**	**0.163**
Dissolved Oxygen, Field (mg/L)	-	-	-	**8.38**	**8.64**	**6.58**	**3.79**	-	-	-	**3.02**	**8.32**	**0.86**	-	-	-	-	1.11	-	**1.09**	**4.28**
ORP, Field (mV)	-	-	-	**167.3**	**142.9**	**204**	**183**	-	-	-	**104**	**149**	**84**	-	-	-	-	101.5	**-**	**77.4**	**-156.2**
pH, Field (NTU)	-	-	-	**6.29**	**6.25**	**6.58**	**5.84**	-	-	-	**5.67**	**5.97**	**5.17**	-	-	-	-	8.59	**-**	**8.43**	**9.2**
Temperature, Field (Deg C)	-	-	-	**18.71**	**18**	**19.44**	**28.76**	-	-	-	**19.23**	**17.4**	**21.31**	-	-	-	-	20.37	**-**	**17.64**	**18.83**
Turbidity, Field (NTU)	-	-	-	**1.5**	**1.4**	**2.0**	**1.5**	-	-	-	**8.5**	**5.1**	**14.6**	-	-	-	-	-	**-**	**2.43**	**7.85**
General Chemistry (mg/L)																					
Alkalinity, Total (as CaCO3)	-	-	-	**24.7**	**23.8**	-	-	-	-	-	12.3	**16.2**	-	-	-	-	-	74.9	**58.9**	**37.3**	**71**
Carbon Dioxide	-	-	-	**57.7**	-	-	-	-	-	-	**68.5**	-	-	-	-	-	-	**66.3**	**52.4**	**185**	**52.5**
Chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**3.5**	**3.8**	**3.4**	**3.3**
Nitrate	-	-	-	**0.62**	**0.66**	-	-	-	-	-	**0.24**	**0.56**	-	-	-	-	-	**0.1**	**0.12**	**0.47**	**0.12**
Nitrite (as N)	-	-	-	< 0.10	< 0.1	-	-	-	-	-	< 0.10	< 0.1	-	-	-	-	-	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite/Nitrate Nitrogen	-	-	-	**0.62**	**0.66**	-	-	-	-	-	**0.24**	**0.56**	-	-	-	-	-	< 0.20	< 2	**0.47**	< 0.20
Sulfate	-	-	-	< 2	< 5	-	-	-	-	-	< 2	< 5	-	-	-	-	-	**13.3**	**12.7**	**14**	**14.6**
Sulfide	-	-	-	< 1	< 0.1	-	-	-	-	-	< 1	< 0.1	-	-	-	-	-	< 1.0	< 1	< 1	**1.2**
Total Organic Carbon (TOC)	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	**13.4**
Dissolved Gases(ug/L)																					
Ethane	-	-	-	< 1	< 10	-	-	-	-	-	< 1	< 10	-	-	-	-	-	< 1	< 1	< 1	< 1
Ethene	-	-	-	< 1	< 10	-	-	-	-	-	< 1	< 10	-	-	-	-	-	< 1	< 1	< 1	< 1
Methane	-	-	-	< 0.50	< 10	-	-	-	-	-	**256**	< 10	-	-	-	-	-	**0.51**	**0.4 J**	**0.18 J**	**0.19 J**
Volatile Fatty Acids(mg/L)																					
Acetic Acid	-	-	-	-	**0.16**	-	-	-	-	-	-	**0.13**	-	-	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	**0.11**	-	-	-	-	-	-	**0.086**	-	-	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	**0.11**	-	-	-	-	-	-	**0.14**	-	-	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	**0.070**	-	-	-	-	-	-	**0.058**	-	-	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	< 0.15	-	-	-	-	-	-	< 0.15	-	-	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																					
Hydrogen	-	-	-	-	**2.0**	-	-	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																					
Iron, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	-	-	< 0.10	-	-	-	-	-	-	**0.92**	-	-	-	-	-	-	**0.15**	< 0.10	< 0.10	**0.12**
Manganese, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																					
Acetone	-	-	-	< 25	< 25	-	-	-	-	-	< 25	< 25	-	-	-	-	-	< 25	-	< 25	< 25
Benzene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Bromobenzene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Bromoform	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Bromomethane	-	-	-	-	< 2	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	-	-	-	-	< 5	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	-	-	**0.89 J**	-	-	-	-	-	-	**0.40 J**	-	-	-	-	-	-	**0.63**	-	< 2	< 2
Carbon tetrachloride	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Chlorobenzene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Chloroethane	-	-	-	< 2	< 1	-	-	-	-	-	< 2	< 1	-	-	-	-	-	< 2	-	< 2	< 2
Chloroform	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Chloromethane	-	< 10	< 5	< 1	-	< 1	-	-	< 10	< 5	< 1	-	< 1	-	-	ND	ND	-	-	-	-
2-Chlorotoluene	-	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	< 5	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	< 1	< 1	-	-	-	-	-	-	< 1	< 1	-	-	-	-	< 1	-	< 1	< 1
1,2-Dibromoethane (EDB)	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dibromomethane	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	-	< 1	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethane	< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	-	ND	ND	-	< 1	-	< 1	< 1
1,2-Dichloroethane	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
1,1-Dichloroethene	< 5	< 5	< 1	< 1	< 1	-	< 1	< 5	< 5	< 1	< 1	< 1	-	-	ND	ND	-	< 1	-	< 1	< 1
cis-1,2-Dichloroethene	-	< 5	< 1	< 2	< 1	< 1	< 1	-	< 5	< 1	< 2	< 1	< 1	-	ND	ND	-	< 2	**2.9**	< 2	< 2
trans-1,2-Dichloroethene	-	< 5	< 1	< 1	< 1	< 1	< 1	-	< 5	< 1	< 1	< 1	< 1	-	ND	ND	-	< 1	-	< 1	< 1
1,2-Dichloropropane	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
1,3-Dichloropropane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
trans-1,3-Dichloropropene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Diisopropyl ether	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Hexachloro-1,3-butadiene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
2-Hexanone	-	-	-	< 10	< 5	-	-	-	-	-	< 10	< 5	-	-	-	-	-	< 10	-	< 10	< 10
p-Isopropyltoluene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Methyl bromide	-	-	-	< 2	-	-	-	-	-	-	< 2	-	-	-	-	-	-	< 2	-	< 2	< 2
Methyl chloride	< 5	< 5	< 1	< 2	-	-	-	< 5	< 5	< 1	< 2	-	-	-	ND	ND	-	< 2	-	< 2	< 2
Methylene Chloride	-	-	-	< 2	< 2	< 4	< 4	-	-	-	< 2	< 2	< 4	-	-	-	-	**3.9**	-	< 2	< 2
Methyl ethyl ketone	-	-	-	< 5	-	-	-	-	-	-	< 5	-	-	-	-	-	-	< 5	-	< 5	< 5
4-Methyl-2-pentanone (MIBK)	-	-	-	< 5	< 5	-	-	-	-	-	< 5	< 5	-	-	-	-	-	< 5	-	< 5	< 5
Methyl-tert-butyl ether	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Styrene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
1,1,1,2-Tetrachloroethane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	< 1	-	< 1	< 1
Tetrachloroethene	< 5	< 5	< 1	< 1	< 1	-	-	< 5	< 5	< 1	< 1	< 1	-	-	ND	ND	-	< 1	-	< 1	< 1
Toluene	-	-	-	< 1	< 1	-	-	-	-	-	< 1	< 1	-	-	-	-	-	**0.9**	-	< 1	< 1
1,2,3-Trichlorobenzene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	< 5	< 5	< 1	< 1	< 1	-	-	< 5	< 5	< 1	< 1	< 1	-	-	ND	ND	-	< 1	-	< 1	< 1
1,1,2-Trichloroethane	< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	-	ND	ND	-	< 1	-	< 1	< 1
Trichloroethene	< 5	< 5	< 5	< 1	< 1	< 1	< 1	< 5	< 5	< 5	< 1	< 1	< 1	-	< 5	**1.1**	**2.3**	**2.3**	**336**	**2.4**	**16.9**
Trichlorofluoromethane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	< 2	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
Vinyl chloride	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 2	< 2	< 1	< 1	< 1	< 1	-	ND	ND	< 1	< 1	< 1	< 1	< 1
m&p-Xylene	-	-	-	-	< 2	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
o-Xylene	-	-	-	-	< 1	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Xylene, Total	-	-	-	< 3	-	-	-	-	-	-	< 3	-	-	-	-	-	-	< 3	-	< 3	< 3

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-2D									MW-2I												
Sample Date	6/29/2010	9/30/2010	11/18/2010	8/3/2011	12/22/2011	12/22/2011	2/21/2012	9/17/2015	9/8/2016	Mar-00	Dec-07	Mar-07	5/27/2009	8/19/2009	11/9/2009	3/23/2010	6/28/2010	9/30/2010	11/18/2010	12/21/2011	2/20/2012	2/23/2015
Field Parameters																						
Conductivity, Field (mS/cm)	-	-	**0.181**	**0.225**	-	**0.205**	**0.167**	-	**0.229**	-	-	-	**0.078**	-	**0.064**	**0.068**	-	-	**0.064**	**0.064**	**0.068**	-
Dissolved Oxygen, Field (mg/L)	-	-	**1.09**	**0.55**	-	**1.08**	**1.1**	-	**0.56**	-	-	-	**2.28**	-	**2.32**	**3.23**	-	-	**2.32**	**2.54**	**1.5**	-
ORP, Field (mV)	-	-	**77.4**	**-206.3**	-	**-30.1**	**3.8**	-	**-53**	-	-	-	**31.1**	-	**173.7**	**-147.9**	-	-	**173.7**	**151.9**	**61.4**	-
pH, Field (NTU)	-	-	**8.43**	**9.89**	-	**7.89**	**8.6**	-	**9.85**	-	-	-	**5.91**	-	**6.04**	**5.82**	-	-	**6.04**	**5.89**	**5.87**	-
Temperature, Field (Deg C)	-	-	**17.64**	**23.9**	-	**18.8**	**13.6**	-	**21.6**	-	-	-	**21.44**	-	**19.09**	**17.79**	-	-	**19.09**	**18.9**	**17**	-
Turbidity, Field (NTU)	-	-	**2.43**	**4.1**	-	**3.4**	**2.4**	-	**7.91**	-	-	-	-	-	**2.6**	**28.2**	-	-	**2.6**	**5.1**	**3**	-
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	**60**	**74**	**80**	-	**75.6**	**77.7**	**78.4**	-	-	-	-	-	**28.2**	**26.1**	**30.5**	**31**	**23**	**29.1**	**29.4**	**29.2**	**28.6**	-
Carbon Dioxide	**55**	**66.5**	**71.7**	-	-	-	-	-	-	-	-	-	**127**	**157**	**105**	**119**	**87**	**67.8**	**84.7**	-	-	-
Chloride	**3.1**	-	-	-	-	-	-	-	-	-	-	-	**3.8**	**4.4**	**3.8**	**4.2**	**3.6**	-	-	-	-	-
Nitrate	< 0.1	< 0.1	**0.11**	< 0.1	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**1.5**	**1.6**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.5**	**0.44**	**1.5**
Nitrite (as N)	< 0.1	< 0.1	< 0.10	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	< 0.10	< 0.10	< 0.10	**0.14**	< 0.10	< 0.10	< 0.20	< 0.1	< 0.1	< 0.050
Nitrite/Nitrate Nitrogen	< 0.2	< 0.2	< 0.20	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**1.5**	**1.6**	**1.4**	**1.5**	**1.4**	**1.4**	**1.4**	**1.5**	**0.44**	-
Sulfate	**17.6**	**13.8**	**22.3**	21.9	**23.8**	**24.9**	**22.1**	-	-	-	-	-	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 5	< 5	< 5.0
Sulfide	< 1	< 1	< 1	-	< 0.1	< 0.1	< 0.1	-	-	-	-	-	< 1	< 1	**1**	< 1	**1.1**	< 1	< 1	< 0.1	< 0.1	-
Total Organic Carbon (TOC)	< 1	< 1	< 1	**11.9**	**1.6**	**1.7**	**1.4**	-	-	-	-	-	-	-	-	-	< 1	**2.1**	< 1	**1.8**	**2.2**	< 1.0
Dissolved Gases(ug/L)																						
Ethane	< 1	< 1	< 1	< 10	< 10	< 10	< 12.4	-	-	-	-	-	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-
Ethene	**0.53 J**	< 0.50	< 1	< 10	< 10	< 10	< 12.4	-	-	-	-	-	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-
Methane	**1.66**	**0.18 J**	**0.60 J**	< 10	< 10	< 10	< 6.6	-	-	-	-	-	**0.58**	**1.95**	**0.55**	**1.75**	**0.57**	**1**	**0.57**	< 10	< 6.6	-
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	-	< 0.070	< 0.070	**0.021 J**	-	-	-	-	-	-	-	-	-	-	-	-	**0.36**	**0.0096 J**	-
Butyric Acid	-	-	-	-	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	-	**0.12**	< 0.050	-
Lactic Acid	-	-	-	-	**0.22**	**0.16**	**0.090 J**	-	-	-	-	-	-	-	-	-	-	-	-	**0.10**	**0.063 J**	-
Propionic Acid	-	-	-	-	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	-	**0.092**	< 0.050	-
Pyruvic Acid	-	-	-	-	< 0.15	< 0.15	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	-	**3.7**	**4.9**	**1.8**	-	-	-	-	-	-	-	-	-	-	-	-	**1.2**	**1.3**	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	-	-	-	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	**57.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.200
Iron, Ferrous	**0.16**	< 0.10	**0.11**	-	-	-	-	-	-	-	-	-	< 0.10	**0.22**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	-	-	-
Manganese, Dissolved	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	**5.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																						
Acetone	< 25	< 25	< 25	-	< 25	< 25	-	-	-	-	-	-	< 2500	-	< 2500	< 1300	< 2500	< 5000	< 2500	< 25	-	< 100
Benzene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	<5
Bromobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Bromochloromethane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Bromodichloromethane	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Bromoform	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 20
Bromomethane	-	-	-	-	< 2	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	< 5
2-Butanone (MEK)	-	-	-	-	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	< 50
Carbon disulfide	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	**33.1 J**	-	< 200	< 100	< 200	< 400	< 200	-	-	-
Carbon tetrachloride	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Chlorobenzene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Chloroethane	< 2	< 2	< 2	-	< 1	< 1	-	-	-	-	-	-	< 200	-	< 200	< 100	< 200	< 400	< 200	< 1	-	< 5
Chloroform	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Chloromethane	-	-	-	-	< 1	< 1	-	-	-	< 1000	< 500	< 20	-	-	-	-	-	-	-	< 1	-	< 5
2-Chlorotoluene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
4-Chlorotoluene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	< 25
Dibromochloromethane	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,2-Dibromoethane (EDB)	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 5
Dibromomethane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2-Dichlorobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 25
1,3-Dichlorobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 25
1,4-Dichlorobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 25
Dichlorodifluoromethane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 5
1,1-Dichloroethane	< 1	< 1	< 1	-	< 1	< 1	-	-	< 1	< 1000	< 500	< 15	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,2-Dichloroethane	< 1	< 1	< 1	-	< 1	< 1	-	-	< 1	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,1-Dichloroethene	< 1	< 1	< 1	-	< 1	< 1	-	-	< 1	< 1000	< 500	< 26	< 100	-	< 100	< 50	< 100	< 200	< 100	**11.9**	-	**13**
cis-1,2-Dichloroethene	< 2	< 2	< 2	< 1	< 1	< 1	< 1	-	< 1	-	-	**155**	**403**	**369**	**374**	**487**	**488**	**403**	**659**	**924**	**813**	**1300**
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	< 1	-	-	< 24	< 100	-	< 100	**21.1 J**	< 100	< 200	< 100	**24.1**	< 100	**26**
1,2-Dichloropropane	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,3-Dichloropropane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
2,2-Dichloropropane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1-Dichloropropene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
cis-1,3-Dichloropropene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
trans-1,3-Dichloropropene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Diisopropyl ether	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Ethylbenzene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Hexachloro-1,3-butadiene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
2-Hexanone	< 10	< 10	< 10	-	< 5	< 5	-	-	-	-	-	-	< 1000	-	< 1000	< 500	< 1000	< 1000	< 1000	< 5	-	< 50
p-Isopropyltoluene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 25
Methyl bromide	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	< 200	-	< 200	< 100	< 200	< 400	< 200	-	-	-
Methyl chloride	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	< 200	-	< 200	< 100	< 200	< 400	< 200	-	-	-
Methylene Chloride	< 2	< 2	< 2	-	< 2	< 2	-	-	< 4	< 1000	< 500	**24.1**	**608**	-	**103 J**	< 250	<200	**631**	<200	< 2	-	< 20
Methyl ethyl ketone	< 5	< 5	< 5	-	-	-	-	-	-	-	-	-	< 500	-	< 500	< 250	< 500	< 1000	< 500	-	-	-
4-Methyl-2-pentanone (MIBK)	< 5	< 5	< 5	-	< 5	< 5	-	-	-	-	-	-	< 500	-	< 500	< 250	< 500	< 1000	< 500	< 5	-	< 50
Methyl-tert-butyl ether	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 5
Naphthalene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Styrene	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 25
1,1,1,2-Tetrachloroethane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	< 1000	< 500	< 23	< 100	-	< 100	< 50	< 100	< 200	< 100	**1.2**	-	< 5
Toluene	**0.40 J**	**0.26 J**	**0.35 J**	-	< 1	< 1	-	-	-	-	-	-	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,2,3-Trichlorobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2,4-Trichlorobenzene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 25
1,1,1-Trichloroethane	< 1	< 1	< 1	-	< 1	< 1	-	-	-	< 1000	< 500	< 12	< 100	-	< 100	< 50	< 100	< 200	< 100	< 1	-	< 5
1,1,2-Trichloroethane	< 1	< 1	< 1	-	< 1	< 1	-	-	< 1	< 1000	< 500	< 16	< 100	-	< 100	< 50	< 100	< 200	< 100	**2.7**	-	< 5
Trichloroethene	**1.4**	**2.2**	**1.4**	**1.1**	**1.1**	< 1	< 1	-	**4**	**18000**	**12000**	**5613**	**8700**	**7450**	**9340**	**8370**	**8080**	**9990**	**8540**	**11500**	**9430**	**14000**
Trichlorofluoromethane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	< 5
1,2,3-Trichloropropane	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Vinyl acetate	-	-	-	-	< 2	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-
Vinyl chloride	**0.81 J**	< 1	**0.39 J**	< 1	< 1	< 1	< 1	-	< 1	< 400	< 200	<28	< 100	< 100	< 100	< 50	< 100	< 200	< 100	**1.3**	< 100	< 5
m&p-Xylene	-	-	-	-	< 2	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-
o-Xylene	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Xylene, Total	< 3	< 3	< 3	-	-	-	-	-	-	-	-	-	< 300	-	< 300	< 150	< 300	< 600	< 300	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name					MW-2S												MW-3I				
Sample Date	9/16/2015	9/7/2016	Mar-00	Mar-07	5/27/2009	8/19/2009	11/9/2009	3/23/2010	6/28/2010	9/30/2011	11/18/2010	8/3/2011	12/21/2011	2/20/2012	9/16/2015	9/7/2016	Mar-00	Dec-07	12/27/2011	9/17/2015	9/8/2016	Mar-00
Field Parameters																						
Conductivity, Field (mS/cm)	**0.087**	**0.105**	-	-	**0.082**	-	**0.09**	**0.101**	-	-	**0.09**	**0.153**	**0.06**	**0.84**	**0.109**	**0.125**	-	-	**0.092**	**0.101**	**0.099**	-
Dissolved Oxygen, Field (mg/L)	**4.11**	**0.29**	-	-	**4.24**	-	**2.98**	**6.18**	-	-	**2.98**	**0.37**	**6.86**	**4**	**3.41**	**0.67**	-	-	**3.34**	**4.69**	**2.81**	-
ORP, Field (mV)	**83**	**109**	-	-	**69.5**	-	**208**	**-131**	-	-	**208**	**91.7**	**156**	**52.1**	**192**	**131**	-	-	**78.6**	**110**	**70**	-
pH, Field (NTU)	**6.62**	**6.07**	-	-	**5.11**	-	**5.65**	**5.78**	-	-	**5.65**	**5.93**	**5.58**	**5.7**	**6.39**	**5.63**	-	-	**6.27**	**7.61**	**6.00**	-
Temperature, Field (Deg C)	**22.42**	**34.73**	-	-	**18.85**	-	**21.12**	**18.18**	-	-	**21.72**	**21**	**19**	**16.2**	**22.38**	**35.85**	-	-	**18.5**	**21.59**	**24.4**	-
Turbidity, Field (NTU)	**1.0**	**8.2**	-	-	**-**	-	**1.1**	**9.84**	-	-	**1.1**	**5.9**	**2.2**	**4**	**0.2**	**38.3**	-	-	**4.8**	**0.2**	**29.5**	-
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	-	-	-	-	**20.8**	**32**	**12.7**	**33.4**	**22**	**21.7**	**27.1**	-	**19.5**	**26.5**	-	-	-	-	-	-	-	-
Carbon Dioxide	**-**	**-**	**-**	**-**	**136**	**266**	**130**	**138**	**105**	**108**	**108**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Chloride	**-**	**-**	**-**	**-**	**3.3**	**10.5**	**12.3**	**3.6**	**2.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Nitrate	-	-	-	-	**0.62**	< 0.10	< 0.10	**0.43**	**0.45**	**0.61**	**0.54**	< 0.2	**0.43**	**1.6**	-	-	-	-	-	-	-	-
Nitrite (as N)	-	-	-	-	< 0.10	< 0.10	< 0.10	**0.14**	< 0.10	< 0.10	< 0.10	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	-	-	-	-	**0.62**	< 0.20	< 0.20	**0.57**	**0.45**	**0.61**	**0.54**	< 0.2	**0.43**	**1.6**	-	-	-	-	-	-	-	-
Sulfate	-	-	-	-	**10**	**10.3**	< 2	**17.1**	**11.6**	**8.6**	**13.5**	**12.5**	**7.9**	**12**	-	-	-	-	-	-	-	-
Sulfide	-	-	-	-	< 1	< 1	< 1	**1.2**	< 1	< 1	< 1	-	< 0.1	< 0.1	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	-	-	-	-	-	-	-	-	< 1	< 1	< 1	**5**	**3.7**	**2.7**	-	-	-	-	-	-	-	-
Dissolved Gases(ug/L)																						
Ethane	-	-	-	-	< 1	**1.3**	**0.46**	< 1	< 1	< 1	< 1	< 10	< 10	< 12.4	-	-	-	-	-	-	-	-
Ethene	-	-	-	-	< 1	**0.83**	**1.2**	< 1	< 1	< 1	< 1	<10	< 10	< 12.4	-	-	-	-	-	-	-	-
Methane	-	-	-	-	< 0.5	**1390**	**1200**	**0.43**	< 0.50	**2.99**	< 0.5	**1410**	**11.2**	< 6.6	-	-	-	-	-	-	-	-
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.38**	**0.014 J**	-	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.17**	< 0.050	-	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.10	**0.060 J**	-	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.11**	< 0.050	-	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	**3.8**	**2.4**	-	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	< 50	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	-
Iron, Total	**-**	**-**	-	**-**	**-**	**-**	**-**	-	**-**	**-**	-	< 50	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	-
Iron, Ferrous	**-**	**-**	**-**	**-**	< 0.10	**1.1**	**2**	< 0.10	< 0.10	< 0.10	< 0.10	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Dissolved	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	-
Manganese, Total	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**9.1**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	-
Volatile Organic Compounds (ug/L)																						
Acetone	-	-	-	-	< 25	-	< 1300	< 25	< 25	< 25	< 25	-	< 25	-	-	-	-	-	< 25	-	-	-
Benzene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Bromobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Bromochloromethane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Bromodichloromethane	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Bromoform	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Bromomethane	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	< 2	-	-	-
2-Butanone (MEK)	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-
Carbon disulfide	-	-	-	-	<2	-	< 100	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Chlorobenzene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Chloroethane	-	-	-	-	< 2	-	< 100	< 2	< 2	< 2	< 2	-	< 1	-	-	-	-	-	< 1	-	-	-
Chloroform	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Chloromethane	-	-	< 5	< 0.2	-	-	-	-	-	-	-	-	< 1	-	-	-	< 5	< 10	< 1	-	-	< 5
2-Chlorotoluene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
4-Chlorotoluene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	< 5	-	-	-
Dibromochloromethane	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2-Dibromoethane (EDB)	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Dibromomethane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Dichlorodifluoromethane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1-Dichloroethane	< 10	< 10	< 5	< 0.2	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 5
1,2-Dichloroethane	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1-Dichloroethene	< 10	< 10	< 5	< 0.3	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	**5**	< 5	< 5	< 5	< 1	-	< 1	< 5
cis-1,2-Dichloroethene	**790**	**1600**	**-**	< 0.2	< 2	**98**	**203**	< 2	< 2	**0.39 J**	< 1	**48**	**1**	< 1	< 1	**74**	-	< 5	< 1	< 1	< 1	-
trans-1,2-Dichloroethene	**12**	**25**	**-**	< 0.2	< 1	-	< 50	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**-**	< 5	< 1	< 1	< 1	**-**
1,2-Dichloropropane	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
1,3-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
2,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Diisopropyl ether	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Ethylbenzene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Hexachloro-1,3-butadiene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
2-Hexanone	-	-	-	-	< 10	-	< 500	< 10	< 10	< 10	< 10	-	< 5	-	-	-	-	-	< 5	-	-	-
p-Isopropyltoluene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Methyl bromide	-	-	-	-	< 2	-	< 100	< 2	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	-	-
Methyl chloride	-	-	< 5	< 0.2	< 2	-	< 100	< 2	< 2	< 2	< 2	-	-	-	-	-	< 5	< 5	-	-	-	< 5
Methylene Chloride	< 40	< 40	-	-	**2.8 J**	-	< 250	< 2	< 2	< 2	< 2	-	< 2	-	< 4	< 4	-	-	< 2	< 4	< 4	-
Methyl ethyl ketone	-	-	-	-	< 5	-	< 250	< 5	< 5	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-	< 5	-	< 250	< 5	< 5	< 5	< 5	-	< 5	-	-	-	-	-	< 5	-	-	-
Methyl-tert-butyl ether	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Naphthalene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Styrene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
Tetrachloroethene	-	-	< 5	< 0.2	< 1	-	< 50	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	< 5	< 5	< 1	-	-	< 5
Toluene	-	-	-	-	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2,3-Trichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,1,1-Trichloroethane	-	-	< 5	< 0.1	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	-	-	< 5	< 5	< 1	-	-	< 5
1,1,2-Trichloroethane	< 10	< 10	< 5	< 0.2	< 1	-	< 50	< 1	< 1	< 1	< 1	-	< 1	-	< 1	< 1	< 5	<5	< 1	< 1	< 1	< 5
Trichloroethene	**7800**	**12000**	< 5	**1.7**	**6**	**168**	**3470**	**3.6**	**0.34 J**	**2.3**	**2**	**128**	**2.9**	< 1	< 1	**100**	< 5	< 5	< 1	< 1	< 1	< 5
Trichlorofluoromethane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
1,2,3-Trichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	< 2	-	-	-
Vinyl chloride	< 10	< 10	< 2	< 0.3	< 1	**6.7**	< 50	< 1	< 1	< 1	< 1	**2.6**	< 1	< 1	< 1	< 1	< 2	< 0.3	< 1	< 1	< 1	< 2
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	< 2	-	-	-
o-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1	-	-	-
Xylene, Total	-	-	-	-	< 3	-	< 150	< 3	< 3	< 3	< 3	-	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name		MW-4I								MW-5I								MW-6I
Sample Date	Dec-07	11/12/2009	11/18/2010	12/22/2011	Mar-00	Aug-02	Dec-07	Mar-10	8/21/2009	3/24/2010	6/60/2010	9/30/2010	11/17/2010	12/27/2011	2/21/2012	9/17/2015	9/12/2016	Mar-00	Aug-02	Dec-07	May-09	8/21/2009
Field Parameters																						
Conductivity, Field (mS/cm)	-	**0.085**	**0.085**	**0.088**	-	-	-	-	-	**0.096**	-	-	**0.098**	**0.101**	**0.098**	**0.109**	**0.101**	-	-	-	-	-
Dissolved Oxygen, Field (mg/L)	-	**2.56**	**2.56**	**2.11**	-	-	-	-	-	**4.97**	-	-	**3.17**	**5.5**	**1.79**	**1.87**	**2.2**	-	-	-	-	-
ORP, Field (mV)	-	**159.2**	**159.2**	**19.5**	-	-	-	-	-	**-140.7**	-	-	**95.8**	**49.1**	**73.2**	**121**	**92**	-	-	-	-	-
pH, Field (NTU)	-	**5.99**	**5.99**	**6.21**	-	-	-	-	-	**6.36**	-	-	**6.27**	**6.53**	**6.39**	**6.8**	**6.26**	-	-	-	-	-
Temperature, Field (Deg C)	-	**15.76**	**15.76**	**17.4**	-	-	-	-	-	**23.32**	-	-	**23.41**	**20.5**	**21.7**	**24.71**	**26.36**	-	-	-	-	-
Turbidity, Field (NTU)	-	**6.6**	**6.6**	**6.3**	-	-	-	-	-	**3.62**	-	-	**13.7**	**5.1**	**2.3**	**0.0**	**0.0**	-	-	-	-	-
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	-	**48.3**	**42.8**	**41**	-	-	-	-	**40.4**	**32.9**	**34**	**42.1**	**40.4**	**44.1**	**43.2**	-	-	-	-	-	-	**22.8**
Carbon Dioxide	-	**50**	**119**	-	-	-	-	-	**54**	**66.8**	**70**	**55.9**	**85.4**	-	-	-	-	-	-	-	-	**149**
Chloride	-	**5.1**	-	-	-	-	-	-	**3.4**	**3.4**	**3.1**	-	-	-	-	-	-	-	-	-	-	**7.2**
Nitrate	-	**0.74**	**0.66**	**0.67**	-	-	-	-	**0.81**	**1.2**	**0.83**	**0.73**	**0.72**	**0.84**	**0.84**	-	-	-	-	-	-	**1.1**
Nitrite (as N)	-	< 0.10	< 0.10	< 0.1	-	-	-	-	< 0.10	**0.1**	< 0,10	< 0,10	< 0.10	< 0.1	< 0.1	-	-	-	-	-	-	< 0.10
Nitrite/Nitrate Nitrogen	-	**0.74**	**0.66**	**0.67**	-	-	-	-	**0.81**	**1.3**	**0.83**	**0.73**	**0.72**	**0.84**	**0.84**	-	-	-	-	-	-	**1.1**
Sulfate	-	< 2	< 2	< 5	-	-	-	-	< 2	**6**	< 2	< 2	< 2	< 5	< 5	-	-	-	-	-	-	< 2
Sulfide	-	< 1	< 1	< 0.1	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	-	-	-	-	-	-	< 1
Total Organic Carbon (TOC)	-	-	< 1	**13.6**	-	-	-	-	-	**1.1**	< 1	< 1	< 1	**1.5**	**1.6**	-	-	-	-	-	-	-
Dissolved Gases(ug/L)																						
Ethane	-	< 1	< 1	< 10	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	-	< 1
Ethene	-	< 1	< 1	< 10	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	-	< 1
Methane	-	< 0.50	**0.26**	< 10	-	-	-	-	< 0.50	**0.17 J**	**0.39 J**	**0.46**	**0.87**	< 10	< 6.6	-	-	-	-	-	-	< 0.5
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	< 0.070	-	-	-	-	-	-	-	-	-	< 0.070	**0.016 J**	-	-	-	-	-	-	-
Butyric Acid	-	-	-	< 0.050	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-
Lactic Acid	-	-	-	< 0.10	-	-	-	-	-	-	-	-	-	**0.13**	**0.76**	-	-	-	-	-	-	-
Propionic Acid	-	-	-	< 0.050	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	< 0.15	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	**1.4**	-	-	-	-	-	-	-	-	-	**1.8**	**0.86**	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	**0.11**	< 0.10	-	-	-	-	-	**0.42**	< 0.10	< 0.10	< 0.10	< 0.10	-	-	-	-	-	-	-	-	< 0.10
Manganese, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																						
Acetone	-	< 25	< 25	< 25	-	-	-	-	-	< 25	< 25	< 25	< 25	< 25	-	-	-	-	-	-	-	-
Benzene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromochloromethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromodichloromethane	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromoform	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	< 2	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
2-Butanone (MEK)	-	-	-	< 5	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Carbon disulfide	-	< 2	< 2	-	-	-	-	-	-	< 2	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Chlorobenzene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Chloroethane	-	< 2	< 2	< 1	-	-	-	-	-	< 2	< 2	< 2	< 2	< 1	-	-	-	-	-	-	-	-
Chloroform	-	**0.64 J**	**0.59 J**	< 1	-	-	-	-	-	< 1	**0.29 J**	**0.38 J**	**0.36 J**	< 1	-	-	-	-	-	-	-	-
Chloromethane	< 10	-	-	< 1	< 10	< 10	< 5	< 1	-	-	-	-	-	< 1	-	-	-	< 20	< 20	< 5	-	-
2-Chlorotoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	< 5	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Dibromochloromethane	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dibromomethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethane	< 5	< 1	< 1	< 1	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 10	< 10	< 5	-	-
1,2-Dichloroethane	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethene	< 5	**0.57 J**	**0.43 J**	< 1	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	< 1	< 10	< 10	< 5	-	-
cis-1,2-Dichloroethene	< 5	< 2	< 2	< 1	-	-	< 5	**1**	**1.9**	**1.2**	**2**	**2.5**	**2.4**	**2.8**	**2.2**	**3**	**3**	-	-	**80**	**74.2**	**63.9**
trans-1,2-Dichloroethene	< 5	< 1	< 1	< 1	-	-	< 5	< 1	-	< 1	< 1	**1.3**	< 1	< 1	< 1	< 1	< 1	-	-	< 5	-	-
1,2-Dichloropropane	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Diisopropyl ether	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Ethylbenzene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Hexachloro-1,3-butadiene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2-Hexanone	-	< 10	< 10	< 5	-	-	-	-	-	< 10	< 10	< 10	< 10	< 5	-	-	-	-	-	-	-	-
p-Isopropyltoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Methyl bromide	-	< 2	< 2	-	-	-	-	-	-	< 2	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-
Methyl chloride	< 5	< 2	< 2	-	< 5	< 5	< 5	< 1	-	< 2	< 2	< 2	< 2	-	-	-	-	< 10	< 10	< 5	-	-
Methylene Chloride	-	< 2	< 2	< 2	-	-	-	-	-	< 2	< 2	< 2	< 2	< 2	-	< 4	< 4	-	-	-	-	-
Methyl ethyl ketone	-	< 5	< 5	-	-	-	-	-	-	< 5	< 5	< 5	< 5	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	< 5	< 5	< 5	-	-	-	-	-	< 5	< 5	< 5	< 5	< 5	-	-	-	-	-	-	-	-
Methyl-tert-butyl ether	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Styrene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Tetrachloroethene	< 5	< 1	< 1	< 1	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	< 10	< 10	< 5	-	-
Toluene	-	< 1	< 1	< 1	-	-	-	-	-	< 1	< 1	**1.1**	**1.1**	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	< 5	< 1	< 1	< 1	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	< 10	< 10	< 5	-	-
1,1,2-Trichloroethane	<5	< 1	< 1	< 1	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 10	< 10	< 5	-	-
Trichloroethene	< 5	**3.2**	**2.1**	**1.9**	**45**	**110**	**110**	**73**	**104**	**72.8**	**91.2**	**89.4**	**98.1**	**96.1**	< 1	**81**	**78**	**210**	**260**	**380**	**493**	**435**
Trichlorofluoromethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	< 2	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
Vinyl chloride	< 0.3	< 1	< 1	< 1	< 2	< 2	< 2	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 4	< 4	< 2	< 2	< 5
m&p-Xylene	-	-	-	< 2	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
o-Xylene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Xylene, Total	-	< 3	< 3	-	-	-	-	-	-	< 3	< 3	< 3	< 3	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-7I																MW-8I					
Sample Date	11/17/2010	12/19/2011	9/17/2015	9/9/2016	Mar-00	Aug-02	Dec-07	May-09	8/20/2009	3/24/2010	6/30/2010	9/30/2010	12/27/2011	2/21/2012	9/17/2015	9/12/2016	Mar-00	Aug-02	Dec-07	May-09	8/21/2009	11/12/2009
Field Parameters																						
Conductivity, Field (mS/cm)	**0.007**	**0.74**	**0.082**	**0.094**	-	-	-	-	-	**0.135**	-	-	**0.122**	**0.124**	**0.126**	**0.118**	-	-	-	-	-	**0.336**
Dissolved Oxygen, Field (mg/L)	**8.64**	**1.33**	**3.85**	**0.76**	-	-	-	-	-	**0.35**	-	-	**0.35**	**0.12**	**0.58**	**0.57**	-	-	-	-	-	**9.29**
ORP, Field (mV)	**120.4**	**209.1**	**114**	**200**	-	-	-	-	-	**-150.6**	-	-	**45.9**	**21**	**129**	**67**	-	-	-	-	-	**153.1**
pH, Field (NTU)	**5.99**	**5.64**	**6.82**	**5.59**	-	-	-	-	-	**5.8**	-	-	**6.2**	**6.19**	**6.46**	**6.15**	-	-	-	-	-	**5.4**
Temperature, Field (Deg C)	**20.83**	**19.3**	**23.84**	**24.21**	-	-	-	-	-	**20.66**	-	-	**18.8**	**19.3**	**23.43**	**26.54**	-	-	-	-	-	**21.59**
Turbidity, Field (NTU)	**4.2**	**7.9**	**0.0**	**9.8**	-	-	-	-	-	**122.0**	-	-	**5**	**0.9**	**0.0**	**0.0**	-	-	-	-	-	**3.7**
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-	-	-	**71.4**	**74**	**54**	**51.7**	**57.8**	**46.4**	-	-	-	-	-	-	**17.2**	-
Carbon Dioxide	-	-	-	-	-	-	-	-	**64.1**	**154**	**135**	**77.4**	-	-	-	-	-	-	-	-	**200**	-
Chloride	-	-	-	-	-	-	-	-	**6**	**5.7**	**5.2**	-	-	-	-	-	-	-	-	-	**5.4**	-
Nitrate	-	-	-	-	-	-	-	-	< 0.10	< 0.10	**0.13**	< 0.10	< 0.2	< 0.2	-	-	-	-	-	-	**1.1**	-
Nitrite (as N)	-	-	-	-	-	-	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1	< 0.1	-	-	-	-	-	-	< 0.10	-
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.2	< 0.2	-	-	-	-	-	-	**1.1**	-
Sulfate	-	-	-	-	-	-	-	-	< 2	< 2	< 2	< 2	< 5	< 5	-	-	-	-	-	-	**79.2**	-
Sulfide	-	-	-	-	-	-	-	-	< 1	< 1	**1.3**	< 1	< 0.1	< 0.1	-	-	-	-	-	-	< 1	-
Total Organic Carbon (TOC)	-	-	-	-	-	-	-	-	-	**1**	<1	< 1	**2.4**	**18.8**	-	-	-	-	-	-	-	-
Dissolved Gases(ug/L)																						
Ethane	-	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	-	< 1	-
Ethene	-	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	-	< 1	-
Methane	-	-	-	-	-	-	-	-	**83.3**	**65.3**	**69.4**	**63.9**	**206**	**135**	-	-	-	-	-	-	< 0.5	-
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.070	**0.013 J**	-	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.19**	**0.5**	-	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	**1.3**	**1.4**	-	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	-	-	-	-	-	-	-	< 0,10	< 0,10	< 0,10	< 0,10	-	-	-	-	-	-	-	-	< 0.10	-
Manganese, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																						
Acetone	< 130	< 25	-	-	-	-	-	-	-	< 25	< 25	< 25	< 25	-	-	-	-	-	-	-	-	< 25
Benzene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Bromobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Bromochloromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Bromodichloromethane	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Bromoform	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Bromomethane	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	-	< 5	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Carbon disulfide	< 10	-	-	-	-	-	-	-	-	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	< 2
Carbon tetrachloride	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Chlorobenzene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Chloroethane	< 10	< 1	-	-	-	-	-	-	-	< 2	< 2	< 2	< 1	-	-	-	-	-	-	-	-	< 2
Chloroform	**1.5 J**	**1.5**	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Chloromethane	-	< 1	-	-	< 10	< 10	< 5	-	-	-	-	-	< 1	-	-	-	< 10	< 10	< 5	-	-	-
2-Chlorotoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	< 5	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-
Dibromochloromethane	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
1,2-Dibromoethane (EDB)	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Dibromomethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	< 5	< 1	< 1	< 1	< 5	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 5	< 5	< 5	-	-	< 1
1,2-Dichloroethane	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
1,1-Dichloroethene	< 5	**1.6**	-	< 1	< 5	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	< 1	< 5	< 5	< 5	-	-	< 1
cis-1,2-Dichloroethene	**59.7**	**70.6**	< 1	**49**	-	-	< 5	**3**	**2.3**	**1.6**	**1.4**	**1.8**	**2.5**	**2.3**	**3**	**2**	-	-	< 5	< 0.56	**1.2**	< 1
trans-1,2-Dichloroethene	< 5	< 1	< 1	< 1	-	-	< 5	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	< 5	-	-	< 1
1,2-Dichloropropane	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
1,3-Dichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
trans-1,3-Dichloropropene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Diisopropyl ether	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Ethylbenzene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Hexachloro-1,3-butadiene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
2-Hexanone	< 50	< 5	-	-	-	-	-	-	-	< 10	< 10	< 10	< 5	-	-	-	-	-	-	-	-	< 10
p-Isopropyltoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Methyl bromide	< 10	-	-	-	-	-	-	-	-	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-	< 2
Methyl chloride	< 10	-	-	-	< 5	< 5	< 5	-	-	< 2	< 2	< 2	-	-	-	-	< 5	< 5	< 5	-	-	< 2
Methylene Chloride	< 25	< 2	< 4	< 4	-	-	-	-	-	< 5	< 5	< 5	< 2	-	< 4	< 4	-	-	-	-	-	< 5
Methyl ethyl ketone	< 25	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	-	-	-	-	-	-	-	-	< 5
4-Methyl-2-pentanone (MIBK)	< 25	< 5	-	-	-	-	-	-	-	< 5	< 5	< 5	< 5	-	-	-	-	-	-	-	-	< 5
Methyl-tert-butyl ether	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Naphthalene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Styrene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
1,1,1,2-Tetrachloroethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
Tetrachloroethene	< 5	< 1	-	-	< 5	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	-	< 5	< 5	< 5	-	-	< 1
Toluene	< 5	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	< 1
1,2,3-Trichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	< 5	< 1	-	-	< 5	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	-	< 5	< 5	< 5	-	-	< 1
1,1,2-Trichloroethane	< 5	< 1	< 1	< 1	< 5	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 5	< 5	< 5	-	-	< 1
Trichloroethene	**380**	**438**	**7**	**410**	**23**	**14**	**23**	**15.5**	**12.7**	**7.2**	**5**	**6.6**	**2.3**	**1**	< 1	< 1	**16**	< 5	< 5	**8.6**	**15.3**	**0.36 J**
Trichlorofluoromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Vinyl acetate	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
Vinyl chloride	< 5	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	**5**	**3**	< 2	< 2	< 2	< 2	< 1	< 1
m&p-Xylene	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-
o-Xylene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-
Xylene, Total	< 15	-	-	-	-	-	-	-	-	< 3	< 3	< 3	-	-	-	-	-	-	-	-	-	< 3

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name											MW-9D									
Sample Date	11/17/2010	12/27/2011	10/13/2014	9/17/2015	9/12/2016	Mar-00	Dec-07	May-09	8/20/2009	3/24/2010	6/30/2010	9/30/2010	12/21/2011	2/21/2012	9/17/2015	9/9/2016	Mar-00	Aug-02	Dec-07	May-09	8/20/2009
Field Parameters																					
Conductivity, Field (mS/cm)	**0.336**	**0.312**	-	**0.32**	**0.246**	-	-	-	-	**0.156**	-	-	**0.166**	**0.167**	**0.203**	**0.184**	-	-	-	-	-
Dissolved Oxygen, Field (mg/L)	**9.29**	**7.85**	-	**2.1**	**1.32**	-	-	-	-	**0.62**	-	-	**0.51**	**0.27**	**1.72**	**0.57**	-	-	-	-	-
ORP, Field (mV)	**153.1**	**149**	-	**193**	**155**	-	-	-	-	**-187.1**	-	-	**-171**	**-115**	**51**	**-151**	-	-	-	-	-
pH, Field (NTU)	**5.4**	**5.46**	-	**5.85**	**5.47**	-	-	-	-	**8.76**	-	-	**8.62**	**8.8**	**7.85**	**8.19**	-	-	-	-	-
Temperature, Field (Deg C)	**21.59**	**16.2**	-	**25.8**	**28.83**	-	-	-	-	**17.04**	-	-	**19.9**	**18.4**	**27.4**	**24.49**	-	-	-	-	-
Turbidity, Field (NTU)	**3.7**	**4.2**	-	**2.5**	**0**	-	-	-	-	**23.3**	-	-	**1.5**	**4**	**0.5**	**0**	-	-	-	-	-
General Chemistry (mg/L)																					
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-	-	-	69.6	**90.1**	**71**	**85.1**	**84.4**	**84.8**	-	-	-	-	-	-	**50**
Carbon Dioxide	-	-	-	-	-	-	-	-	**72.3**	**78.9**	**62**	**74.8**	-	-	-	-	-	-	-	-	**146**
Chloride	-	-	-	-	-	-	-	-	**4**	**3.5**	**3.2**	-	-	-	-	-	-	-	-	-	**6.1**
Nitrate	-	-	-	-	-	-	-	-	< 0.10	**0.12**	< 0.10	< 0.10	< 0.2	< 0.2	-	-	-	-	-	-	**0.58**
Nitrite (as N)	-	-	-	-	-	-	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1	< 0.1	-	-	-	-	-	-	< 0.10
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.2	< 0.2	-	-	-	-	-	-	**0.68**
Sulfate	-	-	-	-	-	-	-	-	**6.4**	**1.2**	**7.6**	**6.9**	**9.1**	**9.2**	-	-	-	-	-	-	< 2
Sulfide	-	-	-	-	-	-	-	-	< 1	**1.2**	**1.1**	**3.3**	< 0.1	< 0.1	-	-	-	-	-	-	< 1
Total Organic Carbon (TOC)	-	-	-	-	-	-	-	-	-	**1.2**	< 1	**1**	**2.2**	**2.7**	-	-	-	-	-	-	-
Dissolved Gases(ug/L)																					
Ethane	-	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	-	< 1
Ethene	-	-	-	-	-	-	-	-	< 1	**1.2**	**0.97**	**1.1**	< 10	< 12.4	-	-	-	-	-	-	< 1
Methane	-	-	-	-	-	-	-	-	**0.24**	**1.29**	**0.91**	**1.56**	< 10	< 6.6	-	-	-	-	-	-	**5.66**
Volatile Fatty Acids(mg/L)																					
Acetic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.32**	**0.019 J**	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.15**	< 0.050	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.13**	**0.027**	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	-	-	-	-	-	-	-	-	**0.10**	< 0.050	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																					
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	**1.9**	**1.1**	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																					
Iron, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	-	-	-	-	-	-	-	< 0,10	< 0.10	**0.31**	**4**	-	-	-	-	-	-	-	-	< 0.10
Manganese, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																					
Acetone	< 25	< 25	-	-	-	-	-	-	-	< 25	< 25	< 25	< 25	-	-	-	-	-	-	-	-
Benzene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromochloromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromodichloromethane	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromoform	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Bromomethane	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
2-Butanone (MEK)	-	< 5	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Carbon disulfide	< 2	-	-	-	-	-	-	-	-	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Chlorobenzene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Chloroethane	< 2	< 1	-	-	-	-	-	-	-	< 2	< 2	< 2	< 1	-	-	-	-	-	-	-	-
Chloroform	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Chloromethane	-	< 1	-	-	-	< 10	< 10	-	-	-	-	-	< 1	-	-	-	< 100	< 100	< 5	-	-
2-Chlorotoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	< 5	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Dibromochloromethane	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dibromomethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethane	< 1	< 1	< 5	< 1	< 1	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 50	< 50	< 5	-	-
1,2-Dichloroethane	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethene	< 1	< 1	-	-	< 1	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	< 1	< 50	< 50	< 5	-	-
cis-1,2-Dichloroethene	< 1	< 1	< 5	< 1	< 1	-	< 5	< 1	**5.7**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	**160**	**136**	**117**
trans-1,2-Dichloroethene	< 1	< 1	< 5	< 1	< 1	-	< 5	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	< 5	-	-
1,2-Dichloropropane	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Diisopropyl ether	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Ethylbenzene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Hexachloro-1,3-butadiene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2-Hexanone	< 10	< 5	-	-	-	-	-	-	-	< 10	< 10	< 10	< 5	-	-	-	-	-	-	-	-
p-Isopropyltoluene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Methyl bromide	< 2	-	-	-	-	-	-	-	-	< 2	< 2	< 2	-	-	-	-	-	-	-	-	-
Methyl chloride	< 2	-	-	-	-	< 5	< 5	-	-	< 2	< 2	< 2	-	-	-	-	< 50	< 50	< 5	-	-
Methylene Chloride	< 5	< 2	< 5	< 4	< 4	-	-	-	-	< 5	< 5	< 5	< 2	-	< 4	< 4	-	-	-	-	-
Methyl ethyl ketone	< 5	-	-	-	-	-	-	-	-	< 5	< 5	< 5	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	< 5	< 5	-	-	-	-	-	-	-	< 5	< 5	< 5	< 5	-	-	-	-	-	-	-	-
Methyl-tert-butyl ether	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Naphthalene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Styrene	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	< 1	< 1	-	-	-	-	-	-	-	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-
Tetrachloroethene	< 1	< 1	-	-	-	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	-	< 50	< 50	< 5	-	-
Toluene	**2.6**	< 1	-	-	-	-	-	-	-	**0.25 J**	**0.44 J**	**3.3**	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	< 1	< 1	-	-	-	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	-	-	< 50	< 50	< 5	-	-
1,1,2-Trichloroethane	< 1	< 1	< 5	< 1	< 1	< 5	< 5	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 50	< 50	< 5	-	-
Trichloroethene	**0.73 J**	< 1	< 5	< 1	< 1	< 5	< 5	**< 1**	**191**	**1.1**	**0.63 J**	**0.79 J**	< 1	< 1	< 1	< 1	**1700**	**1400**	**1900**	**1710**	**1520**
Trichlorofluoromethane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Vinyl acetate	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
Vinyl chloride	< 1	< 1	< 2	< 1	< 1	< 2	< 2	< 1	< 2	**0.88 J**	**0.88 J**	**0.84 J**	**1.2**	**1.2**	< 1	**1**	< 20	< 20	< 2	< 20	< 20
m&p-Xylene	-	< 2	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-
o-Xylene	-	< 1	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Xylene, Total	< 3	-	-	-	-	-	-	-	-	< 3	< 3	< 3	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-9I							MW-10IR	MW-10D	MW-11D											
Sample Date	3/24/2010	6/29/2010	9/30/2010	12/21/2011	2/21/2012	9/17/2015	9/9/2016	Mar-00	Mar-00	Apr-00	5/29/2009	8/20/2009	3/23/2010	6/30/2010	9/29/2010	11/17/2010	12/22/2011	2/20/2012	9/18/2015	9/8/2016	Mar-00	Aug-02
Field Parameters																						
Conductivity, Field (mS/cm)	**0.123**	-	-	**0.122**	**0.129**	**0.137**	**0.169**	-	-	-	**0.082**	-	**0.596**	-	-	**0.683**	**0.98**	**0.87**	**0.288**	**0.678**	-	-
Dissolved Oxygen, Field (mg/L)	**0.72**	-	-	**0.35**	**0.39**	**2.59**	**0.32**	-	-	-	**12.8**	-	**0.12**	-	-	**0.53**	**0.69**	**-0.7**	**1.84**	**0.25**	-	-
ORP, Field (mV)	**-149**	-	-	**153.6**	**73.5**	**133**	**178**	-	-	-	**82.7**	-	**-291**	-	-	**-296**	**-335**	**-286.9**	**-75**	**-369**	-	-
pH, Field (NTU)	**5.97**	-	-	**6.18**	**6.23**	**6.72**	**6.11**	-	-	-	**8.19**	-	**7.32**	-	-	**6.85**	**7.03**	**7.3**	**6.99**	**7.7**	-	-
Temperature, Field (Deg C)	**19.47**	-	-	**19.6**	**18.4**	**24.67**	**25.40**	-	-	-	**16.47**	-	**13.71**	-	-	**15.86**	**16.7**	**15.7**	**18.12**	**19.2**	-	-
Turbidity, Field (NTU)	**66**	-	-	**3**	**1.3**	**0.0**	**0.0**	-	-	-	-	-	**0.96**	-	-	**3.7**	**5.1**	**4.8**	**2.4**	**0**	-	-
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	**63**	**48**	**57.3**	**61.7**	**59.3**	-	-	-	-	-	**57.1**	**47.8**	**318**	**341**	**461**	**348**	**441**	**376**	-	-	-	-
Carbon Dioxide	**194**	**87**	**79.2**	-	-	-	-	-	-	-	**62.2**	**57.2**	**314**	**318**	**413**	**320**	-	-	-	-	-	-
Chloride	**5.7**	**5.1**	-	-	-	-	-	-	-	-	**6.3**	**7.9**	**65.5**	**70.7**	-	-	-	-	-	-	-	-
Nitrate	**0.53**	**0.55**	**0.5**	**0.48**	**0.48**	-	-	-	-	-	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	**0.17**	< 0.2	< 0.2	-	-	-	-
Nitrite (as N)	**0.15**	< 0.10	< 0.10	< 0.1	< 0.1	-	-	-	-	-	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**1.5**	**0.77**	-	-	-	-
Nitrite/Nitrate Nitrogen	**0.68**	**0.55**	**0.5**	**0.48**	**0.48**	-	-	-	-	-	< 0.1	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.2	< 0.2	-	-	-	-
Sulfate	**3.2**	< 2	**2.1**	< 5	< 5	-	-	-	-	-	< 2	< 2	**12**	**7.7**	**5.8**	**14.2**	**5.2**	**7.8**	-	-	-	-
Sulfide	< 1	< 1	< 1	< 0.1	< 0.1	-	-	-	-	-	**2**	**3.3**	**12.1**	**26.4**	**42.4**	**29**	**57.8**	**4.6**	-	-	-	-
Total Organic Carbon (TOC)	< 1	< 1	< 1	**2.4**	**3.2**	-	-	-	-	-	-	-	-	**25.7**	**29.2**	**21.4**	**42.8**	**33.7**	-	-	-	-
Dissolved Gases(ug/L)																						
Ethane	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	< 1	< 1	**1.0**	**4.15**	**1.6**	**1.0**	< 10	< 12.4	-	-	-	-
Ethene	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	**16.6**	**15.4**	**2.7**	< 1	**1.8**	**3.91**	< 10	< 12.4	-	-	-	-
Methane	**0.59**	**2.6**	**10.4**	< 10	**7.3**	-	-	-	-	-	**228**	**366**	**16700**	**20400**	**19600**	**19700**	**28000**	**13000**	-	-	-	-
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	**0.084**	**0.012 J**	-	-	-	-	-	-	-	-	-	-	-	**1.8**	**0.82**	-	-	-	-
Butyric Acid	-	-	-	**0.069**	< 0.050	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-
Lactic Acid	-	-	-	**0.10**	**0.032 J**	-	-	-	-	-	-	-	-	-	-	-	**0.17**	**0.32**	-	-	-	-
Propionic Acid	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-
Pyruvic Acid	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	**1.0**	**2.7**	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Iron, Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Iron, Ferrous	< 0.10	< 0.10	< 0.50	**-**	**-**	**-**	**-**	**-**	**-**	**-**	< 0.10	**0.13**	< 0.10	< 0.10	**0.24**	**0.11**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Dissolved	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Volatile Organic Compounds (ug/L)																						
Acetone	< 25	< 25	< 500	< 25	-	-	-	-	-	-	**13.8 J**	-	**10.3 J**	**15.3 J**	**19.1 J**	< 25	< 25	-	-	-	-	-
Benzene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Bromobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Bromochloromethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Bromodichloromethane	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Bromoform	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Bromomethane	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-
2-Butanone (MEK)	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-
Carbon disulfide	< 2	< 2	< 40	-	-	-	-	-	-	-	**5.3**	-	< 2	**0.67 J**	**1.0 J**	**1.8 J**	-	-	-	-	-	-
Carbon tetrachloride	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Chlorobenzene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Chloroethane	< 2	< 2	< 40	< 1	-	-	-	-	-	-	< 2	-	< 2	< 2	< 2	< 2	< 1	-	-	-	-	-
Chloroform	< 1	**0.91 J**	< 20	< 1	-	-	-	-	-	-	**18**	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Chloromethane	-	-	-	< 1	-	-	-	< 10	< 10	< 10	-	-	-	-	-	-	< 1	-	-	-	< 200	< 100
2-Chlorotoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
4-Chlorotoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-	-	-	-
Dibromochloromethane	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
1,2-Dibromoethane (EDB)	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Dibromomethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,1-Dichloroethane	< 1	**1.5**	< 20	**1.2**	-	< 1	< 2	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 100	< 50
1,2-Dichloroethane	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
1,1-Dichloroethene	< 1	**4.3**	< 20	**3.4**	-	-	**2**	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	< 1	< 100	< 50
cis-1,2-Dichloroethene	**2.5**	**111**	**144**	**113**	**91.9**	**34**	**87**	-	-	-	< 1	< 2	**7.9**	**9**	**8.7**	**8**	**8.0**	**7.7**	< 1	**1**	-	-
trans-1,2-Dichloroethene	< 1	**0.49 J**	< 20	< 1	< 10	< 1	< 2	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-
1,2-Dichloropropane	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
1,3-Dichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
2,2-Dichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,1-Dichloropropene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
cis-1,3-Dichloropropene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
trans-1,3-Dichloropropene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Diisopropyl ether	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Ethylbenzene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Hexachloro-1,3-butadiene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
2-Hexanone	< 10	< 10	< 20	< 5	-	-	-	-	-	-	< 10	-	< 10	< 10	< 10	< 10	< 5	-	-	-	-	-
p-Isopropyltoluene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Methyl bromide	< 2	< 2	< 40	-	-	-	-	-	-	-	< 2	-	< 2	< 2	< 2	< 2	-	-	-	-	-	-
Methyl chloride	< 2	< 2	< 40	-	-	-	-	< 5	< 5	< 5	< 2	-	< 2	< 2	< 2	< 2	-	-	-	-	< 5	< 5
Methylene Chloride	< 5	< 5	< 100	< 2	-	< 4	< 4	-	-	-	**8.5**	-	< 2	< 2	< 2	< 2	< 2	-	< 4	< 4	-	-
Methyl ethyl ketone	< 5	< 5	< 100	-	-	-	-	-	-	-	< 5	-	< 5	< 5	< 5	< 5	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	< 5	< 5	< 100	< 5	-	-	-	-	-	-	**2.4 J**	-	< 5	< 5	< 5	< 5	< 5	-	-	-	-	-
Methyl-tert-butyl ether	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Naphthalene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Styrene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,1,2,2-Tetrachloroethane	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-
Tetrachloroethene	< 1	**1.2**	< 20	**1.6**	-	-	-	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	< 100	< 50
Toluene	< 1	< 1	< 20	< 1	-	-	-	-	-	-	< 1	-	**0.22 J**	**0.34J**	**0.44J**	**0.41J**	< 1	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,1,1-Trichloroethane	< 1	< 1	< 20	< 1	-	-	-	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	-	-	< 100	< 50
1,1,2-Trichloroethane	< 1	**0.43 J**	< 20	< 1	-	< 1	< 2	< 5	< 5	< 5	< 1	-	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 100	< 50
Trichloroethene	**31.8**	**1250**	**1250**	**1110**	**1070**	**420**	**1000**	< 5	< 5	**43**	< 1	**0.55 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3**	**2200**	**1400**
Trichlorofluoromethane	-	-	-	**1.3**	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
1,2,3-Trichloropropane	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Vinyl acetate	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-
Vinyl chloride	< 1	**0.59 J**	< 20	< 1	< 10	< 1	< 2	< 2	< 2	< 2	**0.83**	**1.1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 40	< 20
m&p-Xylene	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-	-	-	-
o-Xylene	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-
Xylene, Total	< 3	< 3	< 60	-	-	-	-	-	-	-	< 3	-	< 3	< 3	< 3	< 3	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-11I										MW-11S									
Sample Date	Dec-07	5/29/2009	8/21/2009	3/23/2010	7/1/2010	9/29/2010	11/17/2010	12/20/2011	2/20/2012	9/18/2015	9/8/2016	Mar-00	Aug-02	Dec-07	5/29/2009	8/21/2009	3/23/2010	7/1/2010	9/29/2010	11/17/2010	12/20/2011	2/20/2012
Field Parameters																						
Conductivity, Field (mS/cm)	-	**0.093**	-	**0.076**	-	-	**0.082**	**0.08**	**0.08**	**0.108**	**0.096**	-	-	-	**0.052**	-	**0.068**	-	-	**0.085**	**0.035**	**0.053**
Dissolved Oxygen, Field (mg/L)	-	**13**	-	**2.48**	-	-	**1.98**	**2.42**	**1.7**	**3.1**	**0.96**	-	-	-	**16.2**	-	**0.53**	-	-	**1.06**	**0.76**	**0.72**
ORP, Field (mV)	-	**5.8**	-	**-137.6**	-	-	**146.3**	**154**	**136.4**	**220**	**246**	-	-	-	**29.4**	-	**-150**	-	-	**-181.1**	**187**	**80.5**
pH, Field (NTU)	-	**6.44**	-	**6.1**	-	-	**6.23**	**5.82**	**5.96**	**5.82**	**5.41**	-	-	-	**5.7**	-	**5.15**	-	-	**5.03**	**5.25**	**5.19**
Temperature, Field (Deg C)	-	**17.5**	-	**16.13**	-	-	**16.23**	**16**	**15.3**	**18.74**	**19.45**	-	-	-	**16.8**	-	**13.78**	-	-	**17.47**	**16.3**	**13.6**
Turbidity, Field (NTU)	-	-	-	**78**	-	-	**5.2**	**4.3**	**2.4**	**2.4**	**0**	-	-	-	-	-	**35.2**	-	-	**4.35**	**4.7**	**4.6**
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	-	**39.6**	**33**	**39.7**	**38**	**45.1**	**40.1**	**37.9**	**39.2**	-	-	-	-	-	**7.9**	**9**	**9.8**	**10**	**12**	**7.5**	**6.5**	**9.5**
Carbon Dioxide	-	**110**	**89.2**	**126**	**146**	**134**	**82.5**	-	-	-	-	-	-	-	**84.8**	**92.1**	**127**	**83**	**130**	**70.6**	-	-
Chloride	-	**4**	**4.6**	**9.4**	**4.3**	-	-	-	-	-	-	-	-	-	**5.4**	**6.3**	**14.5**	**6.3**	-	-	-	-
Nitrate	-	**0.7**	**0.91**	**0.86**	**0.85**	**0.82**	**0.82**	**0.88**	**0.96**	-	-	-	-	-	< 0.1	**0.35**	**0.12**	**0.12**	**0.31**	**0.4**	**0.48**	< 0.2
Nitrite (as N)	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1	< 0.1	-	-	-	-	-	< 0.1	< 0.1	< 0.10	< 0.10	< 0,10	< 0.10	< 0.1	< 0.1
Nitrite/Nitrate Nitrogen	-	**0.7**	**0.91**	**0.86**	**0.85**	**0.82**	**0.82**	**0.88**	**0.96**	-	-	-	-	-	< 0.1	**0.35**	< 0.20	< 0.20	**0.31**	**0.4**	**0.48**	< 0.2
Sulfate	-	< 2	< 2	< 2	< 2	< 2	< 2	< 5	< 5	-	-	-	-	-	< 2	**2**	**4.9**	**2.7**	**3**	**3.4**	< 5	**6.1**
Sulfide	-	< 1	< 1	< 1	**23.5**	**1**	< 1	< 0.1	< 0.1	-	-	-	-	-	< 1	< 1	< 1	< 1	**1**	**1**	< 0.1	< 0.1
Total Organic Carbon (TOC)	-	-	-	-	< 1	< 1	< 1	**1.8**	**1.8**	-	-	-	-	-	-	-	-	< 1	< 1	< 1	**2**	**2.9**
Dissolved Gases(ug/L)																						
Ethane	-	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4
Ethene	-	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4	-	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 12.4
Methane	-	< 0.5	**0.76**	**7.13**	**0.93**	**0.40 J**	**0.38 J**	< 10	< 6.6	-	-	-	-	-	6.2	0.65	**52.7**	**2.91**	**3.07**	**14.8**	< 10	< 6.6
Volatile Fatty Acids(mg/L)																						
Acetic Acid	-	-	-	-	-	-	-	< 0.070	**0.012 J**	-	-	-	-	-	-	-	-	-	-	-	< 0.070	**0.025 J**
Butyric Acid	-	-	-	-	-	-	-	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050
Lactic Acid	-	-	-	-	-	-	-	< 0.10	**0.061 J**	-	-	-	-	-	-	-	-	-	-	-	< 0.10	**0.039 J**
Propionic Acid	-	-	-	-	-	-	-	< 0.050	**0.0089 J**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050
Pyruvic Acid	-	-	-	-	-	-	-	< 0.15	< 0.15	-	-	-	-	-	-	-	-	-	-	-	< 0.15	< 0.15
Dissolved Hydrogen (nM)																						
Hydrogen	-	-	-	-	-	-	-	**0.84**	**1.0**	-	-	-	-	-	-	-	-	-	-	-	**2.1**	**2.2**
Inorganic Compounds(ug/L)																						
Iron, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	-	-	-	-	-	-	-	< 0.1	< 0,1	< 0.10	< 0.10	< 0.10	< 0.10	-	-
Manganese, Dissolved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																						
Acetone	-	< 250	-	< 130	< 250	< 250	< 250	< 25	-	-	-	-	-	-	< 25	-	< 25	< 25	< 130	< 130	< 25	-
Benzene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Bromobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Bromochloromethane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Bromodichloromethane	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Bromoform	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Bromomethane	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-
2-Butanone (MEK)	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-
Carbon disulfide	-	< 20	-	< 10	< 20	< 20	< 20	-	-	-	-	-	-	-	< 2	-	< 2	< 2	< 10	< 10	-	-
Carbon tetrachloride	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Chlorobenzene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Chloroethane	-	< 20	-	< 10	< 20	< 20	< 20	< 1	-	-	-	-	-	-	< 2	-	< 2	< 2	< 10	< 10	< 1	-
Chloroform	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Chloromethane	< 5	-	-	-	-	-	-	< 1	-	-	-	< 50	< 20	< 5	-	-	-	-	-	-	< 1	-
2-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
4-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-
Dibromochloromethane	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,2-Dibromoethane (EDB)	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Dibromomethane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Dichlorodifluoromethane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,1-Dichloroethane	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	-	< 1	< 1	< 25	< 10	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,2-Dichloroethane	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,1-Dichloroethene	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	< 1	< 25	< 10	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	-
cis-1,2-Dichloroethene	**88**	**44.6**	**42.4**	**43**	**36.9**	**38.2**	**41.6**	**50**	**33.4**	**44**	**44**	-	-	**44**	**7.6**	**15.4**	**6.8**	**3.4**	**18.3**	**21.2**	**26.7**	**50.9**
trans-1,2-Dichloroethene	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	< 5	< 1	< 1	-	-	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	< 1
1,2-Dichloropropane	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,3-Dichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
2,2-Dichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,1-Dichloropropene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
cis-1,3-Dichloropropene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
trans-1,3-Dichloropropene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Diisopropyl ether	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Ethylbenzene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Hexachloro-1,3-butadiene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
2-Hexanone	-	< 100	-	< 50	< 100	< 100	< 100	< 5	-	-	-	-	-	-	< 10	-	< 10	< 10	< 50	< 50	< 5	-
p-Isopropyltoluene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Methyl bromide	-	< 20	-	< 10	< 20	< 20	< 20	-	-	-	-	-	-	-	< 2	-	< 2	< 2	< 10	< 10	-	-
Methyl chloride	< 5	< 20	-	< 10	< 20	< 20	< 20	-	-	-	-	< 25	< 10	< 5	< 2	-	< 2	< 2	< 10	< 10	-	-
Methylene Chloride	-	**13.9**	-	< 25	< 20	< 20	< 20	< 2	-	< 4	< 4	-	-	-	< 5	-	< 5	< 5	< 25	< 25	< 2	-
Methyl ethyl ketone	-	< 50	-	< 25	< 50	< 50	< 50	-	-	-	-	-	-	-	< 5	-	< 5	< 5	< 25	< 25	-	-
4-Methyl-2-pentanone (MIBK)	-	< 50	-	< 25	< 50	< 50	< 50	< 5	-	-	-	-	-	-	< 5	-	< 5	< 5	< 25	< 25	< 5	-
Methyl-tert-butyl ether	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Naphthalene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Styrene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,1,2,2-Tetrachloroethane	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Tetrachloroethene	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	< 25	< 10	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Toluene	-	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	-	-	-	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,2,3-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,1,1-Trichloroethane	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	-	-	-	< 25	< 10	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	-
1,1,2-Trichloroethane	< 5	< 10	-	< 5	< 10	< 10	< 10	< 1	-	< 1	< 1	< 25	< 10	< 5	< 1	-	< 1	< 1	< 5	< 5	< 1	-
Trichloroethene	**1900**	**1040**	**1060**	**747**	**872**	**798**	**804**	**766**	**540**	**490**	**510**	**690**	**300**	**860**	**40.3**	**401**	**64.2**	**52**	**369**	**389**	**356**	**183**
Trichlorofluoromethane	-	-	-	-	-	-	-	**1.4**	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
1,2,3-Trichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Vinyl acetate	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-
Vinyl chloride	< 2	< 10	< 10	< 5	< 10	< 10	< 10	< 1	< 5	< 1	< 1	**12**	< 4	< 2	< 1	< 5	< 1	< 1	< 5	< 5	< 1	< 1
m&p-Xylene	-	-	-	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-
o-Xylene	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-
Xylene, Total	-	< 30	-	< 15	< 30	< 30	< 30	-	-	-	-	-	-	-	< 3	-	< 3	< 3	< 15	< 15	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name			MW-12I		MW-12D	MW-13I	MW-14D		MW-14I		MW-15I	MW-16D							
Sample Date	9/18/2015	9/8/2016	Mar-00	Mar-10	Mar-00	Mar-00	Mar-00	12/20/2011	Mar-00	12/20/2011	Mar-00	8/4/2011	11/19/2010	12/22/2011	2/22/2012	2/22/2012	9/16/2015	9/7/2016	11/19/2010	8/4/2011
Field Parameters																				
Conductivity, Field (mS/cm)	**0.161**	**0.056**	-	-	-	-	-	**0.105**	-	**0.06**	-	**0.126**	-	**0.088**	**0.105**	**0.105**	**0.112**	**0.103**	-	**0.703**
Dissolved Oxygen, Field (mg/L)	**3.67**	**0.24**	-	-	-	-	-	**3.1**	-	**1.48**	-	**1.79**	-	**3.51**	**1.97**	**1.97**	**2.55**	**1.59**	-	**0.51**
ORP, Field (mV)	**261**	**330**	-	-	-	-	-	**154.9**	-	**85.1**	-	**386.2**	-	**84**	**124.3**	**124.3**	**176**	**266**	-	**290.6**
pH, Field (NTU)	**4.56**	**4.26**	-	-	-	-	-	**6.28**	-	**6.13**	-	**5.85**	-	**5.85**	**5.99**	**5.99**	**6.37**	**5.28**	-	**5.24**
Temperature, Field (Deg C)	**19.83**	**23.84**	-	-	-	-	-	**16**	-	**15.4**	-	**21.6**	-	**19.9**	**18.9**	**18.9**	**20.73**	**26.78**	-	**21.3**
Turbidity, Field (NTU)	**37.5**	**20.6**	-	-	-	-	-	**0.9**	-	**5.7**	-	**5.85**	-	**3.1**	**2.3**	**2.3**	**4.7**	**0**	-	**34.1**
General Chemistry (mg/L)																				
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-	-	**51.3**	-	**26**	-	**-**	-	**30.5**	-	-	-	-	-	-
Carbon Dioxide	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	-	**-**	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**
Chloride	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	-	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Nitrate	-	-	-	-	-	-	-	< 0.2	-	< 0.2	-	**1.2**	-	**1.1**	**1.2**	**1.2**	**-**	-	**-**	**7.2**
Nitrite (as N)	-	-	-	-	-	-	-	< 0.1	-	< 0.1	-	< 0.1	-	< 0.1	< 0.1	< 0.1	**-**	-	**-**	**0.27**
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-	-	< 0.2	-	< 0.2	-	**1.2**	-	**1.1**	**1.2**	**1.2**	**-**	-	**-**	**7.5**
Sulfate	-	-	-	-	-	-	-	< 5	-	< 5	-	**16.7**	-	**10.3**	-	-	-	-	-	**193**
Sulfide	-	-	-	-	-	-	-	< 0.1	-	< 0.1	-	-	-	< 0.1	< 0.1	< 0.1	-	-	-	-
Total Organic Carbon (TOC)	-	-	-	-	-	-	-	**1.5**	-	**1.5**	-	**12.8**	**-**	**2.2**	**1.8**	**1.9**	**-**	-	**-**	**3.5**
Dissolved Gases(ug/L)																				
Ethane	-	-	-	-	-	-	-	< 10	-	< 10	-	< 10	-	< 10	< 12.6		-	-	-	< 10
Ethene	-	-	-	-	-	-	-	< 10	-	< 10	-	< 10	-	< 10	< 12.6		-	-	-	< 10
Methane	-	-	-	-	-	-	-	< 10	-	**30**	-	< 10	**-**	< 10	< 6.6		**-**	-	**-**	46.8
Volatile Fatty Acids(mg/L)																				
Acetic Acid	-	-	-	-	-	-	-	< 0.070	-	< 0.070	-	-	**-**	< 0.050	**0.049 J**	**0.089**	**-**	-	**-**	-
Butyric Acid	-	-	-	-	-	-	-	< 0.050	-	< 0.050	-	-	**-**	< 0.050	**0.042 J**	**0.072**	**-**	-	**-**	-
Lactic Acid	-	-	-	-	-	-	-	**0.16**	-	**0.10**	-	**-**	**-**	< 0.10	**0.074 J**	**0.073 J**	**-**	-	**-**	-
Propionic Acid	-	-	-	-	-	-	-	< 0.050	-	< 0.050	-	-	**-**	< 0.050	**0.016 J**	**0.0089 J**	**-**	-	**-**	-
Pyruvic Acid	-	-	-	-	-	-	-	< 0.15	-	< 0.15	-	-	-	< 0.15	< 0.15	< 0.15	-	-	-	-
Dissolved Hydrogen (nM)																				
Hydrogen	-	-	-	-	-	-	-	**1.0**	-	**0.94**	-	**-**	**-**	**2.8**	**3.8**	**6.2**	**-**	-	**-**	-
Inorganic Compounds(ug/L)																				
Iron, Dissolved	**-**	**-**	-	-	-	-	-	**-**	-	**-**	-	< 50	**-**	**-**	**-**	**-**	**-**	**-**	**-**	< 50
Iron, Total	**-**	**-**	-	-	-	-	-	**-**	-	**-**	-	**80.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1150**
Iron, Ferrous	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Dissolved	**-**	**-**	-	-	-	-	-	**-**	-	**-**	-	**20.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1640**
Manganese, Total	**-**	**-**	-	-	-	-	-	**-**	-	**-**	-	**25.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1820**
Volatile Organic Compounds (ug/L)																				
Acetone	-	-	-	-	-	-	-	< 25	-	< 25	-	-	-	< 25	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Bromobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Bromochloromethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	< 2	-	< 2	-	-	-	< 2	-	-	-	-	-	-
2-Butanone (MEK)	-	-	-	-	-	-	-	< 5	-	< 5	-	-	-	< 5	-	-	-	-	-	-
Carbon disulfide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Chloroethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	< 1	-	**1.5**	-	-	-	**1.1**	-	-	-	-	-	-
Chloromethane	-	-	< 5	< 2	< 10	< 10	< 10	< 1	< 10	< 1	< 10	-	-	< 1	-	-	-	-	-	-
2-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	-	-	< 5	-	< 5	-	-	-	< 5	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Dibromomethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1-Dichloroethane	< 1	< 1	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	-	-	< 1	-	-	< 1	< 1	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1-Dichloroethene	-	< 1	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	-	-	< 1	-	-	-	< 1	-	-
cis-1,2-Dichloroethene	**30**	**29**	-	< 1	-	-	-	< 1	-	-	-	**27.3**	**52.9**	**34.2**	**28.2**	**28.8**	**36**	**43**	**7480**	**8220**
trans-1,2-Dichloroethene	< 1	< 1	**-**	< 1	**-**	**-**	**-**	< 1	**-**	< 1	**-**	< 1	-	< 1	< 1	< 1	< 1	< 1	-	24.1
1,2-Dichloropropane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,3-Dichloropropane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
2,2-Dichloropropane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1-Dichloropropene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Diisopropyl ether	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Ethylbenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Hexachloro-1,3-butadiene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
2-Hexanone	-	-	-	-	-	-	-	< 5	-	< 5	-	-	-	< 5	-	-	-	-	-	-
p-Isopropyltoluene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Methyl bromide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl chloride	-	-	< 5	< 2	< 5	< 5	< 5	-	< 5	-	< 5	-	-	-	-	-	-	-	-	-
Methylene Chloride	< 4	< 4	-	-	-	-	-	< 2	-	< 2	-	-	-	< 2	-	-	< 4	< 4	-	-
Methyl ethyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-	-	-	-	< 5	-	< 5	-	-	-	< 5	-	-	-	-	-	-
Methyl-tert-butyl ether	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Styrene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Tetrachloroethene	-	-	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	<1	-	< 1	-	-	-	-	-	**2.3**
Toluene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,1,1-Trichloroethane	-	-	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	-	-	< 1	-	-	-	-	-	-
1,1,2-Trichloroethane	< 1	< 1	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	-	-	< 1	-	-	< 1	< 1	-	-
Trichloroethene	**260**	**280**	< 5	< 1	< 5	< 5	< 5	< 1	< 5	< 1	< 5	**90.6**	**184**	**114**	**90.4**	**95.9**	**110**	**110**	**24600**	**19700**
Trichlorofluoromethane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
1,2,3-Trichloropropane	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	< 2	-	< 2	-	-	-	< 2	-	-	-	-	-	-
Vinyl chloride	< 1	< 1	< 2	< 1	< 2	< 2	< 2	< 1	< 2	< 1	< 2	< 1	**0.98 J**	< 1	< 1	< 1	< 1	< 1	**174 J**	**178**
m&p-Xylene	-	-	-	-	-	-	-	< 2	-	< 2	-	-	-	< 2	-	-	-	-	-	-
o-Xylene	-	-	-	-	-	-	-	< 1	-	< 1	-	-	-	< 1	-	-	-	-	-	-
Xylene, Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	MW-16I								RW-1												
Sample Date	12/22/2011	2/22/2012	11/12/2014	1/6/2015	2/23/2015	4/30/2015	9/16/2015	9/7/2016	Apr-00	Aug-02	Dec-07	5/27/2009	8/19/2009	11/9/2009	3/22/2010	6/29/2010	10/1/2010	11/19/2010	8/2/2011	12/19/2011	2/21/2012	5/27/2009
Field Parameters																						
Conductivity, Field (mS/cm)	**0.498**	**0.649**	-	-	-	-	**0.626**	**5.19**	-	-	-	**0.156**	-	**0.141**	**0.201**	-	-	**0.141**	**0.079**	**0.04**	**0.15**	**0.079**
Dissolved Oxygen, Field (mg/L)	**1.68**	**1.12**	-	-	-	-	**1.38**	**0.6**	-	-	-	**3.34**	-	**0.1**	**3.2**	-	-	**0.1**	**0.83**	**0.38**	**0.2**	**2.85**
ORP, Field (mV)	**125.4**	**162.4**	-	-	-	-	**-21**	**-118**	-	-	-	**16.9**	-	**73**	**-161.9**	-	-	**73**	**162.1**	**162.8**	**3.8**	**31.7**
pH, Field (NTU)	**5.32**	**5.42**	-	-	-	-	**6.31**	**6.15**	-	-	-	**6.19**	-	**5.75**	**6.68**	-	-	**5.75**	**5.81**	**5.31**	**5.95**	**5.89**
Temperature, Field (Deg C)	**20.2**	**19.3**	-	-	-	-	**21.33**	**23.84**	-	-	-	**19.78**	-	**20.55**	**16.5**	-	-	**20.55**	**28.1**	**19.8**	**19.2**	**20.64**
Turbidity, Field (NTU)	**5.2**	**1.9**	-	-	-	-	**8.7**	**41.3**	-	-	-	**-**	-	**1.23**	**3.67**	-	-	**1.23**	**4.8**	**-0.2**	**2.1**	**-**
General Chemistry (mg/L)																						
Alkalinity, Total (as CaCO3)	**25.2**	-	-	-	-	-	-	-	-	-	-	**70.6**	-	-	-	-	-	-	-	-	-	33
Carbon Dioxide	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**164**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**101**
Chloride	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.1**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.6**
Nitrate	**5.9**	**5.8**	-	< 0.10	< 0.10	**0.66**	-	-	-	-	-	**0.31**	-	-	-	-	-	-	**0.21**	-	-	0.76
Nitrite (as N)	**0.24**	**0.18**	-	< 0.050	< 0.050	< 0.050	-	-	-	-	-	< 0,10	-	-	-	-	-	-	< 0.1	-	-	< 0.1
Nitrite/Nitrate Nitrogen	**6.2**	**6**	-	-	-	-	-	-	-	-	-	**0.31**	-	-	-	-	-	-	**0.21**	-	-	0.76
Sulfate	**166**	-	**186**	**128**	**111**	**156**	-	-	-	-	-	< 2	-	-	-	-	-	-	< 5	-	-	< 2
Sulfide	< 0.1	< 0.1	-	-	-	-	-	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	< 1
Total Organic Carbon (TOC)	**11.3**	**12**	**5.9**	**5380**	**292**	**14.3**	-	-	-	-	-	-	-	-	-	-	-	-	**3.5**	-	-	-
Dissolved Gases(ug/L)																						
Ethane	< 10	< 12.6	-	-	-	-	-	-	-	-	-	**1.84**	-	-	-	-	-	-	< 10	-	-	< 1
Ethene	< 10	< 12.6	-	-	-	-	-	-	-	-	-	**1.48**	-	-	-	-	-	-	**232**	-	-	< 1
Methane	**27.7**	**35.8**	-	-	-	-	-	-	-	-	-	**1640**	-	-	-	-	-	-	< 10	-	-	**8.05**
Volatile Fatty Acids(mg/L)																						
Acetic Acid	< 0.070	**0.28**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Butyric Acid	< 0.050	**0.17**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Lactic Acid	< 0.10	**0.30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Propionic Acid	< 0.050	**0.023 J**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Pyruvic Acid	< 0.15	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Dissolved Hydrogen (nM)																						
Hydrogen	**4.7**	**6.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-
Inorganic Compounds(ug/L)																						
Iron, Dissolved	**-**	**-**	-	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	< 50	-	-	-
Iron, Total	**-**	**-**	< 0.200	**5.38**	**6.10**	**5.87**	-	-	-	-	-	**-**	-	-	-	-	-	-	**671**	-	-	-
Iron, Ferrous	**-**	**-**	-	**-**	-	-	-	-	-	-	-	**10.3**	-	-	-	-	-	-	**-**	-	-	< 0.10
Manganese, Dissolved	**-**	**-**	-	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**1220**	-	-	-
Manganese, Total	**-**	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**1440**	-	-	-
Volatile Organic Compounds (ug/L)																						
Acetone	< 25	-	< 200	**12000**	**2300**	**540**	-	-	-	-	-	< 25	-	< 130	< 130	< 130	< 130	-	-	< 25	-	< 25
Benzene	< 1	-	< 10	< 10	<5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Bromobenzene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Bromochloromethane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Bromodichloromethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Bromoform	< 1	-	< 40	< 40	< 20	< 40	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Bromomethane	< 2	-	< 10	< 10	< 5	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-
2-Butanone (MEK)	< 5	-	< 100	< 100	< 50	< 100	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-
Carbon disulfide	-	-	-	-	-	-	-	-	-	-	-	<2	-	< 10	< 10	< 10	< 10	-	-	-	-	<2
Carbon tetrachloride	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Chlorobenzene	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Chloroethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 2	-	< 10	< 10	< 10	< 10	-	-	< 1	-	< 2
Chloroform	**3.1**	-	< 10	**11**	< 5	< 10	-	-	-	-	-	**1.4**	-	< 5	< 5	< 5	**1.4 J**	-	-	**1.5**	-	**3.2**
Chloromethane	< 1	-	< 10	< 10	< 5	< 10	-	-	< 200	< 50	< 5	-	-	-	-	-	-	-	-	< 1	-	-
2-Chlorotoluene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
4-Chlorotoluene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2-Dibromo-3-chloropropane	< 5	-	< 50	< 50	< 25	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-
Dibromochloromethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,2-Dibromoethane (EDB)	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Dibromomethane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2-Dichlorobenzene	< 1	-	< 50	< 50	< 25	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,3-Dichlorobenzene	< 1	-	< 50	< 50	< 25	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,4-Dichlorobenzene	< 1	-	<50	<50	< 25	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Dichlorodifluoromethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1-Dichloroethane	**3.2**	-	< 10	< 10	< 5	< 10	< 20	< 1	< 200	< 50	< 5	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,2-Dichloroethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,1-Dichloroethene	**12.2**	-	**11**	< 10	**12**	**16**	-	-	< 200	< 50	< 5	< 1	-	< 5	< 5	< 5	**3.4 J**	-	-	< 1	-	< 1
cis-1,2-Dichloroethene	**7360**	**10600**	**6000**	**3400**	**6400**	**9400**	**15000**	**22000**	-	-	**90**	**19.1**	**157**	**19.1**	**503**	**291**	**824**	**2.5**	**198**	**404**	**784**	**2.8**
trans-1,2-Dichloroethene	**126**	< 100	**20**	**20**	**24**	**26**	**48**	**250**	**-**	-	< 5	< 1	-	< 5	< 5	< 5	< 5	-	< 1	< 1	< 5	< 1
1,2-Dichloropropane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,3-Dichloropropane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
2,2-Dichloropropane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1-Dichloropropene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
cis-1,3-Dichloropropene	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
trans-1,3-Dichloropropene	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Diisopropyl ether	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Ethylbenzene	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Hexachloro-1,3-butadiene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
2-Hexanone	< 5	-	< 100	< 100	< 50	< 100	-	-	-	-	-	< 10	-	< 50	< 50	< 50	< 50	-	-	< 5	-	< 10
p-Isopropyltoluene	< 1	-	< 50	< 50	< 25	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Methyl bromide	-	-	-	-	-	-	-	-	-	-	-	< 2	-	< 10	< 10	< 10	< 10	-	-	-	-	< 2
Methyl chloride	-	-	-	-	-	-	-	-	< 200	< 50	< 5	< 2	-	< 10	< 10	< 10	< 10	-	-	-	-	< 2
Methylene Chloride	**5.2**	-	< 40	< 40	< 20	< 40	< 80	< 4	-	-	-	**3.2**	-	< 25	< 25	< 25	< 25	-	< 2	< 2	-	**3.5**
Methyl ethyl ketone	-	-	-	-	-	-	-	-	-	-	-	< 5	-	< 25	< 25	< 25	< 25	-	-	-	-	< 5
4-Methyl-2-pentanone (MIBK)	< 5	-	< 100	< 100	< 50	< 100	-	-	-	-	-	< 5	-	< 25	< 25	< 25	< 25	-	-	< 5	-	< 5
Methyl-tert-butyl ether	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Naphthalene	**5.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Styrene	< 1	-	< 50	< 50	< 25	< 50	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,1,1,2-Tetrachloroethane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1,2,2-Tetrachloroethane	< 1	-	<10	<10	< 5	<10	-	-	-	-	-	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Tetrachloroethene	**1.7**	-	< 10	< 10	< 5	< 10	-	-	< 200	< 50	< 5	< 1	-	< 5	< 5	< 5	< 5	-	< 1	< 1	-	< 1
Toluene	**1.2**	-	< 10	< 10	< 5	< 10	-	-	-	-	-	< 1	-	< 5	**1.4 J**	< 5	< 5	-	-	< 1	-	< 1
1,2,3-Trichlorobenzene	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,2,4-Trichlorobenzene	< 1	-	< 50	< 50	< 25	< 50	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
1,1,1-Trichloroethane	< 1	-	< 10	< 10	< 5	< 10	-	-	< 200	< 50	< 5	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
1,1,2-Trichloroethane	**9.1**	-	<10	<10	< 5	<10	< 20	< 1	< 200	< 50	< 5	< 1	-	< 5	< 5	< 5	< 5	-	-	< 1	-	< 1
Trichloroethene	**17800**	**19700**	**12000**	**10000**	**12000**	**18000**	**13000**	**97**	**1500**	**930**	**810**	**98.3**	**341**	**261**	**10.3**	**30.6**	**1550**	**643**	**188**	**987**	**2390**	**52.7**
Trichlorofluoromethane	< 1	-	< 10	< 10	< 5	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	**3.3**	-	-
1,2,3-Trichloropropane	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Vinyl acetate	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-
Vinyl chloride	**109**	**164**	<120	**86**	**180**	**280**	**570**	**110**	**620**	**37**	< 2	**1.3**	**18.3**	**22.9**	**144**	**85**	**72.5**	**51**	**36.9**	**9.6**	**35.3**	< 1
m&p-Xylene	**3.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 2	-	-
o-Xylene	**8.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1	-	-
Xylene, Total	-	-	-	-	-	-	-	-	-	-	-	< 3	-	< 15	< 15	< 15	< 15	-	-	-	-	< 3

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	RW-2									RW-3						RW-4					SW-1				
Sample Date	8/19/2009	11/9/2009	3/22/2010	6/29/2010	10/1/2010	11/19/2010	8/2/2011	12/19/2011	2/22/2012	11/12/2009	8/2/2011	12/19/2011	2/22/2012	9/16/2015	9/8/2016	8/3/2011	12/19/2011	2/22/2012	9/16/2015	9/8/2016	9/23/2013	10/13/2014	6/23/2015	9/18/2015	9/23/2013
Field Parameters																									
Conductivity, Field (mS/cm)	-	**0.07**	**0.068**	-	-	**0.07**	**0.084**	**0.07**	**0.72**	-	**0.471**	**0.131**	**0.146**	**0.282**	**0.205**	**0.14**	**0.08**	**0.087**	**0.111**	**0.094**	-	-	-	**0.106**	-
Dissolved Oxygen, Field (mg/L)	-	**0.1**	**3.8**	-	-	**0.1**	**2.4**	**3.83**	**2.45**	-	**1.03**	**0.43**	**0.64**	**1.43**	**0.53**	**1.68**	**2.99**	**2.6**	**3.6**	**3.52**	-	-	-	**6.50**	-
ORP, Field (mV)	-	**200.2**	**-103**	-	-	**200.2**	**609**	**152.9**	**108.4**	-	**-91.7**	**102.2**	**67.6**	**30**	**84**	**26.5**	**144.2**	**109.5**	**193**	**125**	-	-	-	**-44**	-
pH, Field (NTU)	-	**5.94**	**6.03**	-	-	**5.94**	**3.38**	**6.13**	**6.15**	-	**11.1**	**8.95**	**9.5**	**7.95**	**6.54**	**7.14**	**6.54**	**6.66**	**7.09**	**6.26**	-	-	-	**7.44**	-
Temperature, Field (Deg C)	-	**17.74**	**18.94**	-	-	**17.74**	**23.9**	**19.6**	**18.2**	-	**25.4**	**19.8**	**17.9**	**21.68**	**23.73**	**21.5**	**19.8**	**17.2**	**20.52**	**22.73**	-	-	-	**18.66**	-
Turbidity, Field (NTU)	-	**0.21**	**2.5**	-	-	**0.21**	**0.2**	**11.5**	**1.5**	-	**1.9**	**5.1**	**4**	**0.5**	**57.2**	**22.8**	**5.8**	**4.6**	**3.7**	**243**	-	-	-	**7.5**	-
General Chemistry (mg/L)																									
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate	-	-	-	-	-	-	**0.76**	-	-	-	< 0.2	-	-	-	-	< 0.2	-	-	-	-	-	-	-	-	-
Nitrite (as N)	-	-	-	-	-	-	< 0.1	-	-	-	< 0.1	-	-	-	-	< 0.1	-	-	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-	**0.76**	-	-	-	< 0.2	-	-	-	-	< 0.2	-	-	-	-	-	-	-	-	-
Sulfate	-	-	-	-	-	-	< 5.0	-	-	-	**31.6**	-	-	-	-	**10.9**	-	-	-	-	-	-	-	-	-
Sulfide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	-	-	-	-	-	-	**1.6**	-	-	-	4.2	-	-	-	-	2.5	-	-	-	-	-	-	-	-	-
Dissolved Gases(ug/L)																									
Ethane	-	-	-	-	-	-	< 10	-	-	-	< 10	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-
Ethene	-	-	-	-	-	-	< 10	-	-	-	< 10	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-
Methane	-	-	-	-	-	-	< 10	-	-	-	< 10	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-
Volatile Fatty Acids(mg/L)																									
Acetic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)																									
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)																									
Iron, Dissolved	-	-	-	-	-	-	< 50	-	-	-	< 50	-	-	-	-	< 50	-	-	-	-	-	-	-	-	-
Iron, Total	-	-	-	-	-	-	< 50	-	-	-	< 50	-	-	-	-	**980**	-	-	-	-	-	-	-	-	-
Iron, Ferrous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese, Dissolved	-	-	-	-	-	-	< 5	-	-	-	< 5	-	-	-	-	**99.6**	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	< 5	-	-	-	< 5	-	-	-	-	**141**	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																									
Acetone	-	< 25	< 25	< 25	< 25	-	-	< 25	-	< 25	-	< 25	-	-	-	-	< 25	-	-	-	-	-	-	-	-
Benzene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	**3.0**	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromochloromethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromodichloromethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromoform	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	< 2	-	-	-	< 2	-	-	-	-	< 2	-	-	-	-	-	-	-	-
2-Butanone (MEK)	-	-	-	-	-	-	-	< 5	-	-	-	< 5	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Carbon disulfide	-	<2	<2	<2	<2	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Chlorobenzene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Chloroethane	-	< 2	< 2	< 2	< 2	-	-	< 1	-	< 2	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Chloroform	-	**2.6**	**2.6**	**2**	**2.6**	-	-	**1.9**	-	< 1	-	**4.6**	-	-	-	-	**2.1**	-	-	-	-	-	-	-	-
Chloromethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	-	-	< 5	-	-	-	< 5	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Dibromochloromethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dibromomethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	**6.5**	-	< 20	< 20	-	< 1	-	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichloroethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	**50.5**	-	-	**39**	-	< 1	-	-	< 1	-	-	-	-	-
cis-1,2-Dichloroethene	**1.9**	**2**	**2.8**	**2**	**2.5**	**373**	**2.7**	**3**	**2.6**	**0.43 J**	**92.8**	**678**	**768**	**770**	**900**	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1
trans-1,2-Dichloroethene	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	**6.5**	**29.2**	< 100	**33**	**51**	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichloropropane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,3-Dichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2,2-Dichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1-Dichloropropene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Diisopropyl ether	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Ethylbenzene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Hexachloro-1,3-butadiene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
2-Hexanone	-	< 10	< 10	< 10	< 10	-	-	< 5	-	< 10	-	< 5	-	-	-	-	< 5	-	-	-	-	-	-	-	-
p-Isopropyltoluene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Methyl bromide	-	< 2	< 2	< 2	< 2	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl chloride	-	< 2	< 2	< 2	< 2	-	-	-	-	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	< 2	< 2	< 2	< 2	-	-	< 2	-	< 2	-	**23.6**	-	< 80	< 80	-	< 2	-	< 4	< 4	< 5	< 5	< 4	< 4	< 5
Methyl ethyl ketone	-	< 5	< 5	< 5	< 5	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	< 5	< 5	< 5	< 5	-	-	< 5	-	< 5	-	< 5	-	-	-	-	< 5	-	-	-	-	-	-	-	-
Methyl-tert-butyl ether	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	-	-	< 1	-	-	-	**1.1**	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Styrene	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Tetrachloroethene	-	< 1	< 1	< 1	< 1	-	< 1	< 1	-	< 1	< 2	< 1	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-
Toluene	-	< 1	< 1	**0.26 J**	**0.21 J**	-	-	< 1	-	< 1	-	**2.8**	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	< 1	< 1	< 1	< 1	-	-	< 1	-	< 1	-	**4.5**	-	< 20	< 20	-	< 1	-	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Trichloroethene	**33.6**	**37.4**	**47.9**	**29.8**	**39.9**	**643**	**36**	**39.8**	**38.9**	**24.9**	**655**	**13100**	**16300**	**13000**	**13000**	< 1	**11.8**	**7.6**	**8**	**5**	< 1	< 5	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	-	-	-	-	-	-	< 1	-	-	-	< 1	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	< 2	-	-	-	< 2	-	-	-	-	< 2	-	-	-	-	-	-	-	-
Vinyl chloride	< 1	< 1	< 1	< 1	< 1	**51.5**	< 1	< 1	< 1	< 1	< 2	**2.1**	< 100	< 20	< 20	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1
m&p-Xylene	-	-	-	-	-	-	-	< 2	-	-	-	< 2	-	-	-	-	< 2	-	-	-	-	-	-	-	-
o-Xylene	-	-	-	-	-	-	-	< 1	-	-	-	**5.0**	-	-	-	-	< 1	-	-	-	-	-	-	-	-
Xylene, Total	-	< 3	< 3	< 3	< 3	-	-	-	-	< 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX C
HISTORICAL SUMMARY OF VOC CONCENTRATIONS
CARPENTER - GENERAL TIME FACILITY
ATHENS, GEORGIA

Location Name	SW-2			S-2		S-5	
Sample Date	10/13/2014	6/23/2015	9/18/2015	11/12/2009	12/27/2011	11/12/2009	12/27/2011
Field Parameters							
Conductivity, Field (mS/cm)	**-**	**-**	**0.105**	-	-	-	-
Dissolved Oxygen, Field (mg/L)	**-**	**-**	**6.86**	-	-	-	-
ORP, Field (mV)	**-**	**-**	**58**	-	-	-	-
pH, Field (NTU)	**-**	**-**	**7.49**	-	-	-	-
Temperature, Field (Deg C)	**-**	**-**	**19.92**	-	-	-	-
Turbidity, Field (NTU)	**-**	**-**	**19.1**	-	-	-	-
General Chemistry (mg/L)							
Alkalinity, Total (as CaCO3)	-	-	-	-	-	-	-
Carbon Dioxide	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Chloride	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Nitrate	-	-	-	-	-	-	-
Nitrite (as N)	-	-	-	-	-	-	-
Nitrite/Nitrate Nitrogen	-	-	-	-	-	-	-
Sulfate	-	-	-	-	-	-	-
Sulfide	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	-	-	-	-	-	-	-
Dissolved Gases(ug/L)							
Ethane	-	-	-	-	-	-	-
Ethene	-	-	-	-	-	-	-
Methane	-	-	-	-	-	-	-
Volatile Fatty Acids(mg/L)							
Acetic Acid	-	-	-	-	-	-	-
Butyric Acid	-	-	-	-	-	-	-
Lactic Acid	-	-	-	-	-	-	-
Propionic Acid	-	-	-	-	-	-	-
Pyruvic Acid	-	-	-	-	-	-	-
Dissolved Hydrogen (nM)							
Hydrogen	-	-	-	-	-	-	-
Inorganic Compounds(ug/L)							
Iron, Dissolved	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Iron, Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Iron, Ferrous	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Dissolved	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Manganese, Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Volatile Organic Compounds (ug/L)							
Acetone	-	-	-	< 25	< 25	< 25	< 25
Benzene	-	-	-	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-	< 1	-	< 1
Bromochloromethane	-	-	-	-	< 1	-	< 1
Bromodichloromethane	-	-	-	< 1	< 1	< 1	< 1
Bromoform	-	-	-	< 1	< 1	< 1	< 1
Bromomethane	-	-	-	-	< 2	-	< 2
2-Butanone (MEK)	-	-	-	-	< 5	-	< 5
Carbon disulfide	-	-	-	<2	-	<2	-
Carbon tetrachloride	-	-	-	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	< 2	< 1	< 2	< 1
Chloroform	-	-	-	< 1	< 1	< 1	< 1
Chloromethane	-	-	-	-	< 1	-	< 1
2-Chlorotoluene	-	-	-	-	< 1	-	< 1
4-Chlorotoluene	-	-	-	-	< 1	-	< 1
1,2-Dibromo-3-chloropropane	-	-	-	-	< 5	-	< 5
Dibromochloromethane	-	-	-	< 1	< 1	< 1	< 1
1,2-Dibromoethane (EDB)	-	-	-	-	< 1	-	< 1
Dibromomethane	-	-	-	-	< 1	-	< 1
1,2-Dichlorobenzene	-	-	-	-	< 1	-	< 1
1,3-Dichlorobenzene	-	-	-	-	< 1	-	< 1
1,4-Dichlorobenzene	-	-	-	-	< 1	-	< 1
Dichlorodifluoromethane	-	-	-	-	< 1	-	< 1
1,1-Dichloroethane	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	-	-	-	< 1	< 1	< 1	< 1
1,1-Dichloroethene	-	-	-	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 5	< 1	< 1	**6.2**	**1.7**	< 1	< 1
trans-1,2-Dichloroethene	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	-	-	-	< 1	< 1	< 1	< 1
1,3-Dichloropropane	-	-	-	-	< 1	-	< 1
2,2-Dichloropropane	-	-	-	-	< 1	-	< 1
1,1-Dichloropropene	-	-	-	-	< 1	-	< 1
cis-1,3-Dichloropropene	-	-	-	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	-	-	-	< 1	< 1	< 1	< 1
Diisopropyl ether	-	-	-	-	< 1	-	< 1
Ethylbenzene	-	-	-	< 1	< 1	< 1	< 1
Hexachloro-1,3-butadiene	-	-	-	-	< 1	-	< 1
2-Hexanone	-	-	-	< 10	< 5	< 10	< 5
p-Isopropyltoluene	-	-	-	-	< 1	-	< 1
Methyl bromide	-	-	-	< 2	-	< 2	-
Methyl chloride	-	-	-	< 2	-	< 2	-
Methylene Chloride	< 5	< 4	< 4	< 2	< 2	< 2	< 2
Methyl ethyl ketone	-	-	-	< 5	-	< 5	-
4-Methyl-2-pentanone (MIBK)	-	-	-	< 5	< 5	< 5	< 5
Methyl-tert-butyl ether	-	-	-	-	< 1	-	< 1
Naphthalene	-	-	-	-	< 1	-	< 1
Styrene	-	-	-	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	-	-	-	-	< 1	-	< 1
1,1,2,2-Tetrachloroethane	-	-	-	< 1	< 1	< 1	< 1
Tetrachloroethene	-	-	-	< 1	< 1	< 1	< 1
Toluene	-	-	-	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	-	-	-	-	< 1	-	< 1
1,2,4-Trichlorobenzene	-	-	-	-	< 1	-	< 1
1,1,1-Trichloroethane	-	-	-	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 5	< 1	< 1	**57.6**	**13.1**	< 1	< 1
Trichlorofluoromethane	-	-	-	-	< 1	-	< 1
1,2,3-Trichloropropane	-	-	-	-	< 1	-	< 1
Vinyl acetate	-	-	-	-	< 2	-	< 2
Vinyl chloride	< 2	< 1	< 1	< 1	< 1	< 1	< 1
m&p-Xylene	-	-	-	-	< 2	-	< 2
o-Xylene	-	-	-	-	< 1	-	< 1
Xylene, Total	-	-	-	< 3	-	< 3	-

Notes and Abbreviations:
1. Results shown in **bold** were detected.
2. < - Not detected above the laboratory detection limit.
3. Only detected compounds are shown in table.
4. - Not analyzed.
5. ND = Non Detect

APPENDIX D

Labor Summary

HALEY ALDRICH

APPENDIX D

LABOR SUMMARY

FORMER GENERAL TIME FACILITY - ATHENS, GA

VOLUNTARY REMEDIATION PROGRAM (HIS# 10355)

Month-Year	Type Service	Hours	Description
April-18	PE/PM	13	Project Management
	Support	43.25	Report Preparation
	Senior Geologist	0.5	Project Coordination
May-18	Support	18	Technical
	Senior Geologist	3	Project Coordination
June-18	PE/PM	1	Project Management
	Support	1	Technical
	Senior Geologist	4.5	Project Coordination
August-18	PE/PM	1	Project Management
	Support	69.25	Sample Collection
September-18	PE/PM	2	Project Management
	Support	40.25	Sample Collection/Report Preparation