VOLUNTARY REMEDIATION PROGRAM STATUS REPORT NO. 5

Former Automatic Sprinkler Site
162 East Meadowlake Parkway
Swainsboro, Emanuel County, Georgia
HSI Site No. 10268

Submitted to:
Georgia Department of Natural Resources
Environmental Protection Division
Hazardous Site Response and Remediation Branch
Suite 1462, East Tower
2 Martin Luther King Jr. Drive, SE
Atlanta Georgia 30334

Submitted by:
Scott Technologies, Inc.
9 Roszel Road
Princeton, New Jersey 08540

Prepared by:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road
Kennesaw, Georgia 30144

August 19, 2014

AMEC Project No. 6125-08-0149

August 19, 2014

Mr. David Brownlee
Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King Jr. Drive, Suite 1462 East Tower
Atlanta, Georgia 30334

Subject: **Voluntary Remediation Plan Status Report No. 5**
Former Automatic Sprinkler Site, Swainsboro, Georgia
HSI Site No. 10268
AMEC Project 6125080149

Dear Mr. Brownlee:

AMEC Environment & Infrastructure, Inc. is pleased to provide Georgia Environmental Protection Division with the attached Status Report No. 5 for Voluntary Remediation Program activities for the Former Automatic Sprinkler Site in Swainsboro, Emanuel County, Georgia (HSI Site No. 10268). The report covers the activities conducted between February and July 2014.

Should you have any questions, please contact us at (770) 421-3400.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Tanya Kinnard, CHMM
Senior Professional

Gregory J. Wrenn, P.E.
Associate/Project Manager

GJW:dp

Attachment: VRP Status Report No. 5

cc: Stuart Rixman, Tyco International
Joseph Janeczek, Tyco International
Anita Bucci, Kongsberg Automotive
Jack Bareford, Swainsboro Emanuel County Joint Development Authority

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1.0 PE 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/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

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."

Gregory J. Wrenn/ Georgia P.E. #25565 — August 19, 2014

Printed Name and GA PE Number — Date

Signature and Stamp

2.0 INTRODUCTION AND BACKGROUND

This Voluntary Remediation Program Semi-Annual Status Report No. 5 (Status Report) was prepared in accordance with the Voluntary Remediation Program (VRP) for the Scott Technologies site, Hazardous Site Inventory (HSI) No.10268. The Georgia Environmental Protection Division (EPD) letter, dated February 24, 2012, accepted the site into the VRP and requested submittal of semi-annual VRP status reports. This fifth Status Report covers the activities conducted subsequent to Semi-Annual Status Report No. 4 submitted to the EPD on February 20, 2014.

The site is located at 162 East Meadowlake Parkway, Swainsboro, Georgia. Figure 1 shows the site location. Figure 2 presents the site layout, existing monitoring well locations, and previous surface water sampling locations. This 6.91-acre property is part of a larger industrial development located southeast of the center of Swainsboro. East Meadowlake Parkway forms the northern boundary of the site. Approximately 47 acres of undeveloped land are located north of the site and East Meadowlake Parkway. A publicly owned wastewater treatment plant is located to the northwest. A manufacturing facility occupies property to the east. Space Place Road and another industrial facility (Space Place) are located to the south.

Before 1967, the property was agricultural or lightly wooded land. The property was initially developed by Automatic Sprinkler Corporation of America (ASCOA), a subsidiary of Figgie International, Inc. Figgie International changed its name to Scott Technologies, Inc. (STI). STI Properties, Inc. is an affiliate of Scott Technologies, Inc. and is responsible for their real estate operations. In 2001, Tyco Fire Protection Products acquired STI, but STI is the legal entity responsible for addressing the environmental issues related to operations of the former ASCOA site. The operation at 162 East Meadowlake Parkway reportedly began in 1967 and continued until approximately 1992. In 1994, the property ownership was transferred to the Swainsboro-Emanuel County Joint Development Authority. The Swainsboro-Emanuel County Joint Development Authority currently owns the property and leases the facility to Kongsberg Automotive. Kongsberg Automotive manufactures engine parts at the facility.

Early environmental investigations (1997 through 2000) were focused on metal (lead and zinc) impacts to soils. Soils with lead and zinc impacts were excavated and disposed of properly. Confirmation sampling indicated that the formerly metal-impacted areas complied with Type 3 Risk Reduction Standards (RRS). However, during the course of the investigations, volatile organic compounds (VOCs) were detected in the subsurface. The VOC impacts have been the primary focus of the recent environmental work at the site. A summary of applicable RRS is included as Table 1. The environmental history of the site is summarized as follows:

- The site was used for manufacturing fire control components from 1967 to 1992.
- The site was listed on the Georgia Hazardous Site Inventory (HSI) in June 1994.
- Figgie Properties conveyed the property to the Swainsboro-Emmanuel County Joint Development Authority in November 1994.
- A Consent Order for assessment/remediation of the site under the Georgia Hazardous Site Response Act (HSRA) was executed between Georgia EPD and Figgie Properties in October 1997.
- Assessment and remediation activities were conducted between 1998 and 2002, including the removal of metal-impacted soil, and two short-term multi-phase extraction events, which

removed volatile organic compounds (VOCs) in soil vapor and groundwater from a small isolated "hot spot" around MW-8.

- A Corrective Action Plan (CAP) containing contaminant transport modeling and proposing to address VOC-impacted groundwater via monitored natural attenuation (MNA) was submitted to EPD in December 2002. BIOCHLOR (an EPA model for predicting potential chlorinated VOC concentrations over time and distance) was used to evaluate the fate and transport of VOCs in groundwater. The U.S. Environmental Protection Agency (EPA) MNA Screening Matrix screening score indicated "strong evidence for natural anaerobic biodegradation of chlorinated constituents."
- EPD approved MNA as a potentially appropriate corrective action in August 2003 and requested continued MNA monitoring to evaluate trends in contaminant concentrations.
- MNA demonstration monitoring was conducted between 2003 and 2010.
- In February 2011, based upon the predicted 74-year remedial period, the HSRA program requested evaluation of corrective action enhancements to reduce the clean-up time.
- In April 2011, STI submitted the VRP Application in order to enroll in the Georgia Voluntary Remediation Program. An EPD comment letter dated September 8, 2011 requesting additional information resulted in a VRP Application Addendum submitted by STI on November 14, 2011. EPD letters dated February 24, 2012 accepted STI into the VRP and put forth comments to be addressed during implementation of the VRP.
- VRP Status Report No. 1 and responses to EPD comments (February 24, 2012) were submitted to EPD on August 23, 2012.
- EPD issued comments on the VRP Status Report No. 1 in correspondence dated December 27, 2012.
- VRP Status Report No. 2 and responses to EPD comments (December 27, 2012) were submitted to EPD on February 20, 2013.
- EPD issued comments on VRP Status Report No. 2 in correspondence dated April 9, 2013.
- A 24-hour high vacuum extraction (HVE) event was conducted beginning on April 30, 2013 using MW-8 and MW-19 as extraction wells. Approximately 1,600 gallons of fluid were recovered during the HVE event. The extracted fluids were treated on-site using an air stripper and then transported to the Swainsboro publicly owned treatment works (POTW) for disposal following confirmation of treatment to acceptable levels.
- VRP Status Report No. 3, which addressed EPD comments dated April 9, 2013, was submitted to EPD on August 14, 2013.
- VRP Status Report No. 4, which addressed EPD comments (September 13, 2013), was submitted to EPD on February 20, 2014.
- EPD issued comments on VRP Status Report No. 4 in correspondence dated May 23, 2014, and these comments are addressed herein.
- A 24-hour HVE event was conducted beginning on July 8, 2014 using MW-8 and MW-19 as extraction wells. Approximately 1,250 gallons of fluid were recovered during the HVE event. The extracted fluids were treated on-site using activated carbon and then transported to the Swainsboro POTW for disposal following confirmation of treatment to acceptable levels.

3.0 WORK PERFORMED DURING REPORTING PERIOD

The activities currently identified to be conducted at the STI site under the VRP are outlined in the VRP Application and VRP Application Addendum, dated April 29, 2011, and November 14, 2011, respectively, and the EPD VRP approval and comment letters dated February 24, 2012. A groundwater and surface water sampling event was conducted at the site in June 2014. An additional voluntary remediation activity (not specified in the VRP Application or VRP Application Addendum), a high vacuum extraction (HVE) event, was conducted during this reporting period to address the area of higher VOC concentrations around monitoring wells MW-8 and MW-19. Additional sampling was conducted to evaluate further the oily substance observed in monitoring well MW-10 during the June 2014 sampling event. These activities are described herein.

3.1 Financial Assurance Update

Documentation of financial assurance for implementation of the VRP at the site was submitted to EPD on May 30, 2012. The financial assurance mechanism is an irrevocable letter of credit for $525,000, which is well in excess of the $190,000 estimated cost to implement the VRP submitted in the VRP Application Addendum. The letter of credit automatically renews each year on March 25. The current estimated cost to implement the VRP is included as Table 2. The estimate contains a contingency cost allowance for conducting three additional HVE events (that were not part of the approved VRP). The current estimated cost for continued VRP implementation is $176,540. Based upon the current site data, the financial assurance appears sufficient for completion of the VRP implementation at the site.

3.2 Groundwater and Surface Water Sampling

Groundwater and surface water sampling was conducted on June 2-5, 2014. Prior to collecting groundwater samples, the depth to water was measured in the site monitoring wells. The depth to water measurements and corresponding groundwater elevations for this gauging event, as well as historical data dating back to 2008, are summarized on Table 3. The June 2014 groundwater elevations in the shallow zone averaged approximately 0.49 foot higher in elevation than those measured during the December 2013 sampling event. The measured groundwater elevations in the wells screened in the deep zone were between 0.06 feet higher (MW-1D) and 0.46 feet lower (MW-2D) in comparison to their elevations measured in December 2013. Shallow zone potentiometric surface maps for June 2014 and December 2013 are presented as Figures 3a and 3b, respectively. The shallow zone potentiometric surface maps continue to show groundwater flow generally to be northeast, which is consistent with historical data. Deep zone potentiometric surface maps for June 2014 and December 2013 are presented as Figures 4a and 4b, respectively. Groundwater flow in the deep zone is generally to the east, and is consistent with historical data.

Water samples were collected from select monitoring wells and surface water sampling locations on June 3-5, 2014. Groundwater samples were collected from shallow zone monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, MW-9/9R, MW-10, MW-11, MW-12, MW-15, MW-18, MW-19, MW-20, and MW-21. A groundwater sample was also collected from deep zone monitoring well MW-20D.

Low flow/low stress purging methodology employing a peristaltic pump was used to purge and sample the monitoring wells in general accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD) Groundwater Sampling Procedure SESDPROC-301-R3 (March 2013). The samples were collected using a peristaltic pump by means of the "soda-straw" method as described in SESD 4.3.1.2.7. The groundwater samples, excluding MW-10, were analyzed for site-specific VOCs using USEPA Method 8260B. MW-10 was analyzed for TPH DRO (Diesel Range Organics) using USEPA Method 8015, and Polychlorinated Biphenyls (PCBs) using USEPA method SW8082A to further investigate the presence of the previously observed oily substance. Appendix A contains the laboratory analytical reports for groundwater and surface water samples. Appendix B contains copies of groundwater sampling logs.

The analytical results for the June 2014 groundwater sampling event are summarized on Table 4, along with historical analytical results. Constituent concentrations were similar to prior results, with generally stable or decreasing trends. Figure 5 shows the results of the June 2014 event and the interpreted extent of VOCs in groundwater. No VOCs were reported above their method detection limits in monitoring well MW-20D during the June 2014 sampling event, thus indicating vertical delineation. Trend graphs (Appendix C) were prepared for wells with consistent groundwater constituent concentrations exceeding the calculated RRS. VOCs were not detected in off-site monitoring wells. The laboratory analytical report is provided in Appendix A.

Surface water samples SW-5 and SW-6 were collected from the unnamed tributary of Hughes Prong (which serves as the nearest discharge boundary for shallow groundwater) as well as the drainage ditch along the eastern property boundary. This unnamed tributary is approximately 530 feet down gradient of MW-8. Surface water samples SW-2 and SW-4 were collected from the drainage ditch downgradient of the culvert that flows beneath Meadowlake Parkway, but prior to the point where the ditch discharges to the unnamed tributary of Hughes Prong. The surface water sample locations are shown on Figure 6. It is thought that these locations are more representative of groundwater to surface water discharge than surface water samples collected from the low-lying area immediately east of the site, which does not have a clearly defined channel and is more likely a groundwater recharge area. The surface water samples were analyzed for site-specific VOCs using USEPA Method 8260B. The groundwater and surface water samples were packaged in ice and transported by AMEC personnel under chain-of-custody protocol to the laboratory, Analytical Environmental Services (AES) in Atlanta, Georgia. The laboratory analytical report is provided in Appendix A.

As shown on Table 5, all surface water sample results from the June 2014 sampling event were below the detection limits for all analyzed constituents. This is consistent with past results. The analytical results for surface water samples are summarized on Figure 6.

3.3 Evaluation of Oily Substance in MW-10

The sampling of MW-10, which is not part of the routine sampling under the VRP, was added during the June 2013 sampling event and continued during the December 2013 and June 2014 sampling events to evaluate further the presence of an unknown pale yellow oily substance detected during fluid level gauging in December 2012. MW-10 was gauged and bailed on April 29, 2013 during the HVE event, but no evidence of the oily substance was observed or measured at

that time. During the June 2013 sampling event, MW-10 was again gauged and a light non-aqueous phase liquid (LNAPL) thickness of approximately 0.03 feet was present. In June 2013, prior to sampling groundwater from MW-10, several attempts were made to collect the LNAPL by "sipping" with the peristaltic pump and by skimming with a bailer, but only 4-5 milliliter (ml) of the substance was recovered. No recharge of the substance was measured or observed after the well was allowed to recover overnight. Groundwater from MW-10 was submitted for analysis for the full suite of VOCs under USEPA Method 8260B. The analytical results for groundwater collected from MW-10 during the June 2013 sampling event were below the method detection limit for all VOCs. Further investigation of MW-10 during the December 2013 sampling event did not indicate the presence of the oily substance. MW-10 showed analytical results below the laboratory reporting limits for total oil and grease, SVOCs, and gasoline range organics (GRO). MW-10 had a detection of 0.31 mg/l for diesel range organics (DRO) in December 2013. MW-10 was again gauged and sampled during the June 2014 event for DRO and PCBs using USEPA method 8015C and 8082A. PCBs and DRO were both below laboratory reporting limits in June 2014.

3.4 High Vacuum Extraction Event

In accordance with the conclusions from the prior VRP Status Report and as requested in EPD's May 23, 2014 letter, on July 8, 2014 a 24-hour HVE event was conducted at the site using monitoring wells MW-8 and MW-19 as extraction wells. The HVE event was conducted by Brown Remediation, Inc. with AMEC oversight. The extraction was conducted with drop tubes initially set approximately 2-3 feet into water. An average vacuum of 12.5 inches of mercury was applied to each well to extract vapors and entrained liquids. The drop tubes were lowered as the water level dropped during the event to maintain fluid recovery and to induce a cone of depression, thus increasing the zone of influence. The fluid level in MW-8 drew down approximately 5.81 feet, and the fluid level in MW-19 drew down approximately 6.68 feet during the event. Water levels in monitoring wells surrounding MW-8 and MW-19 dropped by 0.23 feet (MW-18), 0.32 feet (MW-3), 0.15 (MW-11), 0.10 feet (MW-20), and 0.08 feet (MW-21) over the course of the event. Vacuum influence was gauged in the same wells, but was only observed in MW-18 and MW-21. Based upon organic vapor analyzer (OVA) readings collected over the 24-hour extraction period, an estimated 181 pounds of vapor phase chlorinated compounds were removed during the event. The extracted fluids were directed through an air/water separator and extracted vapors were directed through a mobile thermal oxidizer for treatment, as part of the contractor's normal process, prior to emission to the atmosphere.

A total of approximately 1,250 gallons of water was recovered during the event. The extracted water was pumped from the vacuum truck tank through activated carbon for treatment, temporarily stored in an on-site tanker truck, sampled, and transported to the Swainsboro publicly owned treatment works (POTW) for disposal following the confirmation of treatment to prescribed limits. A sample of the activated carbon treated effluent was collected and submitted to TestAmerica Laboratory in Savannah, Georgia for 24-hour turnaround time for VOCs by EPA method 8260B. The HVE extracted water was reported below the detection limit for the constituents of concern for the site. The laboratory results for the activated carbon effluent sample are included in Appendix A. The HVE contractor report and documentation of fluid disposal are included as Appendix D.

4.0 GROUNDWATER MODELING UPDATE

The groundwater fate and transport BIOCHLOR model was not updated as part of this Status Report. In the three primary monitoring wells used for model calibration (MW-8, MW-15, and MW-20), VOC concentrations continue to correlate reasonably well to the previous model predictions, therefore it was not necessary to update the BIOCHLOR model for the June 2014 event. The BIOCHLOR model will be updated after the upcoming December 2014 sampling event.

5.0 CONCLUSIONS

The June 2014 groundwater flow direction is consistent with previous data. No VOC impacts were detected in the deeper zone, no surface water impacts were detected, and the shallow groundwater VOC plume appears to be generally degrading and shrinking. The supplemental HVE event conducted in July 2014 recovered an estimated 181 pounds of chlorinated compounds, and will help to improve the effectiveness of ongoing MNA. The land surrounding the site is industrial or undeveloped and is supplied with public water. Therefore, no complete pathways for exposure to contaminants are present. Vapor intrusion modeling does not indicate that the VOCs in groundwater pose a risk to on-site structures. The data does not suggest that revisions to the conceptual site model are necessary.

Further evaluation of the previously observed oily substance present in MW-10 in December 2012 included analyzing the groundwater from MW-10 for DRO and PCBs using USEPA Method 8015C and 8082A. Results of the groundwater investigation at MW-10 indicate the presence of the oily substance is not related to the chlorinated solvent release being addressed by STI. In conjunction with the prior sampling results, the June 2014 sampling results indicate that no further evaluation of the oily substance is necessary.

The groundwater analytical data continues to support MNA as an appropriate corrective action for the site. The BIOCHLOR predictions do not indicate that contaminants will affect the nearest point of exposure (POE), the unnamed tributary of Hughes Prong. Furthermore, it appears unlikely that groundwater contaminant concentration above applicable standards will be detected beyond the down-gradient property boundary. The previous BIOCHLOR predictions indicate an estimated cleanup timeframe of approximately 74 years before MNA will reduce on-site concentrations to drinking water levels. Therefore, a Uniform Environmental Covenant (UEC) will be executed to prohibit the use of groundwater. Assuming that the next sampling event does not indicate that adjacent properties are at risk of impact above MCLs and thus may need to be included in the covenant, the execution of the environmental covenant will be initiated in 2015. It is anticipated that the UEC will be in place by the end of the 5-year VRP evaluation period. The need for additional HVE events, or other remediation enhancements, to reduce contaminant mass and to help accelerate the cleanup timeframe will continue to be evaluated. An interim sampling event from MW-8 and MW-19 will be conducted in September 2014 to assist in this evaluation. The next routine groundwater sampling event will be conducted in the December 2014 timeframe with the next VRP status report scheduled for submittal by February 24, 2015. An updated milestone schedule for VRP implementation activities is included as Figure 7.

6.0 PROFESSIONAL HOURS SERVICES THIS PERIOD

AMEC Environment & Infrastructure, Inc. has provided 199.3 professional service hours for VRP implementation from January 25, 2014 through July 11, 2014. The registered professional engineer responsible for implementation of the VRP at this site is Mr. Gregory Wrenn. Mr. Wrenn has personally charged 25.5 labor hours to the project to direct and review the various aspects of implementation of the VRP during this reporting period. Table six shows a monthly summary of hours invoiced and a description of services for this reporting period.

TABLES

STI Properties, Inc.
Swainsboro, GA

Table 1
Summary of Delineation Criteria and Cleanup Standards

August 2014

Soil Constituents	Delineation Criteria	Type 3 Surface Soil Cleanup Value	Type 3 Subsurface Soil Cleanup Value	RRS Data Source
	mg/kg	mg/kg	mg/kg	
Arsenic	20	38	41	Type 3, Jan 2000 CAP
Barium	1000	1000	1000	Type 3, Jan 2000 CAP
Cadmium	2	39	39	Type 3, Jan 2000 CAP
Chromium	100	110	1200	Type 3, Jan 2000 CAP
Copper	100	1500	1500	Type 3, Jan 2000 CAP
Lead	75	400	400	{Revised per HSRA Rule Change}
Mercury	0.5	17	17	Type 3, Jan 2000 CAP
Nickel	50	420	420	Type 3, Jan 2000 CAP
Silver	2	10	10	Type 3, Jan 2000 CAP
Vanadium	100	100	100	Type 3, Jan 2000 CAP
Zinc	100	2800	2800	Type 3, Jan 2000 CAP
1,1,1-Trichloroethane	20	20	20	Type 3, VRP Appl Addendum, Appendix C
1,1,2,2-Tetrachloroethane	0.13	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
1,1,2-Trichloroethane	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
1,1-Dichloroethene	0.7	0.7	0.7	Type 3, VRP Appl Addendum, Appendix C
1,2-Dichloroethane	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
cis-1,2-Dichloroethene	7	7	7	Type 3, VRP Appl Addendum, Appendix C
Trichloroethene	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
Vinyl Chloride	0.2	0.2	0.2	Type 3, VRP Appl Addendum, Appendix C
Groundwater Constituents	**mg/L**	**Groundwater Cleanup Value mg/L**		
Cadmium	0.005	0.005		Type 3, Jan 2000 CAP
Chromium	0.1	0.1		Type 3, Jan 2000 CAP
Copper	1.3	1.3		Type 3, Jan 2000 CAP
Lead	0.015	0.015		Type 3, Jan 2000 CAP
Zinc	2	2		Type 3, Jan 2000 CAP
Mercury	0.002	0.002		Type 3, Jan 2000 CAP
1,1,1-Trichloroethane	0.2	13		Type 4, VRP Appl Addendum, Appendix C
1,1,2,2-Tetrachloroethane	0.001	0.005		Type 3 {Reporting Limit}, VRP Addendum, Appendix C
1,1,2-Trichloroethane	0.005	0.005		Type 3, VRP Appl Addendum, Appendix C
1,1-Dichloroethene	0.007	0.52		Type 4, VRP Appl Addendum, Appendix C
1,2-Dichloroethane	0.005	0.005		Type 3, VRP Appl Addendum, Appendix C
cis-1,2-Dichloroethene	0.07	0.2		Type 4, VRP Appl Addendum, Appendix C
Trichloroethene	0.005	0.0052		Type 4, VRP Appl Addendum, Appendix C
Vinyl Chloride	0.002	0.0033		Type 4, VRP Appl Addendum, Appendix C

mg/kg milligrams per kilogram
mg/L milligrams per liter

Revised by: LMS 7-26-12
Checked by: MKB 7-27-12

TABLE 2
ESTIMATED COST FOR VRP IMPLEMENTATION
FORMER AUTOMATIC SPRINKLER, SWAINSBORO, GEORGIA

Task #	Task Description	Quantity	Unit	Unit Cost	Total	Notes
1.0	**Annual Sampling, Reporting, Inspections, & Maintenance**					
	1.1 Semi-Annual Groundwater Sampling					
	Labor	2	event	$3,000	$6,000	Assumes 3 days/event, 2-man crew
	Laboratory Analytical	22	ea	$280	$6,160	VOCs, hydrogen, methane, ethane
	Rental Equipment	2	event	$800	$1,600	ethene
	Mobilization/Demobilization/Travel Expenses/Supplies	2	event	$1,200	$2,400	
	1.2 Semi-Annual Surface Water Sampling					
	Labor	2	event	$500	$1,000	Assumes 1 day/event, 2-man crew
	Laboratory Analytical	4	ea	$80	$320	VOCs
	Expenses/Supplies	2	ea	$100	$200	
	1.3 Reporting	2	ea	$8,500	$17,000	
	1.4 Other Costs (covenant, inspections, EPD comments/invoice	1	ea	$2,500	$2,500	
	SUBTOTAL - Annual Costs				**$37,180**	
2.0	**Supplemental Hi-Vacuum Remediation Events**	1	ea	$15,000	**$15,000**	
3.0	**Post-Implementation Compliance Status Report**	1	ea	$20,000	**$20,000**	

Year	Cost Description	Task 1	Task 2	Task 3	Yearly Cost
2014	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2015	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2016	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2017	Annual Costs + CSR			$20,000	$20,000
	TOTAL PROJECTED COST				**$176,540**

Prepared by: MHA 7/1/2014
Checked by: TRK 7/21/2014

The cost opinion is provided for budgetary purposes. Actual scope of work and costs may vary as additional information and formal cost estimates are obtained.

Table 3
Summary of Groundwater Elevations June 2008 Through June 2014

Well ID	TOC Elevation (FT MSL)	Depth to Water 6/4/2008 (FT BTOC)	Groundwater Elevation 6/4/2008 (FT MSL)	Depth to Water 4/14/2009 (FT BTOC)	Groundwater Elevation 4/14/2009 (FT MSL)	Depth to Water 9/17/2009 (FT BTOC)	Groundwater Elevation 9/17/2009 (FT MSL)	Depth to Water 11/30/2009 (FT BTOC)	Groundwater Elevation 11/30/2009 (FT MSL)	Depth to Water 5/17/2010 (FT BTOC)	Groundwater Elevation 5/17/2010 (FT MSL)	Depth to Water 11/18/2010 (FT BTOC)	Groundwater Elevation 11/18/2010 (FT MSL)	Depth to Water 5/30/2012 (FT BTOC)	Groundwater Elevation 5/30/2012 (FT MSL)	Depth to Water 12/13/2012 (FT BTOC)	Groundwater Elevation 12/13/2012 (FT MSL)	Depth to Water 6/5/2013 (FT BTOC)	Groundwater Elevation 6/5/2013 (FT MSL)	Depth to Water 12/3/2013 (FT BTOC)	Groundwater Elevation 12/3/2013 (FT MSL)	Depth to Water 6/2/2014 (FT BTOC)	Groundwater Elevation 6/2/2014 (FT MSL)
Shallow Aquifer																								
MW-1	292.71	NM	NM	6.49	286.22	10.68	282.03	9.62	283.09	9.21	283.50	11.56	281.15	NM	NM	12.63	280.08	9.74	282.97	10.58	282.13	8.82	283.89
MW-2	285.70	6.11	279.59	4.64	281.06	5.53	280.17	4.90	280.80	4.93	280.77	6.29	279.41	5.14	280.56	6.14	279.56	5.83	279.87	4.91	280.79	4.94	280.76
MW-3	281.17	3.30	277.87	1.86	279.31	2.70	278.47	2.35	278.82	2.31	278.86	3.58	277.59	2.31	278.86	3.03	278.14	2.98	278.19	2.70	278.47	2.51	278.66
MW-4	281.84	2.40	279.44	0.92	280.92	1.87	279.97	1.50	280.34	1.61	280.23	2.81	279.03	1.71	280.13	3.11	278.73	2.25	279.59	2.02	279.82	1.40	280.44
MW-5	286.71	6.57	280.14	4.00[1]	282.71	6.22	280.49	6.29	280.42	6.18	280.53	7.86	278.85	*6.65	280.06	8.42	278.29	6.49	280.22	7.51	279.20	5.78	280.93
MW-6	281.00	4.51	276.49	2.52	278.48	4.34	276.66	3.85	277.15	3.68	277.32	5.04	275.96	4.40	276.60	5.32	275.68	4.16	276.84	4.72	276.28	3.59	277.41
MW-7	281.33	4.19	277.14	2.56	278.77	3.48	277.85	2.99	278.34	2.83	278.50	4.21	277.12	2.71	278.62	3.33	278.00	3.50	277.83	3.24	278.09	3.53	277.80
MW-8	281.28	3.69	277.59	1.82	279.46	3.24	278.04	2.73	278.55	2.64	278.64	3.96	277.32	2.13	279.15	3.20	278.08	3.36	277.92	3.05	278.23	3.06	278.22
MW-9R	278.31	3.70	274.61	1.74	276.57	3.41	274.90	3.00	275.31	2.25	276.06	4.40	273.91	2.51	275.80	3.16	275.15	3.00	275.31	3.48	274.83	2.70	275.61
MW-10	289.37	6.89	282.48	2.54	286.83	6.17	283.20	5.42	283.95	5.30	284.07	7.76	281.61	4.28	285.09	7.15	282.22	6.47	282.90	6.65	282.72	5.46	283.91
MW-11	281.77	4.50	277.27	3.11	278.66	4.06	277.71	3.58	278.19	3.39	278.38	4.75	277.02	3.27	278.50	3.93	277.84	4.10	277.67	3.79	277.98	3.95	277.82
MW-12	288.04	4.62	283.42	0.97	287.07	4.34	283.70	3.50	284.54	3.57	284.47	5.94	282.10	2.85	285.19	5.04	283.00	4.71	283.33	4.51	283.53	3.62	284.42
MW-15	280.22	6.87	273.35	6.04	274.18	6.63	273.59	6.36	273.86	6.30	273.92	7.12	273.10	6.47	273.75	7.05	273.17	6.59	273.63	6.72	273.50	6.31	273.91
MW-18	281.27	NI	NI	NI	NI	3.55	277.72	2.64	278.63	2.87	278.40	4.16	277.11	2.64	278.63	3.43	277.84	3.17	278.10	3.11	278.16	3.01	278.26
MW-19	281.80	NI	NI	NI	NI	4.13	277.67	3.23	278.57	3.00	278.80	2.81	278.99	*3.27	278.53	3.64	278.16	3.83	277.97	3.45	278.35	3.49	278.31
MW-20	282.99	NI	NI	NI	NI	5.15	277.84	4.77	278.22	4.53	278.46	5.78	277.21	4.45	278.54	5.24	277.75	5.18	277.81	5.08	277.91	5.04	277.95
MW-21	284.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	*4.96	279.16	5.44	278.68	5.46	278.66	4.96	279.16	4.86	279.26
Deep Aquifer																							
MW-1D	282.95	8.34	274.61	7.14	275.81	7.55	275.40	7.35	275.60	7.53	275.42	7.71	275.24	7.91	275.04	8.04	274.91	8.17	274.78	8.01	274.94	7.95	275.00
MW-2D	280.01	8.70	271.31	7.50	272.51	8.02	271.99	7.96	272.05	8.11	271.90	8.26	271.75	8.47	271.54	8.74	271.27	8.83	271.18	7.61	272.40	8.07	271.94
MW-16D	279.91	6.30	273.61	4.70	275.21	5.66	274.25	5.93	273.98	5.85	274.06	5.45	274.46	6.32	273.59	6.54	273.37	5.85	274.06	5.52	274.39	5.50	274.41
MW-20D	281.21	NI	NI	NI	NI	6.59	274.62	6.08	275.13	7.35	273.86	6.79	274.42	7.57	273.64	7.19	274.02	7.31	273.90	6.65	274.56	6.75	274.46

Notes:
BTOC: Below top of casing
FT MSL: Feet mean sea level
NM: not measured
NI = Not Installed
[1] Water level measurement collected on 4/15/2009
* Water level measurements collected on 5/31/2012

Prepared by: MHA 6/30/2014
Checked by: TRK 7/21/2014

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-3														
Date Sampled	TYPE 3/4 RRS mg/L	Jul-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	Dec-09 DUP-2	May-10	Nov-10
VOCs (mg/L)																
Chloroethane	---	0.015	<0.010	0.0096	0.0034	0.0038	0.0028	0.0013	0.0011	0.0018	<0.001	0.0014	0.0011	<0.001	0.002	0.0009 J
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.52	0.006	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0014	<0.001	0.00091 J	<0.001	0.00094 J	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride	0.0033	**0.140**	**0.052**	**0.022**	**0.024**	**0.027**	**0.027**	**0.014**	**0.020**	**0.021**	**0.0173**	**0.0168**	**0.0094**	**0.0093**	**0.0172**	**0.0104**
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
pH (std. Units)	---	NA	5.94	5.7	5.64	5.51	5.28	5.37	5.63	5.57	5.54	5.85	6.04	6.04	5.7	6.21
Specific Conductance (mS/cm)	---	NA	0.14	0.19	0.197	0.222	0.212	0.208	0.199	0.263	0.222	0.239	0.421	0.421	0.278	0.255
Temperature (deg. C)	---	NA	16.94	19.3	19.94	21.48	22.53	24.65	21.99	24.24	26.59	19.17	20.45	20.45	22.38	22.98
Dissolved Oxygen (mg/L)	---	NA	0.00	0.48	0.34	0.78	0.62	0.40	0.43	0.42	0.50	0.34	0.27	0.27	0.23	0.48
ORP (mV)	---	NA	-13.00	-17.6	-29.7	12.9	53.5	87.9	30.3	0.4	-35.3	-10.8	-60.1	-60.1	-7.2	-72.3
Turbidity (NTU)	---	NA	6.40	45	24.1	12.8	13.7	5	1.6	8.5	4.1	4	32.2	32.2	67.2	30.8
Iron II (mg/L)	---	NA	4.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	13.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	74.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.001	0.0012	0.00081	0.0014	0.0013	0.0012	0.00084	0.000890	0.001300	0.000450	0.000210	0.000660	0.0004 J	0.00039
Ethane	---	NA	<0.000005	0.000009	0.000014	0.000065	0.000130	0.000052	0.000033	0.000050	0.000180	0.000021	<0.00001	0.000140	0.000009 J	0.000018
Methane	---	NA	9.10	7.6	7.7	9.4	7.2	9.2	8.3	6.7	8.2	7.4	5.8	13.0	4.2 J	7.6
Hydrogen (nmol/L)	---	NA	<0.030	2.7	3.9	1.6	1.4	3.0	27.0	1.7	2.2	1.1	1.5	NA	2.0	1.2

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

STI Properties, Inc.
Swainsboro, GA

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

August 2014

Sample Location		MW-4																		
Date Sampled	TYPE 3/4 RRS mg/L	Jul-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																				
Chloroethane	---	0.029	0.022	0.040	0.0024	0.021	0.0045	0.003	0.0029	0.0034	0.0029	<0.001	0.0014	0.0016	0.0013	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.018	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.300**	**0.093**	**0.058**	**0.018**	**0.045**	**0.037**	**0.031**	**0.040**	**0.042**	**0.034**	**0.0047**	**0.022**	**0.0288**	**0.0241**	**0.028**	**0.024**	0.0031	**0.036**	**0.020**
SVOCs (mg/L)																				
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																				
pH (std. Units)	---	NA	6.37	6.24	6.12	6.16	6.13	6.18	6.18	6.12	5.54	6.73	6.65	5.89	5.97	6.18	6.16	6.3	6.19	5.72
Specific Conductance (mS/cm)	---	NA	0.21	0.33	0.183	0.376	0.452	0.437	0.391	0.474	0.422	0.237	0.402	0.401	0.349	0.447	0.416	0.156	0.463	0.478
Temperature (deg. C)	---	NA	17.91	18.22	21	20.3	24.86	25.03	20.35	23.66	25.95	18.54	21.78	24.8	23.35	25.46	18.26	23.47	21.94	26.81
Dissolved Oxygen (mg/L)	---	NA	0.00	0.24	0.12	0.76	0.57	0.32	0.39	1.19	0.53	1.23	0.28	0.27	0.80	0.30	0.96	1.52	3.78	0.73
ORP (mV)	---	NA	-32.00	-43.1	-110	-59.9	-49.5	-37.1	-214.8	-71.8	-36.2	-39.6	-82.9	-33.5	-325.1	-56.6	-18.4	-3.8	-63	-27.4
Turbidity (NTU)	---	NA	5.40	12.5	8	10.0	0.0	4.5	6.5	2.3	2.2	6.0	16.2	-3.2	14.2	3.0	9.1	8.3	0.0	0.66
Iron II (mg/L)	---	NA	7.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																				
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	9.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	4.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	120.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.0026	0.0027	0.001	0.0019	0.0016	0.0019	0.0016	0.0014	0.0012	0.00012	0.00054	0.00074 J	0.00076	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	<0.000005	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.000004J	<0.00001	0.000004 J	0.000008 J	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	8.10	8.3	5.6	5.0	7.4	9.5	7.9	9.7	11.0	0.68	5.9	7.9 J	4.5	NA	6.0	1.7	6.2	3.8
Hydrogen (nmol/L)	---	NA	0.16	2.6	2.7	1.2	7.7	3.8	2.0	2.7	4.8	3.0	25.0	2.6	2.7	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

STI Properties, Inc.
Swainsboro, GA

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

August 2014

Sample Location		MW-5																		
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																				
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	0.001	<0.001	0.0022	0.0011	0.0020	0.0011	0.0013	0.0012	0.0011	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.008	0.015	0.015	0.013	0.011	0.011	0.0081	0.0098	0.0087	0.0074	0.0068	0.0071	0.0051	0.0045	0.0064	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.007	0.015	0.011	0.0096	0.0077	0.0075	0.0069	0.0065	0.0054	0.0053	0.0045	0.0046	0.0032	0.0028	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0016	<0.001	0.0012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	0.00035 J	0.00033J	0.00026 J	<0.001	0.0003J	0.00088 J	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																				
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																				
pH (std. Units)	---	NA	4.84	4.95	4.99	4.67	4.75	5.08	4.90	4.80	4.95	5.00	4.93	4.72	4.88	4.57	4.95	4.56	5.01	4.72
Specific Conductance (mS/cm)	---	NA	0.03	0.03	0.033	0.036	0.033	0.035	0.037	0.08	0.036	0.03	0.071	0.044	0.036	0.042	0.15	0.079	0.037	0.037
Temperature (deg. C)	---	NA	18.50	18.83	21.65	22.97	20.25	21.96	20.87	20.22	21.54	18.4	21.61	19.17	22.69	21.23	19.86	19.98	21.28	21.2
Dissolved Oxygen (mg/L)	---	NA	0.00	0.51	0.32	0.19	0.38	0.28	0.28	0.29	0.52	0.23	0.51	0.17	0.33	0.96	2.83	0.59	3.99	0.57
ORP (mV)	---	NA	210.00	234.10	133.2	130.9	200.8	135.1	171.5	175.1	-77.9	180	195.6	207.6	213.5	205.2	180.4	81.7	233.4	161.5
Turbidity (NTU)	---	NA	0.00	39.50	1.4	0.0	0	3.5	4.1	5.2	1.8	0.0	0.0	4.0	3.0	5.7	7.9	1.8	8.6	1.21
Iron II (mg/L)	---	NA	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																				
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	3.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.000016	0.000009	0.000011	0.000011	0.000009	0.000008 J	0.000006 J	0.000007J	0.000012	0.000006J	0.000065	0.000011 J	0.000007 J	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	0.0000024 J	########	0.000004	0.000002 J	0.000002 J	0.000005J	0.000006 J	0.000004J	0.000008J	0.000015 J	0.000002 J	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	0.52	0.63	0.56	0.83	0.57	0.51	0.4	0.28	0.24	0.2	0.27	0.21 J	0.048	NA	0.059	0.053	0.078	0.054
Hydrogen (nmol/L)	---	NA	<0.030	1.2	1.7	1.6	2.3	7.2	11	4	15	7.7	11.0	8.8	3.9	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-6															
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Sep-09	Dec-09	May-10	Nov-10	Nov-10
VOCs (mg/L)																	
Chloroethane	---	0.002	<0.010	0.014	0.0032	<0.001	0.0072	0.002	0.0016	0.0017	0.0013	<0.001	0.0017	0.001	<0.001	0.0012	0.0012
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethylene	0.0052	ND	<0.005	0.0036	<0.001	**0.0079**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.52	ND	<0.005	0.0022	<0.001	0.0048	0.0017	<0.001	<0.001	0.0010	<0.001	0.00060J	<0.001	<0.001	0.0014	<0.001	<0.001
1,1-Dichloroethane	---	ND	<0.005	0.0011	0.0018	0.0021	0.0036	0.0014	0.0020	0.0028	0.0023	0.0016	0.0015	0.0013	0.002	0.0015	0.0015
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis -1,2-Dichloroethene	0.2	ND	<0.005	0.0018	<0.001	0.0045	0.0029	0.00090 J	0.0012	0.0014	0.0014	0.0010	0.0015	0.0012	0.0014	0.0016	0.0019
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride	0.0033	**0.010**	<0.010	**0.010**	**0.0096**	**0.0092**	**0.0094**	**0.0055**	**0.0051**	**0.0065**	**0.0052**	**0.0035**	**0.0054**	**0.0035**	0.0028	**0.0043**	**0.0044**
SVOCs (mg/L)																	
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0211	NA	NA	NA	NA	NA
Field Parameters																	
pH (std. Units)	---	NA	6.14	5.84	5.81	5.81	5.84	5.54	5.82	5.85	4.91	5.98	5.84	5.84	5.56	5.56	5.56
Specific Conductance (mS/cm)	---	NA	0.12	0.18	0.167	0.182	0.15	0.152	0.160	0.191	0.152	0.231	0.192	0.211	0.156	0.169	0.169
Temperature (deg. C)	---	NA	17.27	20.83	24.92	23.92	24.64	27.16	22.16	23.75	27.25	20.24	31.27	21.83	24.00	25.56	25.56
Dissolved Oxygen (mg/L)	---	NA	0.00	0.26	0.07	0.35	0.64	0.4	0.24	0.42	0.41	1.73	0.28	0.39	0.82	0.52	0.52
ORP (mV)	---	NA	-92.00	-11.6	-78.8	-22.0	-6.0	30.3	-216.5	-39.4	292.7	4.9	-12.7	-7.7	-1.6	-387.7	-387.7
Turbidity (NTU)	---	NA	0.00	7.3	2.4	5.6	4.9	3.5	4.5	2.2	0.7	3.5	6.1	8.0	11.5	11.5	11.5
Iron II (mg/L)	---	NA	4.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																	
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	3.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	65.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00014	0.00043	0.00016	0.00029	0.00013	0.0002	0.000066	0.000068	0.00011	0.000038	0.000092	0.000042	0.000053 J	0.000084	0.000084
Ethane	---	NA	<0.000005	<0.000005	<0.000005	0.000011	<0.00001	<0.000010	<0.00001	0.000006J	0.000009J	0.000006J	0.000003J	0.000002J	0.000006 J	0.000003 J	0.000003
Methane	---	NA	6.10	5.9	3.8	5.4	3.7	4.6	5.1	2.9	3.2	3.8	1.8	1.2	2.8 J	3.4	3.4
Hydrogen (nmol/L)	---	NA	1.20	2.2	2.4	4.1	3.3	3.8	1.7	3.2	2.8	0.71	330	18	5.2	2.6	2.6

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-6 continued					MW-7				
Date Sampled	TYPE 3/4 RRS mg/L	May-12	Dec-12	Jun-13	Dec-13	Jun-14	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)											
Chloroethane	---	<0.01	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	---	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.0036**	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)											
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters											
pH (std. Units)	---	5.78	5.85	5.70	5.90	4.93	5.06	5.18	5.05	5.28	4.67
Specific Conductance (mS/cm)	---	0.169	0.188	0.195	0.157	0.146	0.057	0.082	0.170	0.196	0.157
Temperature (deg. C)	---	28.05	21.69	25.53	23.19	27.11	20.63	16.08	18.95	17.20	20.83
Dissolved Oxygen (mg/L)	---	0.21	0.93	0.48	0.21	0.28	0.24	0.68	0.58	0.23	0.32
ORP (mV)	---	-6.6	-8.7	-83.6	-33.2	-23.8	131.9	224.2	-37.0	52.4	4.90
Turbidity (NTU)	---	4.6	7.3	2.1	9.2	8.47	60.8	161.4	7.3	455.9	7.63
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)											
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	<0.007	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	<0.009	<0.009	<0.009	<0.009	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	3.4	2.2	3.5	1.8	NA	0.17	0.94	0.95	1.3
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Bold Concentrations exceed Risk Reduction Standards

NA- Data not available or not analyzed

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-8														
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Jul-00	Dec-00	Apr-01	Dec-03	Dec-03 Dup	May-04	May-04 Dup	Nov-04	May-05	May-05 Dup	Jun-06	Jun-06 Dup	Dec-06	Dec-06 Dup
VOCs (mg/L)																
Chloroethane	---	0.041	<1	<0.1	0.046	0.38	0.37	<0.05	<0.05	0.04	<0.1	0.03	<0.050	0.025 J	<0.020	0.02
1,1,2,2-Tetrachloroethane	0.005	0.001	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	<0.001	<0.050	<0.025	<0.02	<0.02
1,1,1-Trichloroethane	13	**53**	6.2	0.67	2.5	1.3	1.3	0.75	0.95	2.0	1.9	1.9	2.2	1.7	0.55	0.65
1,1,2-Trichloroethane	0.005	**0.052**	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	0.0019	<0.050	<0.025	<0.020	<0.020
Trichloroethylene	0.0052	**140**	**14**	**1**	**4**	**2.4**	2.4	**1.6**	**1.8**	**3.3**	**4.6**	**4.7**	**5.3**	**4.4**	**0.71**	**0.8**
1,1-Dichloroethene	0.52	**45**	**8.7**	**0.9**	**2.3**	**2.4**	**2.2**	**1.2**	**1.3**	**3.6**	**3.3**	**3.5**	**4.9**	**3.2**	**2.1**	**2.3**
1,1-Dichloroethane	---	0.94	<0.5	0.13	0.17	0.28	0.27	0.17	0.2	0.19	0.23	0.24	0.28	0.23	0.18	0.19
1,2-Dichloroethane	0.005	**0.03**	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.050	<0.025	<0.1	<0.001	<0.050	<0.025	<0.020	<0.020
cis -1,2-Dichloroethene	0.2	**4.5**	**4.5**	**1.1**	**1.4**	**2.3**	**2.1**	**2.1**	**2.3**	**3.6**	**2.7**	**3**	**4.2**	**3.4**	**3.4**	**3.7**
trans -1,2-Dichloroethene	---	ND	<0.5	<0.05	NA	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	0.01	<0.050	<0.025	<0.020	<0.020
Vinyl Chloride	0.0033	**0.93**	**1.6**	**0.99**	**0.37**	**1.8**	**1.8**	**0.73**	**0.85**	**0.73**	**1.1**	**1.2**	**1.4**	**0.89**	**0.81**	**0.78**
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA		NA		NA	NA		NA		NA	
Field Parameters																
pH (std. Units)	---	NA	NA	6.04	5.23	6.09	NA	5.81	NA	6.14	5.88	5.88	5.75	5.75	5.86	5.86
Specific Conductance (mS/cm)	---	NA	NA	0.17	0.14	0.48	NA	0.33	NA	0.524	0.384	0.384	0.419	0.419	0.403	0.403
Temperature (deg. C)	---	NA	NA	17.02	NA	18.53	NA	20.95	NA	20.71	19.16	19.16	21.15	21.15	19.27	19.27
Dissolved Oxygen (mg/L)	---	NA	NA	0.00	NA	0.24	NA	0.33	NA	0.65	0.93	0.93	0.46	0.46	0.33	0.33
ORP (mV)	---	NA	NA	-49.00	NA	-47.4	NA	-70	NA	-82.2	-19.1	-19.1	-12.1	-12.1	-45.2	-45.2
Turbidity (NTU)	---	NA	NA	10.50	NA	6.7	NA	0.5	NA	5.6	4.9	4.9	3.9	3.9	1.7	1.7
Iron II (mg/L)	---	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	13.00	NA	NA	NA	NA	NA	NA	9.6	NA	NA	NA	NA	NA
Chloride	---	NA	NA	21.00	NA	NA	NA	NA	NA	NA	37	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	<0.10	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	1.90	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	59.00	NA	NA	NA	NA	NA	NA	76	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	0.16	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	NA	NA	NA	NA	NA
Ethene	---	NA	NA	0.23	NA	0.32	NS	0.11	0.12	0.053	0.054	NA	0.13	0.13	0.051	0.064
Ethane	---	NA	NA	0.00	NA	0.00022	NS	0.00072	0.0013	0.0014	0.0012	NA	0.0038	0.0037	0.0018	0.003
Methane	---	NA	NA	7.70	NA	7.3	NS	7.7	11	4.1	8	NA	12	12	4.3	7.1
Hydrogen (nmol/L)	---	NA	NA	<0.03	NA	2	NS	1.6	NA	2.0	1.2	NA	0.87	NA	18	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

STI Properties, Inc.
Swainsboro, GA

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

August 2014

Sample Location		MW-8 continued																			
Date Sampled	TYPE 3/4 RRS mg/L	May-07	May-07 DUP	Jun-08	Jun-08 Dup	Oct-08	Oct-08 Dup	Apr-09	Apr-09 DUP	Sep-09	Sep-09 DUP	Dec-09	May-10	DUP-1	Nov-10	Nov-10 DUP-1	May-12	Dec-12	Dec-12 DUP-1	Jun-13	Jun-13 DUP-1
VOCs (mg/L)																					
Chloroethane	---	<0.020	<0.020	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	0.0595	0.0556	<0.01	0.0134	<0.025	0.0905	0.0632	<0.01	0.025	0.026	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.02	<0.02	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	<0.04	<0.025	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	0.74	0.87	5.55	5.27	0.217	0.194	0.32	0.32	1.1	0.802	0.296	1.1	0.96	1.65	1.36	0.740	2.5	2.6	0.470	0.520
1,1,2-Trichloroethane	0.005	<0.02	<0.02	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	**1.3**	**1.6**	**11.9**	**11.1**	**0.532**	**0.529**	**0.577**	**0.594**	**1.54**	**1.05**	**0.396**	**1.87**	**1.68**	**3.56**	**2.99**	**1.5**	**4.6**	**4.8**	**0.73**	**0.82**
1,1-Dichloroethene	0.52	**1.7**	**1.9**	**8.34**	**7.86**	**0.567**	**0.541**	**0.611**	**0.587**	**3.17**	**2.26**	**1.17**	**1.99**	**1.75**	**4.19**	**3.21**	**2.2**	**6.2**	**6.5**	**1.9**	**1.9**
1,1-Dichloroethane	---	0.15	0.18	0.43	0.428	0.0797	0.0834	0.0442	0.0472	0.397	0.38	0.0789	0.128	0.127	0.252	0.247	0.170	0.250	0.250	0.110	0.110
1,2-Dichloroethane	0.005	<0.020	<0.020	<0.100	<0.05	<0.025	<0.025	<0.005	<0.005	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	**1.9**	**2.2**	**5.86**	**5.66**	**0.875**	**0.815**	**0.808**	**0.783**	**4.19**	**3.36**	**1.82**	**2.02**	**1.87**	**4.1**	**3.54**	**2.7**	**7.0**	**7.1**	**2.1**	**2.0**
trans-1,2-Dichloroethene	---	<0.020	<0.020	<0.100	<0.05	<0.025	<0.025	0.0051	0.0064	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	**8.6**	**9.1**	<0.005	<0.005
Vinyl Chloride	0.0033	**0.69**	**0.67**	**1.32**	**1.22**	**0.421**	**0.372**	**0.219**	**0.23**	**2.4**	**2.09**	**0.589**	**0.902**	**0.802**	**1.89**	**1.56**	**0.47**	**2.1**	**2.2**	**0.86**	**0.82**
SVOCs (mg/L)																					
1,4-Dioxane (p-Dioxane)	---	NA		NA		NA		<0.0200	<0.0200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																					
pH (std. Units)	---	5.76	5.76	5.72	5.72	NA	NA	6.41	NA	5.87	5.87	6.40	5.94	5.94	5.67	5.67	6.02	6.05	6.05	5.41	5.41
Specific Conductance (mS/cm)	---	0.371	0.371	0.489	0.489	NA	NA	0.29	NA	0.482	0.482	0.442	0.400	0.40	0.404	0.404	0.499	0.669	0.669	0.288	0.288
Temperature (deg. C)	---	19.54	19.54	24.25	24.25	NA	NA	17.77	NA	24.82	24.82	19.80	20.16	20.16	21.70	21.70	23.12	17.50	17.50	20.19	20.19
Dissolved Oxygen (mg/L)	---	0.88	0.88	0.61	0.61	NA	NA	0.3	NA	0.08	0.08	0.31	0.22	0.22	0.48	0.48	0.85	2.22	2.22	0.53	0.53
ORP (mV)	---	-8.5	-8.5	-131.4	-131.4	NA	NA	7.4	NA	-14.6	-14.6	-100.7	8.0	8.0	-428.8	-428.8	4.5	-52.6	-52.6	-32.8	-32.8
Turbidity (NTU)	---	4.5	4.5	4	4	NA	NA	0.1	NA	5.3	5.3	4.6	20.1	20.1	0	0	10.1	7.4	7.4	2.7	2.7
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																					
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.046	0.063	0.062	0.057	NA	NA	0.0021	0.0045	0.074	0.08	0.016	0.023 J	0.048	0.078	0.078	NA	0.067	0.067	0.01	0.014
Ethane	---	0.0021	0.0042	0.0025	0.0024	NA	NA	0.00013	0.00032	0.0018	0.0019	0.00093	0.00077 J	0.003	0.00072	0.00072	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	7.7	9.6	8.2	11	NA	NA	0.42	1.2	4.1	4.4	2.4	3.0 J	12.0	1.7	1.7	NA	6.4	6.4	7.9	8
Hydrogen (nmol/L)	---	1.2	NA	7.3	NA	NA	NA	2.8	0.0019	56	61	1.5	2.1	NA	0.92	0.92	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-8 continued				MW-9/9R													
Date Sampled	TYPE 3/4 RRS mg/L	Dec-13	Dec-13 Dup-1	Jun-14	Jun-14 Dup-1	Oct-98	Dec-00	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Sep-09	Dec-09	May-10	Nov-10
VOCs (mg/L)																			
Chloroethane	---	0.067	0.078	0.016	0.016	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	13	0.74	0.79	0.49	0.55	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethylene	0.0052	**1.5**	**1.6**	**1.5**	**1.7**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.52	**2.1**	**2.2**	**1.1**	**1.2**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	---	0.28	0.28	0.12	0.12	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis -1,2-Dichloroethene	0.2	**2.2**	**2.2**	**1.5**	**1.5**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans -1,2-Dichloroethene	---	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride	0.0033	**2.6**	**2.6**	**0.90**	**0.99**	0.003	<0.010	<0.001	0.0021	0.0013	0.00067 J	0.00056 J	0.00066J	0.0014	<0.001	<0.001	0.00068J	<0.001	<0.001
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0208	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	6.01	NA	5.76	NA	NA	6.51	6.33	6.34	6.26	6.26	6.39	6.29	6.21	6.52	6.56	6.52	6.44	6.04
Specific Conductance (mS/cm)	---	0.311	NA	0.320	NA	NA	0.24	0.328	0.459	0.484	0.413	0.384	0.396	0.415	0.306	0.294	0.351	0.186	0.227
Temperature (deg. C)	---	19.98	NA	21.93	NA	NA	15.77	24.44	20.82	23.91	25.2	18.71	21.52	23.54	18.35	27.1	19.88	23.55	22.06
Dissolved Oxygen (mg/L)	---	3.89	NA	0.87	NA	NA	0	3.85	0.22	4.07	0.41	0.37	0.34	0.41	2.85	0.21	1.12	4.8	0.86
ORP (mV)	---	-21.7	NA	-65.4	NA	NA	-62	31	-53.9	-113.1	-12.5	-52.9	-86.2	-128.6	34.6	28.6	-31.4	110	202.1
Turbidity (NTU)	---	5.3	NA	3.84	NA	NA	0.7	0	3.8	1.1	0	3.8	0.3	0	10.6	0.3	2	9.7	4.6
Iron II (mg/L)	---	NA	NA	NA	NA	NA	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.049	NA	0.024	0.023	NA	0	0.000053	0.00033	0.00018	0.00023	0.00017	0.000078	0.00014	0.000009J	0.000002J	0.000042	0.000025 J	0.000041
Ethane	---	<0.0090	NA	<0.009	<0.009	NA	<0.000005	0.0000054	0.000032	0.00001	0.000008 J	0.000006 J	0.000008J	0.000019	<0.00001	0.000027	0.000002J	<0.00001	0.000004 J
Methane	---	6.8	NA	4.8	4	NA	2	0.48	2.5	1	1.5	0.74	1.1	2	0.087	0.062	0.094	0.0081 J	0.21
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	0.38	4501	0.71	1.1	1.5	2.1	3.7	1.4	0.65	210	28	14	0.8

Notes:

Bold concentrations exceed Risk Reduction Standards

1) The 450 nmol/L of Hydrogen result is anomalously high. Laboratory re-checked their calculation and confirmed this result. However, because this data point is a potential outlier, it will not be considered a valid data point for MW-9R in May 2004.

NA-Data not available or not analyzed

ND- Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-9/9R continued					MW-10								
Date Sampled	TYPE 3/4 RRS mg/L	May-12	Dec-12	Jun-13	Dec-13	Jun-14	Oct-98	Dec-00	Dec-03	May-04	Dec-04	May-05	Jun-06	Jun-13	Jun-14
VOCs (mg/L)															
Chloroethane	---	<0.01	<0.01	<0.01	<0.01	<0.01	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	NA
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.002	<0.001	<0.001	<0.001	<0.005	NA
1,1,1-Trichloroethane	13	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.003	<0.001	<0.001	<0.001	<0.005	NA
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.004	<0.001	<0.001	<0.001	<0.005	NA
Trichloroethylene	0.0052	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	<0.001	<0.005	<0.001	0.001	0.00057 J	<0.005	NA
1,1-Dichloroethene	0.52	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.005	0.0017	0.0014	<0.001	<0.001	0.00099 J	<0.005	NA
1,1-Dichloroethane	---	<0.005	<0.005	<0.005	<0.005	<0.005	0.003	<0.005	0.0023	0.0024	0.0012	0.0015	0.0015	<0.005	NA
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
cis-1,2-Dichloroethene	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
trans-1,2-Dichloroethene	---	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
Vinyl Chloride	0.0033	<0.002	<0.002	<0.002	<0.002	<0.002	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	NA
SVOCs (mg/L)															
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
pH (std. Units)	---	6.33	6.37	6.37	6.33	6.05	NA	4.98	5.37	5.22	5.20	4.74	4.44	5.07	3.38
Specific Conductance (mS/cm)	---	0.323	0.216	0.337	0.402	0.316	NA	0.04	0.05	0.038	0.048	0.039	0.038	0.051	0.053
Temperature (deg. C)	---	24.91	18.99	21.54	20.49	26.07	NA	14.36	16.48	19.22	18.05	19.63	19.02	17.11	19.78
Dissolved Oxygen (mg/L)	---	0.82	3.31	1.49	0.24	0.37	NA	0.00	0.38	0.33	0.21	0.48	0.58	0.55	0.49
ORP (mV)	---	30.5	46.0	-27.4	-25.0	-27.8	NA	-35.00	2.8	61.2	5.9	103.0	36.2	119.7	38.5
Turbidity (NTU)	---	4.12	8.3	9.6	9.2	8.07	NA	0.20	0.7	3.5	2.0	0.0	2.3	101.6	7.77
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	2.80	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)															
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	2.40	NA	NA	NA	1.2	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	2.80	NA	NA	NA	2.5	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	<0.10	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	4.10	NA	NA	NA	<1.0	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	11.00	NA	NA	NA	7.5	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.10	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	NA	NA	NA
Ethene	---	NA	<0.007	<0.007	<0.007	<0.007	NA	<0.000005	<0.000005	0.000004 J	<0.000005	<0.00001	<0.00001	NA	NA
Ethane	---	NA	<0.009	<0.009	<0.009	<0.009	NA	<0.000005	<0.000005	0.0000021 J	0.000018	0.000005	0.000002 J	NA	NA
Methane	---	NA	0.084	0.24	1.8	0.20	NA	0.08	0.3	0.16	0.18	0.15	0.22	NA	NA
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	0.28	1.1	1.8	0.63	1.2	24	NA	NA

Notes:

Bold concentrations exceed Risk Redution Standards

NA- Data not available or not analyzed

ND- Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-11																		
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Dec-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																				
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.01	<0.01	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.001	0.0016	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00083 J	0.0026	<0.001	0.0028	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	0.00036 J	<0.001	<0.001	<0.001	0.00095J	0.00031J	0.0025	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																				
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0200	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																				
pH (std. Units)	---	NA	5.18	5.54	5.51	5.41	5.44	4.28	5.16	5.2	4.2	5.62	5.51	5.17	5.21	5.09	4.93	4.85	5.52	5.33
Specific Conductance (mS/cm)	---	NA	0.43	0.06	0.06	0.06	0.058	0.111	0.044	0.047	0.1	0.038	0.038	0.06	0.059	0.047	0.185	0.101	0.056	0.061
Temperature (deg. C)	---	NA	8.47	10.95	21.2	14.54	18.48	20.2	11.85	18.55	20.49	15.61	14.14	20.18	17.22	22.36	14.32	20.97	14.82	21.37
Dissolved Oxygen (mg/L)	---	NA	0.00	0.27	0.36	0.19	0.45	0.39	0.29	0.33	0.53	0.19	0.20	0.13	0.40	1.10	3.15	0.94	4.75	0.65
ORP (mV)	---	NA	137.00	141.7	90.1	85.9	72.1	290.6	-221.7	200.6	462.2	92.5	143.3	115.2	156.0	190.1	264.6	58.7	155.9	136.1
Turbidity (NTU)	---	NA	4.50	10.3	10.8	2.5	5.8	8.6	5.5	5.4	1.5	3.7	29.5	9.1	8.8	9.04	9.8	3.1	3.9	6.51
Iron II (mg/L)	---	NA	2.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																				
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	6.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	9.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00040	0.000092	0.000025	0.00019	0.00012	0.00017	0.000008 J	0.000032	0.000015	0.00021	0.000042	0.00075 J	0.000042	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	0.0000018 J	<0.00001	0.000003 J	<0.00001	<0.00001	0.000002 J	0.000003J	<0.00001	0.000008 J	0.000004 J	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	0.07	0.16	0.15	0.30	0.38	0.14	0.084	0.450	0.100	0.34	0.037	0.430 J	0.0064	NA	0.004	0.052	0.11	0.74
Hydrogen (nmol/L)	---	NA	<0.030	0.94	1.3	1.4	1.1	4.4	1.4	1.2	1.3	19	6.9	1.7	1.1	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-12														
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	May-04	Dec-04	May-05	Jun-06	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
pH (std. Units)	---	NA	4.97	4.98	5.07	4.94	4.97	5.15	5.47	5.09	5.05	4.79	5.45	4.73	5.23	2.93
Specific Conductance (mS/cm)	---	NA	0.02	0.027	0.03	0.028	0.026	0.033	0.029	0.032	0.026	0.031	0.029	0.57	0.026	0.041
Temperature (deg. C)	---	NA	15.32	19.62	18.38	19.31	21.4	17.26	17.66	18.48	19.9	20.94	15.27	19.33	19.19	20.11
Dissolved Oxygen (mg/L)	---	NA	2.80	2.46	4.20	2.23	3.06	3.05	3.47	1.41	5.40	1.39	6.89	1.91	1.42	0.90
ORP (mV)	---	NA	280.00	160	269.0	275.5	325.6	144.1	246.9	283.9	-175.3	307.4	215.3	237.0	75.9	53.4
Turbidity (NTU)	---	NA	1.20	2.5	10.2	10	11.7	7.7	7.5	14.3	82.9	41.9	80.8	8.6	8.4	4.52
Iron II (mg/L)	---	NA	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00003	0.0000085	########	<0.00001	<0.00001	NA	NA	NA	NA	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	<0.00001	<0.00001	NA	NA	NA	NA	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	0.01	0.0034	0.0059	0.0022	0.000086	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004	<0.004
Hydrogen (nmol/L)	---	NA	<0.030	NA	0.58	1.5	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-15														
Date Sampled	TYPE 3/4 RRS mg/L	Jun-99	Dec-00	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																
Chloroethane	---	NA	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	NA	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	NA	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	ND	<0.0050	<0.001	<0.001	0.0011	0.0011	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	---	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.01	0.0012	0.0022	0.0014	0.0012	0.00045J	<0.001	0.0015	0.0015	<0.002	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	<0.0211	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
pH (std. Units)	---	NA	6.47	5.92	6.06	6.06	5.25	5.96	5.80	6.07	5.81	5.45	5.97	6.07	5.96	5.84
Specific Conductance (mS/cm)	---	NA	0.23	0.251	0.243	0.375	0.193	0.109	0.072	0.243	0.197	0.047	0.198	0.219	0.11	0.136
Temperature (deg. C)	---	NA	17.29	26.5	20.68	22.36	24.42	19.2	17.94	21.82	23.77	25.66	19.8	21.32	21.78	24.38
Dissolved Oxygen (mg/L)	---	NA	0.00	0.35	0.28	0.4	0.35	1.22	0.74	0.19	0.42	0.44	0.70	0.39	0.42	0.38
ORP (mV)	---	NA	-62.0	4.8	-262.9	-48.7	33.6	45.8	28.3	-33.9	-319.2	61.9	-20.8	-41.5	20.7	-41.7
Turbidity (NTU)	---	NA	1.0	0	0.9	0	0.2	9.7	2.7	4.8	1.8	2.68	8.0	4.3	7.1	3.77
Iron II (mg/L)	---	NA	4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	9.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.0002	0.000088	0.000033	0.00009	0.000049	0.000004J	0.000004J	0.000053 J	0.000024	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	0.00011	0.00002	0.000046	0.000095	0.000028	0.000014	<0.00001	0.000055 J	0.000006 J	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	9.4	8.8	8.5	8.6	6.2	2.4	0.54	7.7 J	1.9	NA	7.5	6.9	5.3	3.5
Hydrogen (nmol/L)	---	NA	2	2.5	3	3.1	69	0.62	11.0	2.2	1.8	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-16D						MW-18								
Date Sampled	TYPE 3/4 RRS mg/L	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	Sep-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																
Chloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	0.0012	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0025	0.0022	0.0019	0.0019	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00085J	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0021	0.0019	0.0013	0.0020	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0051**	**0.0038**	**0.0035**	**0.0038**	**0.0033**	0.0028	0.0032	**0.0038**	0.0029
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
pH (std. Units)	---	11.1	9.79	12.09	11.51	11.48	12.67	5.32	5.76	5.70	5.63	5.72	5.91	5.58	5.72	5.61
Specific Conductance (mS/cm)	---	0.444	0.294	4.56	0.705	1.58	1.581	0.173	0.221	0.361	0.276	0.355	0.354	0.291	0.241	0.239
Temperature (deg. C)	---	20.73	21.83	19.82	18.18	20.54	16.99	28.05	20.6	23.25	23.11	24.61	20.48	23.55	21.47	24.74
Dissolved Oxygen (mg/L)	---	0.71	0.75	4.64	5.95	5.89	5.47	0.28	0.29	0.45	0.63	1.2	0.78	0.5	0.12	0.72
ORP (mV)	---	138.9	272.3	-55.9	-59.2	120.4	6.5	138.9	-30.8	12.5	-313.2	6.9	0.4	-39.1	8.6	-36.6
Turbidity (NTU)	---	12	5.8	6.2	18.9	2.6	12.6	9.7	10.1	21.4	6.9	7.49	7.1	4.4	8.2	2.23
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	NA	NA	NA	NA	NA	0.00066	0.00045	0.00065 J	0.00028	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	NA	NA	NA	NA	NA	0.00033	0.0015	0.00099 J	0.00063	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	NA	NA	NA	NA	NA	3.7	3.8	2.5 J	3.8	NA	6.8	7.2	6.9	4.1
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	27	5.8	0.98	7.2	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

STI Properties, Inc.
Swainsboro, GA

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

August 2014

Sample Location		MW-19										MW-20									
Date Sampled	TYPE 3/4 RRS mg/L	Sep-09	Dec-09	May-10	DUP-2	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14	Sep-09	Dec-09	Dec-09 DUP-1	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)																					
Chloroethane	---	0.659	0.314	0.735	0.727	0.344	0.31	0.28	1.3	0.340	0.270	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	<0.005	<0.005	0.0501	0.0486	<0.005	<0.005	<0.005	0.033	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.020	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	<0.005	<0.005	**0.0172 J**	**0.0171 J**	**0.0961**	**0.550**	**0.20**	**0.14**	**0.280**	**0.450**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.0118	0.0044 J	0.123	0.123	0.0682	0.500	0.12	0.45	0.200	0.270	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.0381	0.0129	0.264	0.258	0.0212	0.050	0.018	0.21	0.012	0.044	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.0019J	<0.005	<0.020	<0.020	.0011 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	0.0243	0.007	0.196	0.186	0.0543	**0.4**	0.11	**0.65**	0.087	**0.220**	0.0016	0.0032	0.0031	0.0027	0.0020	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.005	<0.005	<0.020	<0.020	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.502**	**0.113**	**2.02**	**2.01**	**0.198**	**0.83**	**0.33**	**2.9**	**0.300**	**0.420**	**0.0102**	**0.0115**	**0.0116**	**0.0083**	**0.0067**	**0.0068**	**0.0051**	<0.002	**0.0046**	**0.0048**
SVOCs (mg/L)																					
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																					
pH (std. Units)	---	5.85	6.19	5.66	5.66	6.27	5.55	5.87	5.85	6.3	5.73	5.67	5.87	5.87	4.93	5.62	5.66	5.95	5.62	5.76	5.77
Specific Conductance (mS/cm)	---	0.408	0.413	0.477	0.477	0.374	0.315	0.364	0.434	0.397	0.338	0.306	0.311	0.311	0.326	0.313	0.294	0.459	0.369	0.274	0.328
Temperature (deg. C)	---	23.76	17.84	18.52	18.52	18.54	20.36	16.78	17.61	18.42	20.72	24.03	18.94	18.94	19.8	20.8	22.50	18.65	20.28	20.38	24.10
Dissolved Oxygen (mg/L)	---	0.26	0.26	0.27	0.27	0.44	1.3	0.70	0.37	4.06	0.35	0.37	0.35	0.35	0.29	0.48	0.83	2.15	0.53	0.09	1.38
ORP (mV)	---	-36.6	-49.2	-14.0	-14.0	-12.1	36.4	-22.8	-28.4	-38.8	16.6	7.5	-23.3	-23.3	44.1	64.9	6.1	-58.9	-42.5	-23.4	17.3
Turbidity (NTU)	---	6.3	9.7	10.0	10.0	23.0	33.0	9.3	33.6	8.6	3.2	9.5	14.1	14.1	3.9	9.8	3.85	12.6	2.9	16.7	1.27
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																					
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.78	0.37	0.99 J	1.4	0.77	NA	0.47	0.37	0.38	0.26	0.0022	0.0019	0.0054	0.00081 J	0.00048	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	0.022	0.014	0.049 J	0.1	0.029	NA	0.081	0.063	0.041	0.037	0.00082	0.0005	0.0021	0.00019 J	0.00014	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	3.7	1.4	6.9 J	15	5.8	NA	7.0	5.3	5.4	4.8	7.3	4.4	13	7.2 J	5	NA	5.8	8.9	6.1	5.4
Hydrogen (nmol/L)	---	11	26	0.97	NA	1.5	NA	NA	NA	NA	NA	5.4	1.1	NA	0.93	1.5	NA	NA	NA	NA	NA

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2014)

Sample Location		MW-20D									MW-21				
Date Sampled	TYPE 3/4 RRS mg/L	Sep-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Jun-14	May-12	Dec-12	Jun-13	Dec-13	Jun-14
VOCs (mg/L)															
Chloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	0.0053	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	**0.012**	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.0191	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.00099 J	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	0.0152	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.0071**	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0075**	**0.005**	**0.0071**	**0.0082**	**0.006**
SVOCs (mg/L)															
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
pH (std. Units)	---	6.14	5.80	4.95	4.36	4.38	4.84	4.43	5.12	4.55	5.93	6.05	5.95	6.42	5.04
Specific Conductance (mS/cm)	---	0.145	0.084	0.053	0.043	0.050	0.153	0.093	0.051	0.048	0.398	0.472	0.476	0.462	0.424
Temperature (deg. C)	---	23.21	19.25	21.2	20.83	22.27	19.69	20.98	21.04	23.57	20.98	17.32	18.03	17.64	21.62
Dissolved Oxygen (mg/L)	---	1.79	2.08	2.09	0.41	1.01	2.11	0.76	5.27	1.9	1.79	0.71	2.46	4.18	0.32
ORP (mV)	---	40.2	181.5	262.6	-305.3	266.7	241.8	143.9	4.04	229.3	-20.6	-34.5	-50.2	-27	-6.7
Turbidity (NTU)	---	364.3	73.8	5.6	200.1	9.40	19.7	9.7	9.0	9.51	25.8	7.7	2.2	9	6.37
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)															
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	NA	NA	NA	NA	<0.007	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.007	<0.007
Ethane	---	NA	NA	NA	NA	NA	<0.009	<0.009	<0.009	<0.009	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004	<0.004	NA	7.1	7.5	8.4	3.4
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Prepared by: MHA 7/1/2014
Checked by: TRK 7/21/2014

Notes:

Bold concentrations exceed Risk Reduction Standards

NA - Data not available or not analyzed

ND - Non Detect

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 5
Summary of Surface Water Analytical Results

Sample Location	SW-1	SW-2							SW-3	SW-4					
Date Sampled	4/13/2009	4/13/2009	5/17/2010	5/30/2012	12/13/2012	6/6/2013	12/5/2013	6/5/2014	4/13/2009	5/17/2010	5/30/2012	12/13/2012	6/6/2013	12/5/2013	6/5/2014
VOCs (mg/L)															
Chloroethane	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	<0.001	<0.001	0.0006[J]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.00096[J]	<0.001	0.00098[J]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.00044[J]	0.00048[J]	0.00042[J]	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the method detection limit. Concentration reported is estimated

NA = not analyzed

Table 5
Summary of Surface Water Analytical Results

Sample Location	SW-5					SW-6				
Date Sampled	5/30/2012	12/13/2012	6/6/2013	12/5/2013	6/5/2014	5/30/2012	12/13/2012	6/6/2013	12/5/2013	6/5/2014
VOCs (mg/L)										
Chloroethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Prepared by: MHA 7/16/2014
Checked by: TRK 7/21/2014

Notes:

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the method detection limit. Concentration reported is estimated

NA = not analyzed

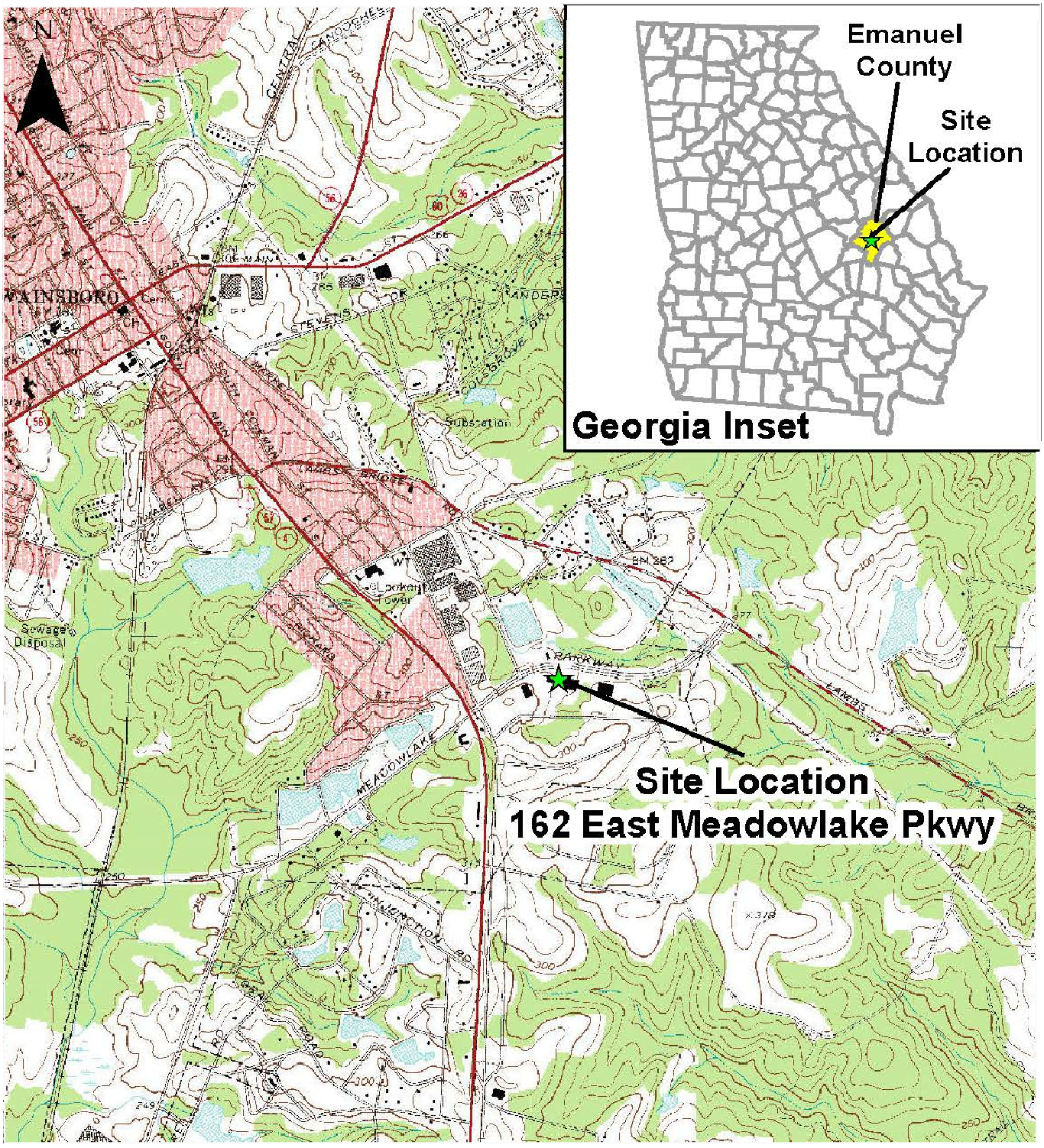
TABLE 6: SUMMARY OF HOURS INVOICED AND DESCRIPTION OF SERVICES

	Hours Invoiced	Billing Period	Invoice #	Description of Services
Gregory J. Wrenn, P.E.	7.5	1/25/2014- 2/21/2014	H081001045	Preparation of draft VRP Progress Report No. 4
Total Project Hours for Billing Period	34.4		2/28/2014	Submittal of final VRP Progress Report No. 4 to EPD February 20, 2014
Gregory J. Wrenn, P.E.	1.0	2/22/2014-3/21/2014	H08100959	Project/file management
Total Project Hours for Billing Period	1.3		3/28/2014	
Gregory J. Wrenn, P.E.	4.0	3/22/2014-5/23/2014	H081001203	Plan/coordinate semi-annual sampling event No.5
Total Project Hours for Billing Period	5.5		6/5/2014	
Gregory J. Wrenn, P.E.	6	5/24/2014-6/13/2014	H081001264	Conduct semi-annual sampling event No. 5
Total Project Hours for Billing Period	114.5		6/19/2014	Plan/ coordinate HVE event
Gregory J. Wrenn, P.E.	7	6/14/2014-7/11/2014	H081001334	Preparation of VRP Progress Report No. 5
Total Project Hours for Billing Period	43.6		7/18/2014	Laboratory analysis for groundwater/surface water sampling event Field expenses/equipment for groundwater/surface water sampling event Oversight of HVE event Carbon for treatment of recovered fluid from HVE event
Total Hours for PE Gregory J. Wrenn	**25.5**			
Total Project Hours	**199.3**			

Prepared by: MHA 7/17/2014
Checked by: GJW 8/6/14

FIGURES

J:\STI\JUNE 2012\FIG 1– SITE LOCATION MAP.dwg – Layout1 07/11/2012 3:55pm Tonya.Gladstone



Source: USGS 7.5 Minute Topographic Quadrangle, Swainsboro Quad

STI PROPERTIES, INC
162 E. MEADOWLAKE PKWY
SWAINSBORO, GA

amec
AMEC Environment & Infrastructure, Inc.
3200 TOWN POINT DRIVE, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

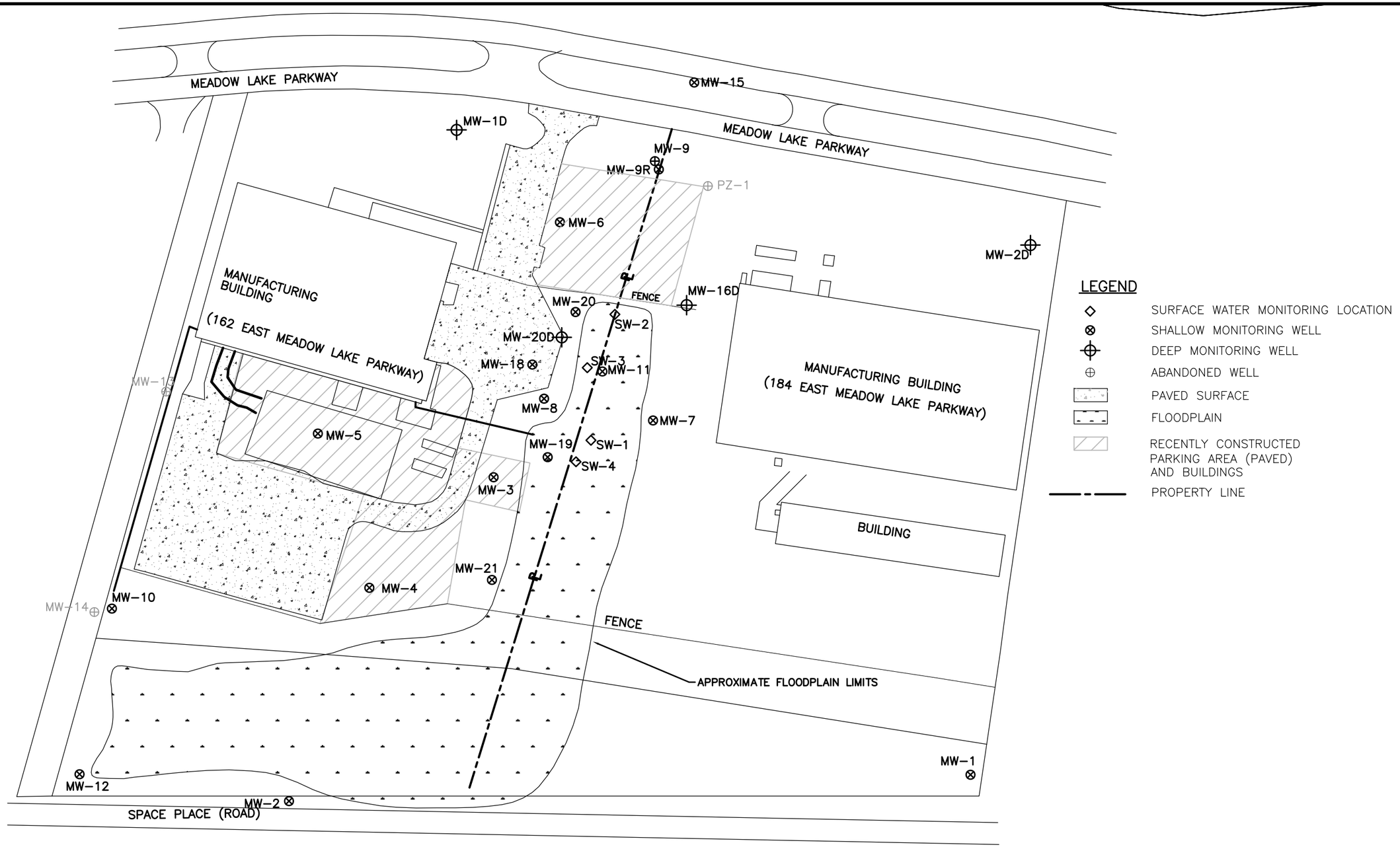
SITE LOCATION MAP

JOB NO. 6125–08–0149 FIGURE 1

PREPARED BY/DATE

CHECKED BY/DATE

J:\STI\JANUARY 2013\FIG 2-SITE LAYOUT MAP.dwg - Layout1 01/31/2013 10:14am Tonya.gladstone



SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. GIS, AND ESRI WEBMAP SERVICE.

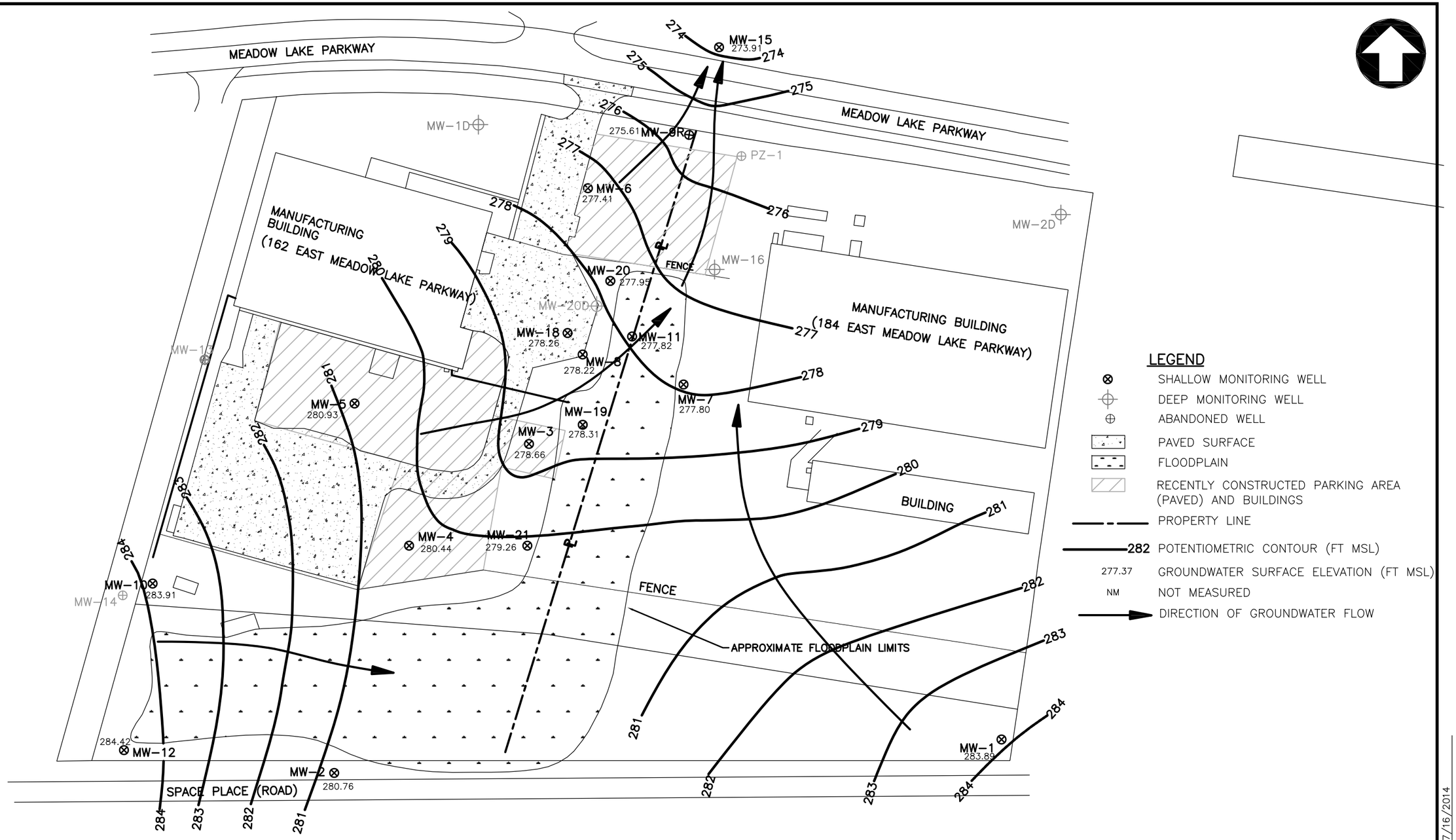
STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 2
SITE LAYOUT MAP

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 6/22/2012
CHECKED BY/DATE RPR 6/26/2012



LEGEND

- ⊗ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- ⊕ ABANDONED WELL
- PAVED SURFACE
- FLOODPLAIN
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE
- 282 POTENTIOMETRIC CONTOUR (FT MSL)
- 277.37 GROUNDWATER SURFACE ELEVATION (FT MSL)
- NM NOT MEASURED
- DIRECTION OF GROUNDWATER FLOW

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

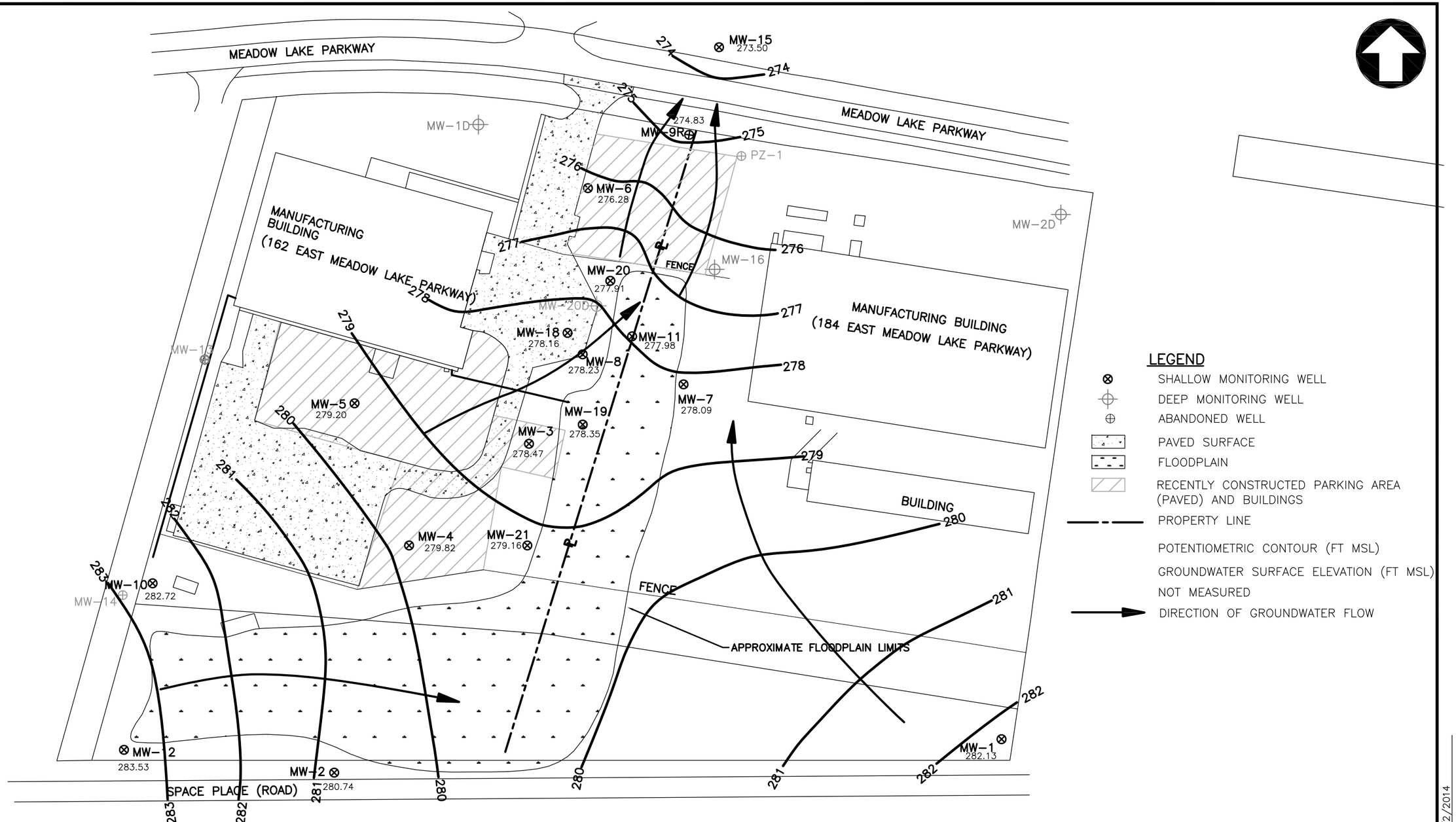
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 3a
SHALLOW ZONE
POTENTIOMETRIC SURFACE MAP
JUNE 2014

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 7/16/2014
CHECKED BY/DATE TRK 7/24/2014

J:\STI\JUNE 2014\FIG 3a-SHALLOW ZONE- POTMAP DEC 2013.dwg - Layout1 07/23/2014 11:50am Tonya.Gladstone



LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- PAVED SURFACE
- FLOODPLAIN
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE
- POTENTIOMETRIC CONTOUR (FT MSL)
- GROUNDWATER SURFACE ELEVATION (FT MSL)
- NOT MEASURED
- DIRECTION OF GROUNDWATER FLOW

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

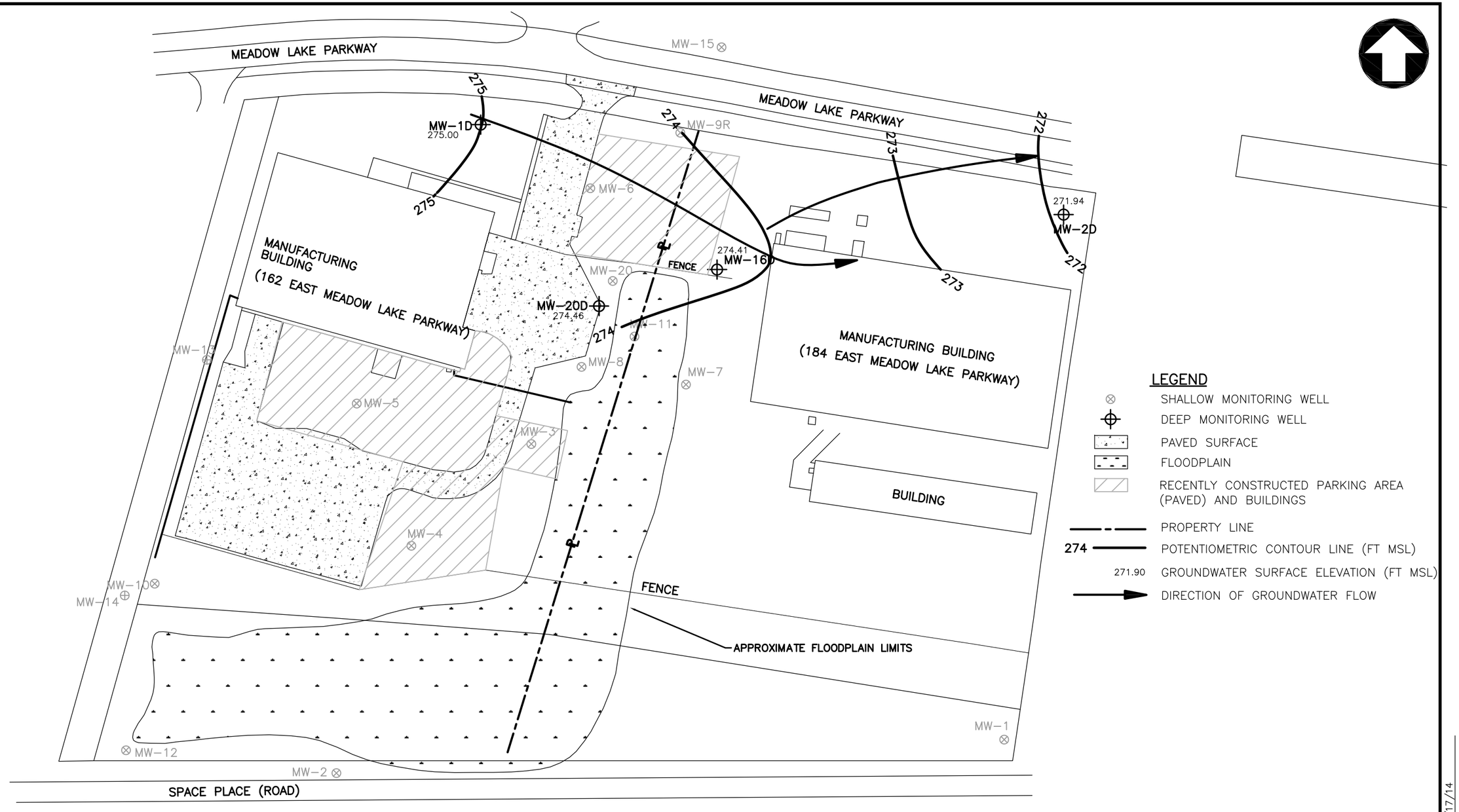
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 3b
SHALLOW ZONE
POTENTIOMETRIC SURFACE MAP
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 1/2/2014
CHECKED BY/DATE MHA 6/23/2014

J:\STI\JUNE 2014\FIG 4a-DEEP ZONE POT SURF-JUNE 2014.dwg - Layout1 07/29/2014 9:07am Tonya.Gladstone



SCALE IN FEET

0 100 200

SOURCE: EMCON, 12/98 AND 6/99

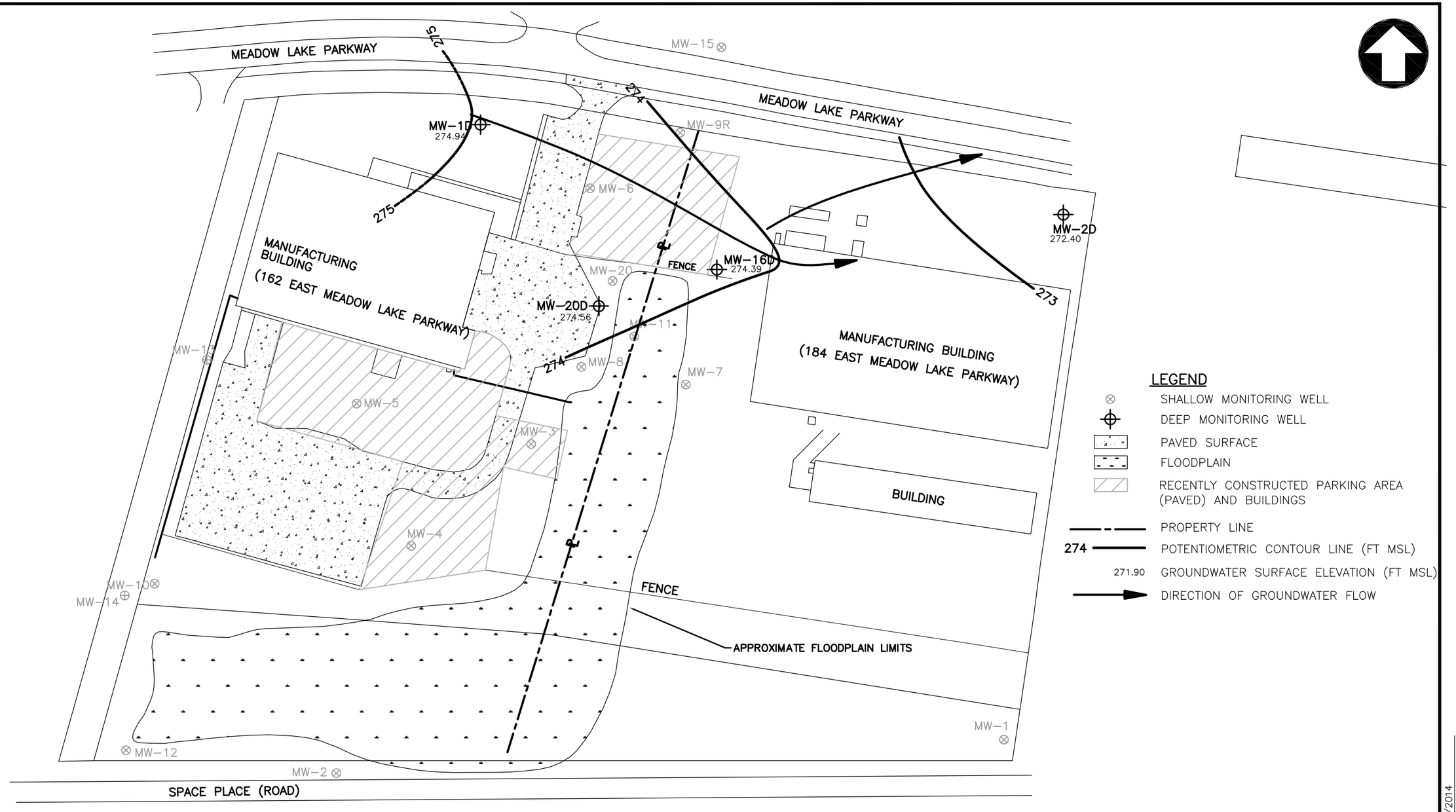
STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 4a
DEEP ZONE
POTENTIOMETRIC SURFACE MAP
JUNE 2014

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 6/17/14
CHECKED BY/DATE TRK 7/24/14



LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- PAVED SURFACE
- FLOODPLAIN
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE
- 274 POTENTIOMETRIC CONTOUR LINE (FT MSL)
- 271.90 GROUNDWATER SURFACE ELEVATION (FT MSL)
- DIRECTION OF GROUNDWATER FLOW

SCALE IN FEET

0 100 200

SOURCE: EMCON, 12/98 AND 6/99

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 4b
DEEP ZONE
POTENTIOMETRIC SURFACE MAP
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 1/2/2014
CHECKED BY/DATE MHA 6/23/2014

J:\STI\JUNE 2014\FIG 5–VOC CONCEN IN GW–JUNE 2014.dwg – Layout1 07/29/2014 9:11am Tonya.Gladstone

MW-18	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	0.0029

MW-20D	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-20	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.0048**

MW-15	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-9R	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-6	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-8 /DUP-1	Jun-14	
CE	0.016	0.016
1,1,2,2-TCA	<0.005	<0.005
1,1,1-TCA	0.49	0.55
1,1,2-TCA	<0.005	<0.005
TCE	**1.5**	**1.7**
1,1-DCE	**1.1**	**1.2**
1,1-DCA	0.12	0.12
1,2-DCA	<0.005	<0.005
cis-1,2-DCE	**1.5**	**1.5**
trans-1,2-DCE	<0.005	<0.005
VC	**0.90**	**0.99**

MW-19	Jun-14
CE	0.270
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	**0.450**
1,1-DCE	0.270
1,1-DCA	0.044
1,2-DCA	<0.005
cis-1,2-DCE	0.220
trans-1,2-DCE	<0.005
VC	**0.420**

MW-11	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

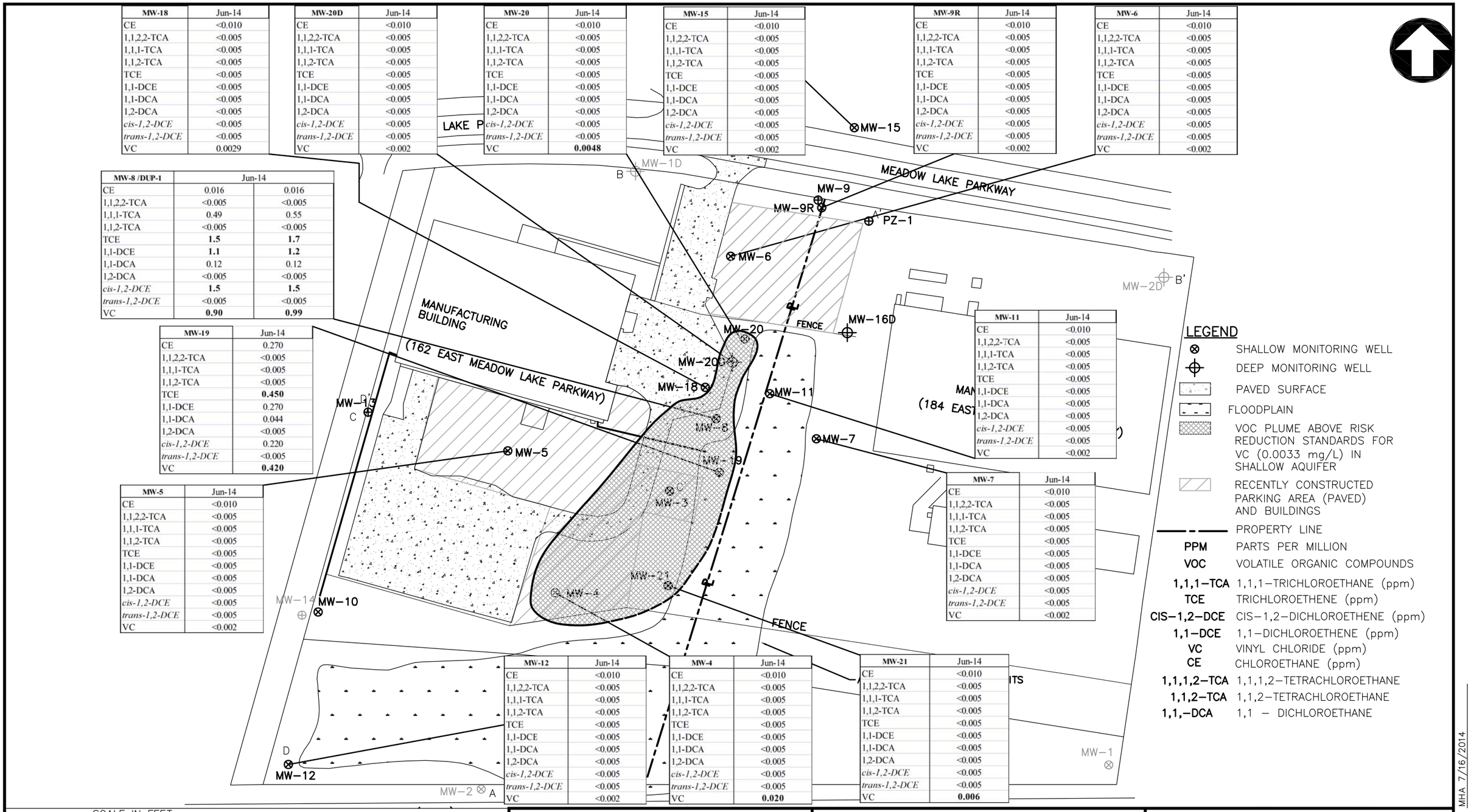
MW-7	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-5	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-12	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-4	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.020**

MW-21	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.006**



LEGEND

- ⊗ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- PAVED SURFACE
- FLOODPLAIN
- VOC PLUME ABOVE RISK REDUCTION STANDARDS FOR VC (0.0033 mg/L) IN SHALLOW AQUIFER
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE

PPM	PARTS PER MILLION
VOC	VOLATILE ORGANIC COMPOUNDS
1,1,1–TCA	1,1,1–TRICHLOROETHANE (ppm)
TCE	TRICHLOROETHENE (ppm)
CIS–1,2–DCE	CIS–1,2–DICHLOROETHENE (ppm)
1,1–DCE	1,1–DICHLOROETHENE (ppm)
VC	VINYL CHLORIDE (ppm)
CE	CHLOROETHANE (ppm)
1,1,1,2–TCA	1,1,1,2–TETRACHLOROETHANE
1,1,2–TCA	1,1,2–TETRACHLOROETHANE
1,1,–DCA	1,1 – DICHLOROETHANE

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. NEW SURVEYED POINTS, MW–3, 4, 5, 18, 19, 20 AND 20D, SEPTEMBER 22, 2009.

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

FIGURE 5
VOC CONCENTRATIONS IN GROUNDWATER JUNE 2014

JOB NO. 6125–08–0149

PREPARED BY/DATE MHA 7/16/2014
CHECKED BY/DATE TRK 7/24/2014

J:\STI\JUNE 2014\FIG 6-SURFACE WATER ANALYTICAL RESULTS JUNE2014.dwg – Layout1 07/29/2014 9:13am Tonya.Gladstone

SW-6	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-2	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-5	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-4	Jun-14
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

UNNAMED TRIBUTARY
TRIBUTARY OF HUGHES PRONG
(INTERMITTENT STREAM)

SW-6
SW-5
SW-4
SW-2
CULVERT

MEADOW LAKE PARKWAY
MEADOW LAKE PARKWAY
MW-1D
MW-9R
MW-15
MW-3
PZ-1
MW-6
MW-2D
MW-16
MW-20
MW-20D
MW-18
MW-11
MW-8
MW-7
MW-19
MW-5
MW-4
MW-14
MW-10
MW-12
MW-2
MW-1
SPACE PLACE (ROAD)

MANUFACTURING BUILDING (162 EAST MEADOW LAKE PARKWAY)
MANUFACTURING BUILDING (184 EAST MEADOW LAKE PARKWAY)
BUILDING
FENCE
FENCE
FORMER DISCHARGE PIPE NOW ABANDONED
APPROXIMATE FLOODPLAIN LIMITS

LEGEND

- SURFACE WATER MONITORING LOCATION
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- FLOODPLAIN

SCALE IN FEET

0 200 400

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. GIS, AND ESRI WEBMAP SERVICE.

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

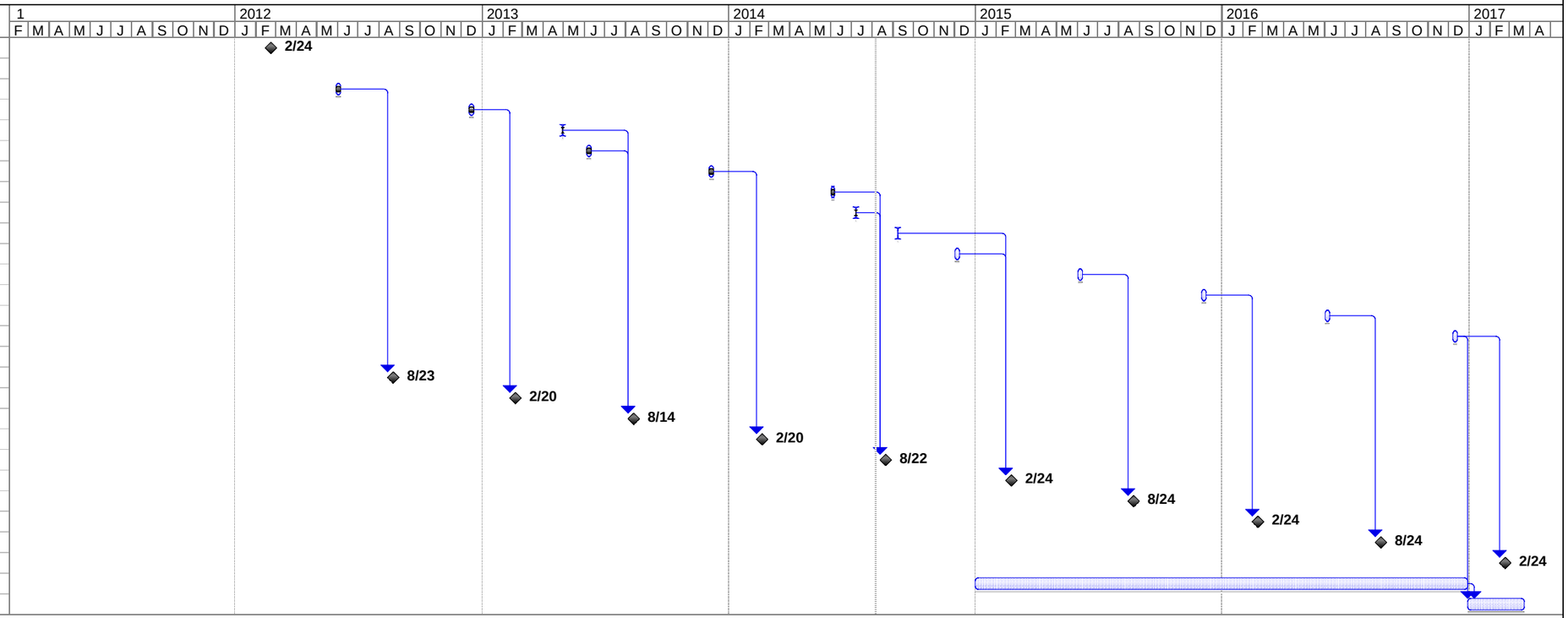
FIGURE 6
SURFACE WATER ANALYTICAL RESULTS JUNE 2014

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 7/16/2014
CHECKED BY/DATE TRK 7/24/2014

FIGURE 7
UPDATED SCHEDULE FOR VRP IMPLEMNTATION
STI SWAINSBORO, GA

ID	Task Name
1	EPD approves VRP Application and Remediation Plan
2	**Semi-Annual Sampling Event**
3	Semi-Annual Sampling Event 1
4	Semi-Annual Sampling Event 2
5	**HVR Event**
6	Semi-Annual Sampling Event 3
7	Semi-Annual Sampling Event 4
8	Semi-Annual Sampling Event 5
9	**HVR Event**
10	Interim Sampling Event
11	Semi-Annual Sampling Event 6
12	Semi-Annual Sampling Event 7
13	Semi-Annual Sampling Event 8
14	Semi-Annual Sampling Event 9
15	Semi-Annual Sampling Event 10
16	**Submit Semi-Annual Status Report**
17	Submit Semi-Annual Status Report 1
18	Submit Semi-Annual Status Report 2
19	Submit Semi-Annual Status Report 3
20	Submit Semi-Annual Status Report 4
21	Submit Semi-Annual Status Report 5
22	Submit Semi-Annual Status Report 6
23	Submit Semi-Annual Status Report 7
24	Submit Semi-Annual Status Report 8
25	Submit Semi-Annual Status Report 9
26	Submit Semi-Annual Status Report 10
27	Implement Restrictive Covenant
28	Preparation and Submittal of Post-Remediation CSR



Project: STI Swainsboro VRP Schedul
Date: Wed 8/6/14

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

APPENDIX A

LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-103043-1
Client Project/Site: System Effluent

For:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road, NW
Suite 100
Kennesaw, Georgia 30144

Attn: Greg Wrenn

Authorized for release by:
7/9/2014 9:34:18 AM

Lisa Harvey, Project Manager II
(912)354-7858 e.3221
lisa.harvey@testamericainc.com

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Glossary

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

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-103043-1	System Eff	Water	07/08/14 12:00	07/08/14 13:29

Job ID: 680-103043-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: AMEC Environment & Infrastructure, Inc.
Project: System Effluent
Report Number: 680-103043-1

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

RECEIPT

The samples were received on 07/08/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.0 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample System Eff (680-103043-1) was analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/08/2014.

Method(s) 8260B: One surrogate recovery for the following sample was outside control limits: System Eff (680-103043-1). Evidence of matrix interferences is not obvious. The sample was re-analyzed on a different instrument and the surrogate was again outside control limits. The original analysis is reported.

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

Client Sample ID: System Eff
Date Collected: 07/08/14 12:00
Date Received: 07/08/14 13:29

Lab Sample ID: 680-103043-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	5.0	U	5.0	2.0	ug/L			07/08/14 16:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/08/14 16:21	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/08/14 16:21	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/08/14 16:21	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/08/14 16:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/08/14 16:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/08/14 16:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/08/14 16:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/08/14 16:21	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/08/14 16:21	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/08/14 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*64*	*X*	*70 - 130*		*07/08/14 16:21*	*1*
Dibromofluoromethane	*118*		*70 - 130*		*07/08/14 16:21*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*07/08/14 16:21*	*1*

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

Lab Sample ID: MB 680-338006/9
Matrix: Water
Analysis Batch: 338006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	5.0	U	5.0	2.0	ug/L			07/08/14 12:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/08/14 12:00	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/08/14 12:00	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/08/14 12:00	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/08/14 12:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/08/14 12:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/08/14 12:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/08/14 12:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/08/14 12:00	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/08/14 12:00	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/08/14 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*07/08/14 12:00*	*1*
Dibromofluoromethane	*121*		*70 - 130*		*07/08/14 12:00*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*07/08/14 12:00*	*1*

Lab Sample ID: LCS 680-338006/4
Matrix: Water
Analysis Batch: 338006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	50.0	48.8		ug/L		98	47 - 148
cis-1,2-Dichloroethene	50.0	52.1		ug/L		104	78 - 127
1,1-Dichloroethane	50.0	53.4		ug/L		107	69 - 132
1,2-Dichloroethane	50.0	54.4		ug/L		109	75 - 120
1,1-Dichloroethene	50.0	52.2		ug/L		104	73 - 134
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/L		107	71 - 127
trans-1,2-Dichloroethene	50.0	51.4		ug/L		103	78 - 130
1,1,1-Trichloroethane	50.0	59.6		ug/L		119	76 - 126
1,1,2-Trichloroethane	50.0	56.9		ug/L		114	69 - 127
Trichloroethene	50.0	51.2		ug/L		102	80 - 120
Vinyl chloride	50.0	53.1		ug/L		106	58 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
Dibromofluoromethane	*106*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 680-338006/5
Matrix: Water
Analysis Batch: 338006

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	50.0	52.0		ug/L		104	47 - 148	6	40
cis-1,2-Dichloroethene	50.0	55.3		ug/L		111	78 - 127	6	30
1,1-Dichloroethane	50.0	51.7		ug/L		103	69 - 132	3	30

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

Lab Sample ID: LCSD 680-338006/5
Matrix: Water
Analysis Batch: 338006

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane			50.0	57.6		ug/L		115	75 - 120	6	30
1,1-Dichloroethene			50.0	49.3		ug/L		99	73 - 134	6	30
1,1,2,2-Tetrachloroethane			50.0	58.5		ug/L		117	71 - 127	9	30
trans-1,2-Dichloroethene			50.0	53.1		ug/L		106	78 - 130	3	30
1,1,1-Trichloroethane			50.0	58.5		ug/L		117	76 - 126	2	30
1,1,2-Trichloroethane			50.0	58.6		ug/L		117	69 - 127	3	30
Trichloroethene			50.0	50.5		ug/L		101	80 - 120	1	30
Vinyl chloride			50.0	51.0		ug/L		102	58 - 141	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane	*111*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

GC/MS VOA

Analysis Batch: 338006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-103043-1	System Eff	Total/NA	Water	8260B	
LCS 680-338006/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-338006/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-338006/9	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

Client Sample ID: System Eff
Date Collected: 07/08/14 12:00
Date Received: 07/08/14 13:29

Lab Sample ID: 680-103043-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	338006	07/08/14 16:21	MMT	TAL SAV
	Instrument ID: CMSA2									

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-15

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: System Effluent

TestAmerica Job ID: 680-103043-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV

Protocol References:

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 85273

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO. 60125 080149	PROJECT LOCATION (STATE) GA	MATRIX TYPE	REQUIRED ANALYSIS	PAGE / OF
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.			STANDARD REPORT DELIVERY ◯
CLIENT (SITE) PM AMEC GREG STI WREN	CLIENT PHONE 770 [illegible]-3472	CLIENT FAX			DATE DUE
CLIENT NAME AMEC	CLIENT E-MAIL				EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
CLIENT ADDRESS 1075 Big Shanty RD Kennesaw GA					DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable) TANYA KINNARD					NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
								H VOCs 8260B	PRESERVATIVE
7/8/14	1200	System Eff	G	W				X	Same Day Rush
									Before 10:00 Am 7/9/14
		See Attached Sheet For VOE's To Be Summed							Rush Rush

680-103043 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	7/8/14	1230						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
	7/08/14	1325						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	7/08/14	13:29	YES ◯ NO ◯		680-103043	3.0 0-1

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 680-103043-1

Login Number: 103043

List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

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

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

July 22, 2014

Greg Wrenn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX: (770) 421-3486

RE: STI Swainsboro GA

Dear Greg Wrenn: Order No: 1406579

Analytical Environmental Services, Inc. received 22 samples on 6/6/2014 11:29:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Tara Esbeck
Project Manager

Revision 7/22/2014

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1406579

Date: 6-5-14 Page 1 of 2

COMPANY: AMEC	ADDRESS: 1075 Big Shanty RD NW Suite 100 Kennesaw GA 30144
PHONE: 770-421-3400	FAX:
SAMPLED BY: Mark A. and Errol G.	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	Site VOCs 8260B	Gases SOP=RSK175 Methane, ethene, ethane	DRO SW8015	PCBs SW8082	PRESERVATION (See codes) #+I	PRESERVATION (See codes) #+L	REMARKS	No # of Containers
1	MW-20D	6-3-14	1130	✓		GW	✓	✓			✓	✓		4
2	MW-20	6-3-14	1317	✓		GW	✓	✓			✓	✓		4
3	MW-8	6-3-14	1508	✓		GW	✓	✓			✓	✓		4
4	MW-18	6-3-14	1642	✓		GW	✓	✓			✓	✓		4
5	DUP-1	6-3-14	1200	✓		GW	✓	✓			✓	✓		4
6	MW-12	6-3-14	1145	✓		GW	✓	✓			✓	✓		4
7	MW-15	6-3-14	1310	✓		GW	✓	✓			✓	✓		4
8	MW-9R	6-3-14	1440	✓		GW	✓	✓			✓	✓		4
9	MW-6	6-3-14	1635	✓		GW	✓	✓			✓	✓		4
10	MW-11	6-4-14	1013	✓		GW	✓	✓			✓	✓		4
11	MW-19	6-4-14	1153	✓		GW	✓	✓			✓	✓		4
12	MW-5	6-4-14	1512	✓		GW	✓	✓			✓	✓		4
13	MW-4	6-4-14	1025	✓		GW	✓	✓			✓	✓		4
14	MW-21	6-4-14	1215	✓		GW	✓	✓			✓	✓		4

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Mark Andrews	6-6-14 1127	1: Latoya R	6/6/14 11:29 a
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: STI
PROJECT #: 6125-08-0149
SITE ADDRESS: Swainsboro, GA
SEND REPORT TO: Greg Wrenn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1406579

Date: 6-5-14 Page 1 of 2

COMPANY:	ADDRESS:
AMEC	1075 Big Shanty RD NW Suite 100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX:
SAMPLED BY:	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)				ANALYSIS REQUESTED: 5260 VOCs 8260B	DRO 8015	PCBs 8082	Gases SOP: RSK175 methane, ethene, ethane	REMARKS	No # of Containers
1	MW-7	6-4-14	1545	✓		GW	✓			✓	✓					4
2	MW-10	6-5-14	1020	✓		GW		✓	✓			✓	✓			4
3	SW-2	6-5-14	1120	✓		SW	✓				✓					2
4	SW-4	6-5-14	1133	✓		SW	✓				✓					2
5	SW-5	6-5-14	1145	✓		SW	✓				✓					2
6	SW-6	6-5-14	1210	✓		SW	✓				✓					2
7	Drum-2013	6-5-14	1300	✓		GW	✓				✓					2
8	Trip Blank			✓		W	✓				✓					4
9																
10																
11																
12																
13																
14																

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Mark Andrews	6-6-14 1127	1: Cataya R	6/6/14 11:29a
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: STI
PROJECT #: 6125-08-0149
SITE ADDRESS: Swainsboro, GA
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush **(auth req.)**
- ( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-20D
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 11:30:00 AM
Lab ID:	1406579-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 17:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 17:26	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 17:26	GK
Surr: 4-Bromofluorobenzene	88.8	66.2-120		%REC	192179	1	06/09/2014 17:26	GK
Surr: Dibromofluoromethane	96.1	79.5-121		%REC	192179	1	06/09/2014 17:26	GK
Surr: Toluene-d8	98.8	77-117		%REC	192179	1	06/09/2014 17:26	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 11:43	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 11:43	SH
Methane	BRL	4		ug/L	192264	1	06/11/2014 11:43	SH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-20
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 1:17:00 PM
Lab ID:	1406579-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 18:48	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 18:48	GK
Vinyl chloride	4.8	2.0		ug/L	192179	1	06/09/2014 18:48	GK
Surr: 4-Bromofluorobenzene	87.7	66.2-120		%REC	192179	1	06/09/2014 18:48	GK
Surr: Dibromofluoromethane	96.3	79.5-121		%REC	192179	1	06/09/2014 18:48	GK
Surr: Toluene-d8	99.7	77-117		%REC	192179	1	06/09/2014 18:48	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 12:07	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 12:07	SH
Methane	5400	400		ug/L	192264	100	06/11/2014 12:52	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-8
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 3:08:00 PM
Lab ID:	1406579-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	490	100		ug/L	192179	20	06/10/2014 18:13	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:15	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:15	GK
1,1-Dichloroethane	120	5.0		ug/L	192179	1	06/09/2014 19:15	GK
1,1-Dichloroethene	1100	100		ug/L	192179	20	06/10/2014 18:13	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:15	GK
Chloroethane	16	10		ug/L	192179	1	06/09/2014 19:15	GK
cis-1,2-Dichloroethene	1500	100		ug/L	192179	20	06/10/2014 18:13	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 19:15	GK
Trichloroethene	1500	100		ug/L	192179	20	06/10/2014 18:13	GK
Vinyl chloride	900	40		ug/L	192179	20	06/10/2014 18:13	GK
Surr: 4-Bromofluorobenzene	88.9	66.2-120		%REC	192179	1	06/09/2014 19:15	GK
Surr: 4-Bromofluorobenzene	88.3	66.2-120		%REC	192179	20	06/10/2014 18:13	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	192179	1	06/09/2014 19:15	GK
Surr: Dibromofluoromethane	94.2	79.5-121		%REC	192179	20	06/10/2014 18:13	GK
Surr: Toluene-d8	98.8	77-117		%REC	192179	1	06/09/2014 19:15	GK
Surr: Toluene-d8	98.5	77-117		%REC	192179	20	06/10/2014 18:13	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 12:35	SH
Ethylene	24	7		ug/L	192264	1	06/11/2014 12:35	SH
Methane	4800	400		ug/L	192264	100	06/11/2014 13:22	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-18
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 4:42:00 PM
Lab ID:	1406579-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 19:43	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 19:43	GK
Vinyl chloride	2.9	2.0		ug/L	192179	1	06/09/2014 19:43	GK
Surr: 4-Bromofluorobenzene	90.6	66.2-120		%REC	192179	1	06/09/2014 19:43	GK
Surr: Dibromofluoromethane	100	79.5-121		%REC	192179	1	06/09/2014 19:43	GK
Surr: Toluene-d8	97.8	77-117		%REC	192179	1	06/09/2014 19:43	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 14:52	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 14:52	SH
Methane	4100	400		ug/L	192264	100	06/11/2014 15:08	SH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	DUP-1
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 12:00:00 PM
Lab ID:	1406579-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	550	250		ug/L	192179	50	06/10/2014 16:52	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:10	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:10	GK
1,1-Dichloroethane	120	5.0		ug/L	192179	1	06/09/2014 20:10	GK
1,1-Dichloroethene	1200	250		ug/L	192179	50	06/10/2014 16:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:10	GK
Chloroethane	16	10		ug/L	192179	1	06/09/2014 20:10	GK
cis-1,2-Dichloroethene	1500	250		ug/L	192179	50	06/10/2014 16:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 20:10	GK
Trichloroethene	1700	250		ug/L	192179	50	06/10/2014 16:52	GK
Vinyl chloride	990	100		ug/L	192179	50	06/10/2014 16:52	GK
Surr: 4-Bromofluorobenzene	86.5	66.2-120		%REC	192179	50	06/10/2014 16:52	GK
Surr: 4-Bromofluorobenzene	88	66.2-120		%REC	192179	1	06/09/2014 20:10	GK
Surr: Dibromofluoromethane	95	79.5-121		%REC	192179	50	06/10/2014 16:52	GK
Surr: Dibromofluoromethane	115	79.5-121		%REC	192179	1	06/09/2014 20:10	GK
Surr: Toluene-d8	100	77-117		%REC	192179	1	06/09/2014 20:10	GK
Surr: Toluene-d8	98.2	77-117		%REC	192179	50	06/10/2014 16:52	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 14:57	SH
Ethylene	23	7		ug/L	192264	1	06/11/2014 14:57	SH
Methane	4000	200		ug/L	192264	50	06/11/2014 15:14	SH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-12
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 11:45:00 AM
Lab ID:	1406579-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 20:38	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 20:38	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 20:38	GK
Surr: 4-Bromofluorobenzene	88.6	66.2-120		%REC	192179	1	06/09/2014 20:38	GK
Surr: Dibromofluoromethane	96.2	79.5-121		%REC	192179	1	06/09/2014 20:38	GK
Surr: Toluene-d8	99.7	77-117		%REC	192179	1	06/09/2014 20:38	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 15:02	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 15:02	SH
Methane	BRL	4		ug/L	192264	1	06/11/2014 15:02	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-15
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 1:10:00 PM
Lab ID:	1406579-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 21:05	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:05	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 21:05	GK
Surr: 4-Bromofluorobenzene	88.4	66.2-120		%REC	192179	1	06/09/2014 21:05	GK
Surr: Dibromofluoromethane	96.5	79.5-121		%REC	192179	1	06/09/2014 21:05	GK
Surr: Toluene-d8	99.9	77-117		%REC	192179	1	06/09/2014 21:05	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 15:20	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 15:20	SH
Methane	3500	200		ug/L	192264	50	06/11/2014 16:53	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-9R
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 2:40:00 PM
Lab ID:	1406579-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 21:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 21:33	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 21:33	GK
Surr: 4-Bromofluorobenzene	88	66.2-120		%REC	192179	1	06/09/2014 21:33	GK
Surr: Dibromofluoromethane	97.2	79.5-121		%REC	192179	1	06/09/2014 21:33	GK
Surr: Toluene-d8	99.8	77-117		%REC	192179	1	06/09/2014 21:33	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 15:27	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 15:27	SH
Methane	200	8		ug/L	192264	2	06/11/2014 17:10	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-6
Project Name:	STI Swainsboro GA	**Collection Date:**	6/3/2014 4:35:00 PM
Lab ID:	1406579-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 22:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:00	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 22:00	GK
Surr: 4-Bromofluorobenzene	88.2	66.2-120		%REC	192179	1	06/09/2014 22:00	GK
Surr: Dibromofluoromethane	96.9	79.5-121		%REC	192179	1	06/09/2014 22:00	GK
Surr: Toluene-d8	99.2	77-117		%REC	192179	1	06/09/2014 22:00	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 15:35	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 15:35	SH
Methane	1800	80		ug/L	192264	20	06/11/2014 17:20	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-11
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 10:13:00 AM
Lab ID:	1406579-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 22:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:27	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 22:27	GK
Surr: 4-Bromofluorobenzene	87.9	66.2-120		%REC	192179	1	06/09/2014 22:27	GK
Surr: Dibromofluoromethane	96.9	79.5-121		%REC	192179	1	06/09/2014 22:27	GK
Surr: Toluene-d8	100	77-117		%REC	192179	1	06/09/2014 22:27	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 17:28	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 17:28	SH
Methane	740	40		ug/L	192264	10	06/11/2014 17:44	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-19
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 11:53:00 AM
Lab ID:	1406579-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:55	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:55	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:55	GK
1,1-Dichloroethane	44	5.0		ug/L	192179	1	06/09/2014 22:55	GK
1,1-Dichloroethene	270	50		ug/L	192179	10	06/10/2014 18:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 22:55	GK
Chloroethane	270	100		ug/L	192179	10	06/10/2014 18:41	GK
cis-1,2-Dichloroethene	220	50		ug/L	192179	10	06/10/2014 18:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 22:55	GK
Trichloroethene	450	50		ug/L	192179	10	06/10/2014 18:41	GK
Vinyl chloride	420	20		ug/L	192179	10	06/10/2014 18:41	GK
Surr: 4-Bromofluorobenzene	85.7	66.2-120		%REC	192179	1	06/09/2014 22:55	GK
Surr: 4-Bromofluorobenzene	88.2	66.2-120		%REC	192179	10	06/10/2014 18:41	GK
Surr: Dibromofluoromethane	91.3	79.5-121		%REC	192179	10	06/10/2014 18:41	GK
Surr: Dibromofluoromethane	97.1	79.5-121		%REC	192179	1	06/09/2014 22:55	GK
Surr: Toluene-d8	98.9	77-117		%REC	192179	1	06/09/2014 22:55	GK
Surr: Toluene-d8	98.5	77-117		%REC	192179	10	06/10/2014 18:41	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	37	9		ug/L	192264	1	06/11/2014 17:33	SH
Ethylene	260	7		ug/L	192264	1	06/11/2014 17:33	SH
Methane	4800	400		ug/L	192264	100	06/11/2014 17:52	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-5
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 3:12:00 PM
Lab ID:	1406579-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 23:22	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:22	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/09/2014 23:22	GK
Surr: 4-Bromofluorobenzene	87.3	66.2-120		%REC	192179	1	06/09/2014 23:22	GK
Surr: Dibromofluoromethane	96.9	79.5-121		%REC	192179	1	06/09/2014 23:22	GK
Surr: Toluene-d8	100	77-117		%REC	192179	1	06/09/2014 23:22	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 17:38	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 17:38	SH
Methane	54	4		ug/L	192264	1	06/11/2014 17:38	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-4
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 10:25:00 AM
Lab ID:	1406579-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
Chloroethane	BRL	10		ug/L	192179	1	06/09/2014 23:49	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/09/2014 23:49	GK
Vinyl chloride	20	2.0		ug/L	192179	1	06/09/2014 23:49	GK
Surr: 4-Bromofluorobenzene	88.7	66.2-120		%REC	192179	1	06/09/2014 23:49	GK
Surr: Dibromofluoromethane	96.4	79.5-121		%REC	192179	1	06/09/2014 23:49	GK
Surr: Toluene-d8	97.2	77-117		%REC	192179	1	06/09/2014 23:49	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 17:57	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 17:57	SH
Methane	3800	200		ug/L	192264	50	06/11/2014 18:31	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-21
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 12:15:00 PM
Lab ID:	1406579-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 00:17	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 00:17	GK
Vinyl chloride	6.0	2.0		ug/L	192179	1	06/10/2014 00:17	GK
Surr: 4-Bromofluorobenzene	86.5	66.2-120		%REC	192179	1	06/10/2014 00:17	GK
Surr: Dibromofluoromethane	95.6	79.5-121		%REC	192179	1	06/10/2014 00:17	GK
Surr: Toluene-d8	98.9	77-117		%REC	192179	1	06/10/2014 00:17	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 18:02	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 18:02	SH
Methane	3400	200		ug/L	192264	50	06/11/2014 18:36	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-7
Project Name:	STI Swainsboro GA	**Collection Date:**	6/4/2014 3:45:00 PM
Lab ID:	1406579-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 19:08	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:08	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/10/2014 19:08	GK
Surr: 4-Bromofluorobenzene	89	66.2-120		%REC	192179	1	06/10/2014 19:08	GK
Surr: Dibromofluoromethane	93.7	79.5-121		%REC	192179	1	06/10/2014 19:08	GK
Surr: Toluene-d8	101	77-117		%REC	192179	1	06/10/2014 19:08	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	192264	1	06/11/2014 18:16	SH
Ethylene	BRL	7		ug/L	192264	1	06/11/2014 18:16	SH
Methane	1300	80		ug/L	192264	20	06/11/2014 18:41	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	MW-10
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 10:20:00 AM
Lab ID:	1406579-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3510C)**				
Aroclor 1016	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1221	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1232	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1242	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1248	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1254	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Aroclor 1260	BRL	0.50		ug/L	192415	1	06/16/2014 13:34	RS
Surr: Decachlorobiphenyl	56	17.1-126		%REC	192415	1	06/16/2014 13:34	RS
Surr: Tetrachloro-m-xylene	69.2	21-129		%REC	192415	1	06/16/2014 13:34	RS
DIESEL RANGE ORGANICS SW8015C				**(SW3510C)**				
Diesel Range Organics	BRL	0.20		mg/L	192177	1	06/10/2014 18:18	SH
Surr: Dioctylphthalate	86.2	43.6-128		%REC	192177	1	06/10/2014 18:18	SH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	SW-2
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 11:20:00 AM
Lab ID:	1406579-017	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 19:35	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 19:35	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/10/2014 19:35	GK
Surr: 4-Bromofluorobenzene	88.3	66.2-120		%REC	192179	1	06/10/2014 19:35	GK
Surr: Dibromofluoromethane	96.3	79.5-121		%REC	192179	1	06/10/2014 19:35	GK
Surr: Toluene-d8	101	77-117		%REC	192179	1	06/10/2014 19:35	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	SW-4
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 11:33:00 AM
Lab ID:	1406579-018	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 20:02	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:02	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/10/2014 20:02	GK
Surr: 4-Bromofluorobenzene	87.3	66.2-120		%REC	192179	1	06/10/2014 20:02	GK
Surr: Dibromofluoromethane	93.7	79.5-121		%REC	192179	1	06/10/2014 20:02	GK
Surr: Toluene-d8	99.1	77-117		%REC	192179	1	06/10/2014 20:02	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	SW-5
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 11:45:00 AM
Lab ID:	1406579-019	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 20:30	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:30	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/10/2014 20:30	GK
Surr: 4-Bromofluorobenzene	86.9	66.2-120		%REC	192179	1	06/10/2014 20:30	GK
Surr: Dibromofluoromethane	94.1	79.5-121		%REC	192179	1	06/10/2014 20:30	GK
Surr: Toluene-d8	99.1	77-117		%REC	192179	1	06/10/2014 20:30	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	SW-6
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 12:10:00 PM
Lab ID:	1406579-020	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
Chloroethane	BRL	10		ug/L	192179	1	06/10/2014 20:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
Trichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 20:57	GK
Vinyl chloride	BRL	2.0		ug/L	192179	1	06/10/2014 20:57	GK
Surr: 4-Bromofluorobenzene	87.3	66.2-120		%REC	192179	1	06/10/2014 20:57	GK
Surr: Dibromofluoromethane	96.9	79.5-121		%REC	192179	1	06/10/2014 20:57	GK
Surr: Toluene-d8	100	77-117		%REC	192179	1	06/10/2014 20:57	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	DRUM-2013
Project Name:	STI Swainsboro GA	**Collection Date:**	6/5/2014 1:00:00 PM
Lab ID:	1406579-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1-Trichloroethane	74	5.0		ug/L	192179	1	06/10/2014 21:24	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 21:24	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 21:24	GK
1,1-Dichloroethane	25	5.0		ug/L	192179	1	06/10/2014 21:24	GK
1,1-Dichloroethene	130	5.0		ug/L	192179	1	06/10/2014 21:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192179	1	06/10/2014 21:24	GK
Chloroethane	18	10		ug/L	192179	1	06/10/2014 21:24	GK
cis-1,2-Dichloroethene	230	50		ug/L	192179	10	06/11/2014 13:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192179	1	06/10/2014 21:24	GK
Trichloroethene	180	5.0		ug/L	192179	1	06/10/2014 21:24	GK
Vinyl chloride	4.9	2.0		ug/L	192179	1	06/10/2014 21:24	GK
Surr: 4-Bromofluorobenzene	86	66.2-120		%REC	192179	1	06/10/2014 21:24	GK
Surr: 4-Bromofluorobenzene	86.9	66.2-120		%REC	192179	10	06/11/2014 13:19	GK
Surr: Dibromofluoromethane	93.3	79.5-121		%REC	192179	10	06/11/2014 13:19	GK
Surr: Dibromofluoromethane	98.6	79.5-121		%REC	192179	1	06/10/2014 21:24	GK
Surr: Toluene-d8	99.4	77-117		%REC	192179	10	06/11/2014 13:19	GK
Surr: Toluene-d8	100	77-117		%REC	192179	1	06/10/2014 21:24	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 22-Jul-14

Client:	AMEC E&I, Inc. -Kennesaw	**Client Sample ID:**	TRIP BLANK
Project Name:	STI Swainsboro GA	**Collection Date:**	6/6/2014 11:27:00 AM
Lab ID:	1406579-022	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
1,1-Dichloroethane	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
1,1-Dichloroethene	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
1,2-Dichloroethane	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
Chloroethane	BRL	10		ug/L	192172	1	06/09/2014 16:31	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
Trichloroethene	BRL	5.0		ug/L	192172	1	06/09/2014 16:31	GK
Vinyl chloride	BRL	2.0		ug/L	192172	1	06/09/2014 16:31	GK
Surr: 4-Bromofluorobenzene	87.9	66.2-120		%REC	192172	1	06/09/2014 16:31	GK
Surr: Dibromofluoromethane	97	79.5-121		%REC	192172	1	06/09/2014 16:31	GK
Surr: Toluene-d8	100	77-117		%REC	192172	1	06/09/2014 16:31	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC Work Order Number 1406579

Checklist completed by IOANA PANURAR 6/7/14
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.4 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by IOANA

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes ✓ No __

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: AMEC E&I, Inc. -Kennesaw
Project: STI Swainsboro GA
Lab Order: 1406579

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1406579-001A	MW-20D	6/3/2014 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-001B	MW-20D	6/3/2014 11:30:00AM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-002A	MW-20	6/3/2014 1:17:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-002B	MW-20	6/3/2014 1:17:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-003A	MW-8	6/3/2014 3:08:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-003A	MW-8	6/3/2014 3:08:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-003B	MW-8	6/3/2014 3:08:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-004A	MW-18	6/3/2014 4:42:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-004B	MW-18	6/3/2014 4:42:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-005A	DUP-1	6/3/2014 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-005A	DUP-1	6/3/2014 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-005B	DUP-1	6/3/2014 12:00:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-006A	MW-12	6/3/2014 11:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-006B	MW-12	6/3/2014 11:45:00AM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-007A	MW-15	6/3/2014 1:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-007B	MW-15	6/3/2014 1:10:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-008A	MW-9R	6/3/2014 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-008B	MW-9R	6/3/2014 2:40:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-009A	MW-6	6/3/2014 4:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-009B	MW-6	6/3/2014 4:35:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-010A	MW-11	6/4/2014 10:13:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-010B	MW-11	6/4/2014 10:13:00AM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-011A	MW-19	6/4/2014 11:53:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-011A	MW-19	6/4/2014 11:53:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-011B	MW-19	6/4/2014 11:53:00AM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-012A	MW-5	6/4/2014 3:12:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-012B	MW-5	6/4/2014 3:12:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-013A	MW-4	6/4/2014 10:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/09/2014
1406579-013B	MW-4	6/4/2014 10:25:00AM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014

Analytical Environmental Services, Inc

Date: 17-Jun-14

Client: AMEC E&I, Inc. -Kennesaw
Project: STI Swainsboro GA
Lab Order: 1406579

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1406579-014A	MW-21	6/4/2014 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-014B	MW-21	6/4/2014 12:15:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-015A	MW-7	6/4/2014 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-015B	MW-7	6/4/2014 3:45:00PM	Groundwater	GC Analysis of Gaseous Samples		06/11/2014	06/11/2014
1406579-016A	MW-10	6/5/2014 10:20:00AM	Groundwater	POLYCHLORINATED BIPHENYLS		06/13/2014	06/16/2014
1406579-016A	MW-10	6/5/2014 10:20:00AM	Groundwater	DIESEL RANGE ORGANICS		06/10/2014	06/10/2014
1406579-016A	MW-10	6/5/2014 10:20:00AM	Groundwater	DIESEL RANGE ORGANICS		06/10/2014	06/10/2014
1406579-017A	SW-2	6/5/2014 11:20:00AM	Surface Water	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-018A	SW-4	6/5/2014 11:33:00AM	Surface Water	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-019A	SW-5	6/5/2014 11:45:00AM	Surface Water	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-020A	SW-6	6/5/2014 12:10:00PM	Surface Water	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-021A	DRUM-2013	6/5/2014 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/10/2014
1406579-021A	DRUM-2013	6/5/2014 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		06/09/2014	06/11/2014
1406579-022A	TRIP BLANK	6/6/2014 11:27:00AM	Aqueous	Volatile Organic Compounds by GC/MS		06/06/2014	06/09/2014

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192172

Sample ID: **MB-192172** Client ID: Units: **ug/L** Prep Date: **06/06/2014** Run No: **269373**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192172** Analysis Date: **06/07/2014** Seq No: **5682300**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Chloroethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	44.25	0	50.00		88.5	66.2	120				
Surr: Dibromofluoromethane	47.47	0	50.00		94.9	79.5	121				
Surr: Toluene-d8	49.88	0	50.00		99.8	77	117				

Sample ID: **LCS-192172** Client ID: Units: **ug/L** Prep Date: **06/06/2014** Run No: **269373**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192172** Analysis Date: **06/06/2014** Seq No: **5682298**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	40.27	5.0	50.00		80.5	63.1	140				
Trichloroethene	53.79	5.0	50.00		108	71.2	135				
Surr: 4-Bromofluorobenzene	47.34	0	50.00		94.7	66.2	120				
Surr: Dibromofluoromethane	48.18	0	50.00		96.4	79.5	121				
Surr: Toluene-d8	49.75	0	50.00		99.5	77	117				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192172

Sample ID: **1406371-005AMS** Client ID: Units: **ug/L** Prep Date: **06/06/2014** Run No: **269373**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192172** Analysis Date: **06/07/2014** Seq No: **5682306**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19600	2500	25000		78.4	60.2	159				
Trichloroethene	25000	2500	25000		100	70.1	144				
Surr: 4-Bromofluorobenzene	23930	0	25000		95.7	66.2	120				
Surr: Dibromofluoromethane	24600	0	25000		98.4	79.5	121				
Surr: Toluene-d8	25070	0	25000		100	77	117				

Sample ID: **1406371-005AMSD** Client ID: Units: **ug/L** Prep Date: **06/06/2014** Run No: **269373**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192172** Analysis Date: **06/07/2014** Seq No: **5682317**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	18590	2500	25000		74.3	60.2	159	19600	5.29	19.2	
Trichloroethene	24580	2500	25000		98.3	70.1	144	25000	1.69	20	
Surr: 4-Bromofluorobenzene	23260	0	25000		93.0	66.2	120	23930	0	0	
Surr: Dibromofluoromethane	24560	0	25000		98.2	79.5	121	24600	0	0	
Surr: Toluene-d8	25440	0	25000		102	77	117	25070	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192177

Sample ID: **MB-192177**	Client ID:			Units: **mg/L**	Prep Date: **06/10/2014**	Run No: **269582**
SampleType: **MBLK**	TestCode: **DIESEL RANGE ORGANICS SW8015C**			BatchID: **192177**	Analysis Date: **06/10/2014**	Seq No: **5686949**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	BRL	0.20									
Surr: Dioctylphthalate	0.07054	0	0.1000		70.5	43.6	128				

Sample ID: **LCS-192177**	Client ID:			Units: **mg/L**	Prep Date: **06/10/2014**	Run No: **269594**
SampleType: **LCS**	TestCode: **DIESEL RANGE ORGANICS SW8015C**			BatchID: **192177**	Analysis Date: **06/11/2014**	Seq No: **5687296**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.7070	0.20	1.000		70.7	55.7	117				
Surr: Dioctylphthalate	0.09563	0	0.1000		95.6	43.6	128				

Sample ID: **1406579-016AMS**	Client ID: **MW-10**			Units: **mg/L**	Prep Date: **06/10/2014**	Run No: **269582**
SampleType: **MS**	TestCode: **DIESEL RANGE ORGANICS SW8015C**			BatchID: **192177**	Analysis Date: **06/10/2014**	Seq No: **5686951**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.7604	0.20	1.000	0.1511	60.9	39.9	120				
Surr: Dioctylphthalate	0.08639	0	0.1000		86.4	43.6	128				

Sample ID: **1406579-016AMSD**	Client ID: **MW-10**			Units: **mg/L**	Prep Date: **06/10/2014**	Run No: **269582**
SampleType: **MSD**	TestCode: **DIESEL RANGE ORGANICS SW8015C**			BatchID: **192177**	Analysis Date: **06/10/2014**	Seq No: **5686952**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.7192	0.20	1.000	0.1511	56.8	39.9	120	0.7604	5.57	35.1	
Surr: Dioctylphthalate	0.08231	0	0.1000		82.3	43.6	128	0.08639	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192179

Sample ID: **MB-192179** Client ID: Units: **ug/L** Prep Date: **06/09/2014** Run No: **269377**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192179** Analysis Date: **06/09/2014** Seq No: **5683177**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Chloroethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	44.73	0	50.00		89.5	66.2	120				
Surr: Dibromofluoromethane	48.42	0	50.00		96.8	79.5	121				
Surr: Toluene-d8	49.21	0	50.00		98.4	77	117				

Sample ID: **LCS-192179** Client ID: Units: **ug/L** Prep Date: **06/09/2014** Run No: **269377**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **192179** Analysis Date: **06/09/2014** Seq No: **5682881**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	43.07	5.0	50.00		86.1	63.1	140				
Trichloroethene	53.37	5.0	50.00		107	71.2	135				
Surr: 4-Bromofluorobenzene	47.11	0	50.00		94.2	66.2	120				
Surr: Dibromofluoromethane	49.44	0	50.00		98.9	79.5	121				
Surr: Toluene-d8	49.82	0	50.00		99.6	77	117				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192179

Sample ID: **1406579-001AMS**	Client ID: **MW-20D**	Units: **ug/L**	Prep Date: **06/09/2014**	Run No: **269377**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **192179**	Analysis Date: **06/09/2014**	Seq No: **5684319**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	37.82	5.0	50.00		75.6	60.2	159				
Trichloroethene	52.33	5.0	50.00		105	70.1	144				
Surr: 4-Bromofluorobenzene	46.67	0	50.00		93.3	66.2	120				
Surr: Dibromofluoromethane	49.10	0	50.00		98.2	79.5	121				
Surr: Toluene-d8	50.01	0	50.00		100	77	117				

Sample ID: **1406579-001AMSD**	Client ID: **MW-20D**	Units: **ug/L**	Prep Date: **06/09/2014**	Run No: **269377**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **192179**	Analysis Date: **06/09/2014**	Seq No: **5684321**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	37.24	5.0	50.00		74.5	60.2	159	37.82	1.55	19.2	
Trichloroethene	51.53	5.0	50.00		103	70.1	144	52.33	1.54	20	
Surr: 4-Bromofluorobenzene	46.98	0	50.00		94.0	66.2	120	46.67	0	0	
Surr: Dibromofluoromethane	49.03	0	50.00		98.1	79.5	121	49.10	0	0	
Surr: Toluene-d8	49.58	0	50.00		99.2	77	117	50.01	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192264

Sample ID: **MB-192264** Client ID: Units: **ug/L** Prep Date: **06/11/2014** Run No: **269686**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **192264** Analysis Date: **06/11/2014** Seq No: **5689175**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9									
Ethylene	BRL	7									
Methane	BRL	4									

Sample ID: **LCS-192264** Client ID: Units: **ug/L** Prep Date: **06/11/2014** Run No: **269686**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **192264** Analysis Date: **06/11/2014** Seq No: **5689183**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	113.3	9	200.0		56.6	41.6	115				
Ethylene	74.17	7	200.0		37.1	26.9	115				
Methane	123.9	4	200.0		61.9	45.2	115				

Sample ID: **LCSD-192264** Client ID: Units: **ug/L** Prep Date: **06/11/2014** Run No: **269686**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **192264** Analysis Date: **06/11/2014** Seq No: **5689185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	100.1	9	200.0		50.0	41.6	115	113.3	12.4	20	
Ethylene	65.80	7	200.0		32.9	26.9	115	74.17	12.0	20	
Methane	111.5	4	200.0		55.7	45.2	115	123.9	10.6	20	

Sample ID: **1406579-001BMS** Client ID: **MW-20D** Units: **ug/L** Prep Date: **06/11/2014** Run No: **269686**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **192264** Analysis Date: **06/11/2014** Seq No: **5689255**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	92.77	9	200.0		46.4	40.1	115				
Ethylene	62.33	7	200.0		31.2	24.5	115				
Methane	100.4	4	200.0		50.2	41.1	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192264

Sample ID: **1406579-001BMSD** Client ID: **MW-20D** Units: **ug/L** Prep Date: **06/11/2014** Run No: **269686**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **192264** Analysis Date: **06/11/2014** Seq No: **5689254**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	90.97	9	200.0		45.5	40.1	115	92.77	1.96	20	
Ethylene	61.32	7	200.0		30.7	24.5	115	62.33	1.64	20	
Methane	97.81	4	200.0		48.9	41.1	115	100.4	2.57	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192415

Sample ID: **MB-192415** Client ID: Units: **ug/L** Prep Date: **06/13/2014** Run No: **269913**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **192415** Analysis Date: **06/16/2014** Seq No: **5694516**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3982	0	0.5000		79.6	17.1	126				
Surr: Tetrachloro-m-xylene	0.3439	0	0.5000		68.8	21	129				

Sample ID: **LCS-192415** Client ID: Units: **ug/L** Prep Date: **06/13/2014** Run No: **269913**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **192415** Analysis Date: **06/16/2014** Seq No: **5694518**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.290	0.50	5.000		85.8	55.1	115				
Aroclor 1260	4.726	0.50	5.000		94.5	60.9	116				
Surr: Decachlorobiphenyl	0.4261	0	0.5000		85.2	17.1	126				
Surr: Tetrachloro-m-xylene	0.3776	0	0.5000		75.5	21	129				

Sample ID: **1406622-002BMS** Client ID: Units: **ug/L** Prep Date: **06/13/2014** Run No: **269913**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **192415** Analysis Date: **06/16/2014** Seq No: **5694525**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.347	0.50	5.000		86.9	36.7	130				
Aroclor 1260	4.534	0.50	5.000		90.7	35.7	127				
Surr: Decachlorobiphenyl	0.4188	0	0.5000		83.8	17.1	126				
Surr: Tetrachloro-m-xylene	0.3556	0	0.5000		71.1	21	129				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: STI Swainsboro GA
Workorder: 1406579

ANALYTICAL QC SUMMARY REPORT

BatchID: 192415

Sample ID: **1406622-002BMSD** Client ID:
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/L** Prep Date: **06/13/2014** Run No: **269913**
BatchID: **192415** Analysis Date: **06/16/2014** Seq No: **5694528**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.294	0.50	5.000		85.9	36.7	130	4.347	1.22	35.2	
Aroclor 1260	4.232	0.50	5.000		84.6	35.7	127	4.534	6.89	30.4	
Surr: Decachlorobiphenyl	0.4023	0	0.5000		80.5	17.1	126	0.4188	0	0	
Surr: Tetrachloro-m-xylene	0.3857	0	0.5000		77.1	21	129	0.3556	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX B

WELL PURGING/GROUNDWATER SAMPLING LOGS

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-20D
WELL MATERIAL: PVC
SAMPLE METHOD: Peristaltic Pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1015
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 6.75 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 34.45
WATER COLUMN HEIGHT: 27.7 x 0.163 x 3 =
PURGE VOLUME: 3 well volumes = 13.5 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1030	-	2.79	221.7	4.71	0.077	24.36	9.05	150 ml ( )	7.00
1036	0.25	1.37	220.4	4.65	0.064	24.60	8.86	150 ml	8.25
1042	0.50	1.27	219.6	4.65	0.064	24.67	9.17	150 ml	8.30
1051	0.75	1.58	221.9	4.61	0.052	24.86	8.71	100 ml	8.32
1100	1.00	1.95	227.6	4.56	0.050	24.72	8.48	100 ml	8.33
1109	1.25	2.00	230.8	4.55	0.049	25.01	8.31	100 ml	8.33
1118	1.50	~~3.27~~	233.7	4.56	0.049	24.63	9.59	100 ml	8.34
1127	1.75	1.90	229.3	4.55	0.048	23.57	8.51	100 ml	8.35
1130	Sample time MW-20D								

NOTES: Used dedicated tubing in well. MW-20D Sample collected using "soda straw" method.

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1130

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/vial	2	HCl	8260	STD VOCs
40ml/vial	2	HCl	RSK 175	GASES

GENERAL INFORMATION		
WEATHER:	Cloudy Hot	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: Mark A.		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-12
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTACTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.62 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 7.05
WATER COLUMN HEIGHT: 3.43 3.43 x .17 = 0.58 x 3 = 1.74
PURGE VOLUME: 1.74
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1105	0.25	0.91	86.7	3.57	0.046	19.87	7.86	200 ( )	4.22
1110	0.5	1.06	68.6	3.01	0.049	20.05	6.97		
1115	0.75	0.92	61.3	2.96	0.050	20.11	7.37		
1120	1.0	0.86	43.2	2.88	0.045	20.13	5.54		
1125	1.25	0.74	47.9	2.88	0.046	20.15	5.01		
1130	1.50	0.79	55.0	2.89	0.043	20.18	4.83		
1135	1.75	0.84	52.7	2.91	0.041	20.09	4.66		
1140	2.0	0.90	53.4	2.93	0.041	20.11	4.52		
1145	Collect Sample								

NOTES:

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1145

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ML VIAL	2	HCL	8260B	VOC LIST
40ML VIAL	2	HCL	RSK 175	GASES

GENERAL INFORMATION		
WEATHER:	HOT - HUMID - Some Clouds	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: EVER GUILLEN		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-15
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 6.33 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 9.78
WATER COLUMN HEIGHT: 3.45 X0.17 = 0.58X3= 1.75
PURGE VOLUME: 1.75
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1235	0.25	0.72	-44.9	5.78	0.111	23.98	12.43	200 ( )	6.59
1240	0.5	0.55	-35.7	5.75	0.108	24.08	6.79	↓	↓
1245	0.75	0.58	-45.9	5.75	0.112	24.25	7.69		
1250	1.0	0.49	-38.9	5.81	0.117	24.40	4.47		
1255	1.25	0.43	-42.4	5.89	0.130	24.29	4.48		
1300	1.5	0.40	-43.9	5.83	0.135	24.10	3.96		
1305	1.75	0.38	-41.7	5.84	0.136	24.38	3.77		
1310	Collect	Sample							

NOTES:

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1310

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ML VIAL	2	HCL	8260B	VOC LIST
40ML VIAL	2	HCL	RSK175	Gases

GENERAL INFORMATION		
WEATHER:	HOT - HUMID - CLOUDY	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: EVER GUILLEN		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-20
WELL MATERIAL: PVC
SAMPLE METHOD: peristaltic pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1214
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 5.04 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 16.30
WATER COLUMN HEIGHT: 11.26 x 0.163 x 3 =
PURGE VOLUME: 3 well volumes = 5.5 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1225	—	3.16	3.7	5.76	0.374	23.21	5.46	200 ( )	5.10
1235	.50	2.89	19.0	5.79	0.370	23.73	4.67	200	5.09
1245	1.00	2.25	4.8	5.75	0.355	24.17	3.43	200	5.09
1255	1.50	1.61	18.0	5.77	0.333	23.94	2.16	200	5.09
1305	2.00	1.44	16.2	5.77	0.329	23.71	1.34	200	5.09
1315	2.50	1.38	17.3	5.77	0.328	24.10	1.27	200	5.09
1317	Sample	time	MW-20						

NOTES: used dedicated tubing in well. Sample collected using "soda straw" method.

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1317

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml/vial	2	HCl	8260	Site VOCs
40ml/vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION		
WEATHER:	Cloudy Hot Humid	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: Mark A.		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-9R
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTACTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 2.79 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 11.56
WATER COLUMN HEIGHT: 8.82 X.17=1.49x3=4.49
PURGE VOLUME: 4.49
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1355	0.25	0.45	-21.1	5.98	0.290	24.44	29.4	200 ( )	3.25
1400	0.5	0.33	-14.7	5.78	0.298	25.07	15.1		3.25
1405	0.75	0.74	-26.2	5.89	0.304	25.68	19.6		
1410	1.0	0.42	-31.7	6.13	0.307	25.71	14.2		
1415	1.25	0.40	-34.1	6.14	0.309	25.56	17.7		
1420	1.50	0.39	-29.4	6.10	0.309	25.62	15.07		
1425	1.75	0.38	-26.4	6.05	0.313	25.73	13.12		
1430	2.0	0.36	-26.9	6.04	0.315	25.85	11.08		
1435	2.25	0.37	-27.8	6.05	0.316	26.07	8.07		
1440	Collect Sample								

NOTES:

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1440

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ML VIAL	2	HCL	8260B	VOC LIST
40 ML VIAL	2	HCL	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	HOT-HUMID - Cloudy		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	EVER GUILLEN	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-8
WELL MATERIAL: PVC
SAMPLE METHOD: Peristaltic Pump

DUP./REP. OF: Dup-1 (time 1200)

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1330
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.06 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 11.35
WATER COLUMN HEIGHT: 8.29 X 0.163 X 3 =
PURGE VOLUME: 3 well volumes = 4.05 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1345	~	7.52	-73.9	6.19	0.441	22.68	39.2	200 ( )	3.25
1355	.50	0.90	-60.7	5.65	0.391	21.64	25.5	200	3.30
1405	1.00	0.99	-74.2	5.81	0.356	22.79	20.1	200	3.30
1415	1.50	0.95	-73.0	5.82	0.355	22.82	11.95	200	3.30
1425	2.00	0.94	-72.0	5.78	0.339	22.40	9.71	200	3.30
1435	2.50	0.90	-69.4	5.77	0.330	22.41	6.29	200	3.30
1445	3.00	0.90	-70.5	5.76	0.324	21.99	5.31	200	3.30
1455	3.50	0.87	-65.4	5.76	0.320	21.93	4.17	200	3.30
1505	4.00						3.84	200	3.30
1508	Sample time MW-8								

NOTES: used dedicated tubing in the well. Dup-1 taken at this location. ~~[illegible]~~ samples collected using "soda straw" method.

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1508

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml/vial	2	HCl	8260	5 to VOCs
40ml/vial	2	HCl	RSK175	Gases

GENERAL INFORMATION		
WEATHER:	Cloudy Hot humid	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: Mark A.		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-6
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.61 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 13.02
WATER COLUMN HEIGHT: 9.41 X.17 = 1.59 X 3 = 4.79
PURGE VOLUME: 4.79
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1550	0.25	2.21	-32.1	6.04	0.167	26.84	1328	200 ( )	3.84
1555	0.50	0.38	-7.6	5.24	0.158	26.53	126		3.91
1600	0.75	0.50	8.4	4.68	0.158	26.82	67.7		3.93
1605	1.0	0.45	1.0	4.70	0.160	26.80	44.3		3.96
1610	1.25	0.39	-14.5	4.89	0.156	27.38	33.6		
1615	1.5	0.33	-18.7	4.91	0.151	27.47	21.9		
1620	1.75	0.31	-24.8	5.00	0.147	27.54	12.5		
1625	2.0	0.30	-22.4	4.91	0.145	27.15	10.95		
1630	2.25	0.28	-23.8	4.93	0.146	27.11	8.47		
1635	Collect Sample								

NOTES:

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1635

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ML VIAL	2	HCL	8260B	VOC LIST
40ML VIAL	2	HCL	RSK175	GASES

GENERAL INFORMATION			
WEATHER:	Hot- Cloudy- Humid		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Ever Guillen	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-18
WELL MATERIAL: PVC
SAMPLE METHOD: Peristaltic Pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1520
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.01 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 14.45
WATER COLUMN HEIGHT: 11.44 X 0.163 X 3 =
PURGE VOLUME: 3 well volumes = 5.59 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1530	-	2.00	-34.2	5.78	0.284	24.74	7.51	300 ( )	3.20
1536	.50	0.76	-48.6	5.73	0.284	24.15	1.83	300	3.31
1542	1.00	0.85	-22.5	5.73	0.282	24.45	1.84	300	3.40
1548	1.50	0.96	-16.9	5.68	0.261	24.51	1.71	300	3.45
1554	2.00	1.01	-18.3	5.62	0.240	24.67	1.69	300	3.51
1600	2.50	0.93	-27.5	5.58	0.219	24.90	3.28	300	3.57
1606	3.00	0.82	-32.4	5.59	0.224	24.87	2.85	300	3.63
1612	3.50	0.80	-34.8	5.60	0.226	24.89	2.71	300	3.65
1618	4.00	0.75	-35.2	5.62	0.237	24.79	2.47	300	3.68
1624	4.50	0.74	-35.8	5.62	0.237	24.78	2.31	300	3.71
1630	5.00	0.71	-37.4	5.62	0.238	24.77	2.17	300	3.73
1636	5.50	0.73	-38.1	5.62	0.240	24.74	2.20	300	3.75
1639	5.75	0.72	-36.6	5.61	0.239	24.74	2.23	300	3.78

NOTES: Can not stabalize water level, will purge 3 well volumes before sampling. Used Dedicated tubing in well and ~~MW~~ Samples collected using "soda straw" method.

SAMPLE DATE: 6-3-14
SAMPLE TIME: 1642

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/VOA vial	2	HCl	8260	Bite VOCs
40 ml/vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Cloudy Humid Hot		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Mark A.	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-11
WELL MATERIAL: PVC
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 0900
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.95 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 7.70
WATER COLUMN HEIGHT: 3.75 X 0.163 X 3 =
PURGE VOLUME: 3 well volumes = 1.8 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 0910	—	0.58	57.1	5.25	0.065	20.82	36.2	200 ( )	4.05
0920	.50	0.50	65.4	5.23	0.059	21.12	35.9	200	4.05
0930	1.00	0.52	68.1	5.24	0.062	21.06	17.57	200	4.05
0940	1.50	0.58	106.7	5.27	0.057	21.08	12.53	200	4.05
0950	2.00	0.64	123.1	5.31	0.058	21.19	7.90	200	4.05
1000	2.50	0.67	129.7	5.32	0.061	21.35	7.60	200	4.05
1010	3.00	0.65	136.1	5.33	0.061	21.37	6.51	200	4.05
1013	Sample time (MW-11								

NOTES: used dedicated tubing in well and "soda straw" method was used to collect samples.

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1013

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/vial	2	HCl	8260	Site VOCs
40 ml/vial	2	HCl	RSK 175	

GENERAL INFORMATION			
WEATHER:	clear Sunny		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Mark A	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-4
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 2.54 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 14.75
WATER COLUMN HEIGHT: 12.21 X .17 = 2.07 X 3 = 6.22
PURGE VOLUME: 6.22
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 945	0.25	1.77	-29.3	5.59	0.491	24.47	9.28	400 ( )	2.89
950	0.5	1.07	-23.0	5.36	0.494	25.49	3.64	200	3.06
955	0.75	1.63	-29.6	5.54	0.492	25.81	3.0	↓	↓
1000	1.0	1.62	-27.0	5.52	0.488	25.06	2.56		
1005	1.25	0.72	-24.6	5.65	0.483	26.41	1.76		
1015	1.5	0.65	-31.2	5.70	0.479	26.77	1.13		
1020	1.75	0.73	-27.4	5.72	0.478	26.81	0.66		
1025	Collect Sample								

NOTES:

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1025

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ML VIAL	2	HCL	8260B	VOC LIST
40 ML VIAL	2	HCL	RSK 175	GASES

GENERAL INFORMATION		
WEATHER:	CLOUDY - HOT - HUMID	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: EVER GUILLEN		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-19
WELL MATERIAL: PVC
SAMPLE METHOD: peristaltic pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1029
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.49 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 16.66
WATER COLUMN HEIGHT: 13.17 X 0.163 X 3
PURGE VOLUME: 3 well volumes = 6.44 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1030	-	0.76	90.5	5.44	0.247	20.92	21.9	200 ( )	3.70
1040	.5	0.52	87.5	5.45	0.248	20.67	17.6	200	3.71
1050	1.00	0.55	95.0	5.28	0.247	20.51	11.4	200	3.71
1100	1.50	0.61	89.1	5.39	0.247	20.49	12.3	200	3.71
1110	2.00	0.61	87.9	5.43	0.250	20.78	10.20	200	3.71
1120	2.50	0.49	68.3	5.59	0.276	20.90	6.81	200	3.71
1130	3.00	0.40	24.7	5.72	0.326	20.76	2.59	200	3.71
1140	3.50	0.37	21.1	5.73	0.330	20.85	3.00	200	3.71
1150	4.00	0.35	16.6	5.73	0.338	20.79	3.16	200	3.71
1153	Sample	time	MW-19						

NOTES: Samples collected using "soda straw" method. Dedicated tubing was used at the well.

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1153

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml/vial	2	HCl	8260	Site VOCs
40ml/vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Sunny Clear Hot		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Mark A.	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-21
WELL MATERIAL: PVC
SAMPLE METHOD:_____

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 4.93 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 17.55
WATER COLUMN HEIGHT:_____
PURGE VOLUME:_____
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1125	0.25	0.88	-3.5	5.47	0.418	21.05	31.5	( )	5.08
1130	0.5	0.74	14.3	4.79	0.418	20.91	14.0		
1135	0.75	0.62	14.6	4.60	0.419	21.15	13.2		
1140	1.0	6.44	17.4	4.66	0.421	21.36	11.5		
1145	1.25	0.40	13.3	4.73	0.421	21.57	21.5		
1150	1.5	0.38	9.1	4.78	0.422	21.65	18.4		
1155	1.75	0.37	6.6	4.84	0.423	21.63	16.5		
1200	2.0	0.35	-2.3	4.97	0.424	21.67	13.6		
1205	2.25	0.33	-4.4	5.00	0.424	21.79	10.2		
1210	2.5	0.32	-6.7	5.04	0.424	21.62	6.37		
1215	Collect	Sample							

NOTES:

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1215

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ML VIAL	2	HCL	8260B	VOC LIST
40 ML VIAL	2	HCL	RSK175	GASES

GENERAL INFORMATION		
WEATHER:	CLOUDY - HOT - HUMID	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-5
WELL MATERIAL: PVC
SAMPLE METHOD: peristaltic Pump

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1400
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 5.78 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 18.00
WATER COLUMN HEIGHT: 12.22 X 0.163 X 3
PURGE VOLUME: 3 well volumes = 5.98 gal
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1410	—	6.50	218.1	4.85	0.033	21.98	4.78	200 ( )	5.90
1420	.5	2.43	211.4	4.83	0.034	21.67	4.71	200	5.90
1430	1.00	1.54	202.8	4.82	0.035	21.39	5.06	200	5.90
1440	1.50	0.91	195.2	4.60	0.036	21.24	2.11	200	5.90
1450	2.00	0.69	181.7	4.70	0.037	21.20	0.36	200	5.90
1500	2.50	0.64	174.5	4.71	0.037	21.18	0.51	200	5.90
1505	2.75	0.59	169.7	4.71	0.037	21.21	1.38	200	5.90
1510	3.00	0.57	161.5	4.72	0.037	21.20	1.21	200	5.70
1512	Sample time MW-5								

NOTES:

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1512

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml/vial	3	HCl	8260	5 hp VOCs
40ml/vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Sunny few clouds Hot		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Mark A.	OBSERVER:	

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-7
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 3.53 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 9.80
WATER COLUMN HEIGHT: 6.27 X0.17= 1.06 X3= 3.19
PURGE VOLUME: 3.19
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1505	0.25	0.55	34.3	4.67	0.162	20.35	32.9	200 ( )	4.13
1510	0.5	0.61	41.0	4.34	0.160	20.72	23.3		
1515	0.75	0.64	39.1	4.30	0.159	20.83	27.3		
1520	1.0	0.37	15.3	4.54	0.154	20.82	19.1		
1525	1.25	0.31	6.9	4.66	0.156	20.81	16.4		
1530	1.5	0.30	6.2	4.66	0.156	20.80	13.1		
1535	1.75	0.32	5.8	4.66	0.157	20.81	10.2		
1540	2.0	0.32	4.9	4.67	0.157	20.83	7.63		
1545	Collect Sample								

NOTES:

SAMPLE DATE: 6-4-14
SAMPLE TIME: 1545

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ML VIAL	2	HCL	8260B	VOC LIST
40 ML VIAL	2	HCL	RSK175	GASES

CLOUDY- HOT- HUMID GENERAL INFORMATION

WEATHER:	
SHIPPED VIA:	Delivered to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: EVER GUILLEN	OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: MW-10
WELL MATERIAL: PVC
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at:_____
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: 2"
DEPTH TO WATER: 5.46 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 10.0
WATER COLUMN HEIGHT: 4.54 x.17 = 0.77 x 3 = 2.31
PURGE VOLUME: 2.31
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 920	0.25	1.49	7.2	5.17	0.073	19.77	39.0	200 ( )	5.80
925	0.5	0.45	49.7	3.87	0.070	19.53	31.9		
930	0.75	0.44	60.6	3.54	0.065	19.72	25.6		
935	1.0	0.47	61.6	3.45	0.062	19.83	17.9		
940	1.25	0.51	60.3	3.41	0.060	19.87	19.2		
945	1.50	0.54	59.1	3.39	0.059	19.92	17.4		
950	1.75	0.57	55.9	3.40	0.057	19.86	16.1		
955	2.0	0.62	52.3	3.40	0.056	19.83	14.5		
1000	2.25	0.61	46.4	3.40	0.054	19.77	12.4		
1005	2.5	0.55	42.9	3.39	0.053	19.75	11.2		
1010	2.75	0.51	39.9	3.38	0.053	19.76	10.24		
1015	3.0	0.49	38.5	3.38	0.053	19.78	7.77		
1020	Collect Sample								

NOTES: Some Oil on the INTERFACE PROBE when Gauging - None measured
YELLOW oily Residue on outside of Sampling TUBING @ end of Sampling

SAMPLE DATE: 6-5-14
SAMPLE TIME: 1020

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
1-L AMBER	4	None		

GENERAL INFORMATION		
WEATHER:	CLOUDY - HOT - HUMID	
SHIPPED VIA:	Delivered to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER: EVER GUILLEN		OBSERVER:

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: SW-4
WELL MATERIAL: PVC
SAMPLE METHOD:_____

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1127
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: _____
DEPTH TO WATER:_____ GRAB (x) COMPOSITE ( )
TOTAL DEPTH:_____
WATER COLUMN HEIGHT:_____
PURGE VOLUME:_____
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1133	NA	4.51	52.8	4.76	0.069	22.83	9.72	NA ( )	NA

NOTES:

SAMPLE DATE: 6-5-14
SAMPLE TIME: 1133

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/vial	2	HCl	8260	STP VOCs

GENERAL INFORMATION			
WEATHER:	Sunny Clear Hot		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Brad G	OBSERVER:	Mark H.

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: SW-5
WELL MATERIAL: PVC
SAMPLE METHOD:_____

WELL DIAMETER: 2
DUP./REP. OF:_____
DEPTH TO WATER:_____ GRAB (x) COMPOSITE ( )
TOTAL DEPTH:_____
Top of Screened interval (btoc):_____
WATER COLUMN HEIGHT:_____
Screen length:_____
PURGE VOLUME:_____
Arrived at: 1140
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
Initial PID = _____
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
Bailing PID = _____
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1145		2.81	40.7	5.08	0.144	22.23	13.44	NA ( )	NA

NOTES:

SAMPLE DATE: 6-5-14
SAMPLE TIME: 1145

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/vial	2	HCl	8260	BTEX VOCs

GENERAL INFORMATION			
WEATHER:	Sunny Clear Hot		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	Eric G.	OBSERVER:	Mark A.

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: SW-2
WELL MATERIAL: PVC
SAMPLE METHOD:_____

DUP./REP. OF:_____

Top of Screened interval (btoc):_____
Screen length:_____
Arrived at: 1115
Initial PID = _____
Bailing PID = _____

WELL DIAMETER: _____
DEPTH TO WATER:_____ GRAB (x) COMPOSITE ( )
TOTAL DEPTH:_____
WATER COLUMN HEIGHT:_____
PURGE VOLUME:_____
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1120		3.52	32.2	5.40	0.070	22.53	10.41	( )	

NOTES:

SAMPLE DATE: 6-5-14
SAMPLE TIME: 1120

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml/Vial	2	HCl	8260	Stnd VOCs

GENERAL INFORMATION			
WEATHER:	Sunny Hot Clear		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	EMP 6	OBSERVER:	Mark A.

PROJECT NAME:
STI- Swainsboro, GA

FIELD SAMPLING REPORT

Project Number: 6125-08-0149

AMEC, E&I
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST QUARTER __2ND QUARTER __3RD QUARTER __4TH QUARTER
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: SW-6
WELL MATERIAL: PVC
SAMPLE METHOD:_____

WELL DIAMETER: _____
DUP./REP. OF:_____ DEPTH TO WATER:_____ GRAB (x) COMPOSITE ( )
TOTAL DEPTH:_____
Top of Screened interval (btoc):_____ WATER COLUMN HEIGHT:_____
Screen length:_____ PURGE VOLUME:_____
Arrived at: 1200 [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
Initial PID = _____ [0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
Bailing PID = _____ [1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1210		2.81	35.4	5.32	0.147	22.14	4.70	NA ( )	NA

NOTES:

SAMPLE DATE: 6-5-14
SAMPLE TIME: 1210

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml/VOA	2	HCl	8260	5 HP VOCs

GENERAL INFORMATION			
WEATHER:	Sunny Hot Clear		
SHIPPED VIA:	Delivered to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	[redacted]	OBSERVER:	Mark A.

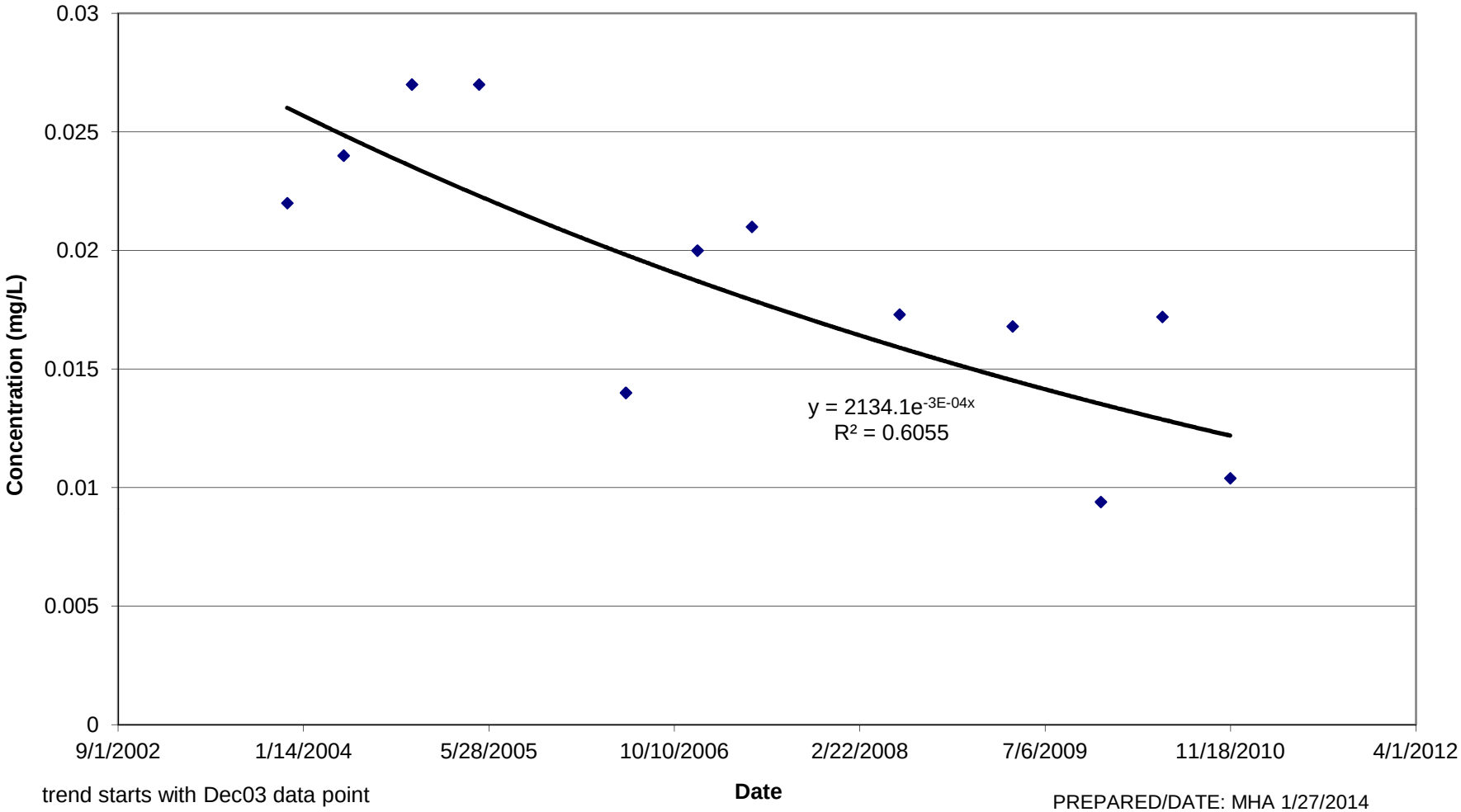
APPENDIX C

VOC CONCENTRATION TREND GRAPHS

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-3 Vinyl Chloride Concentration Versus Time Trend Plot



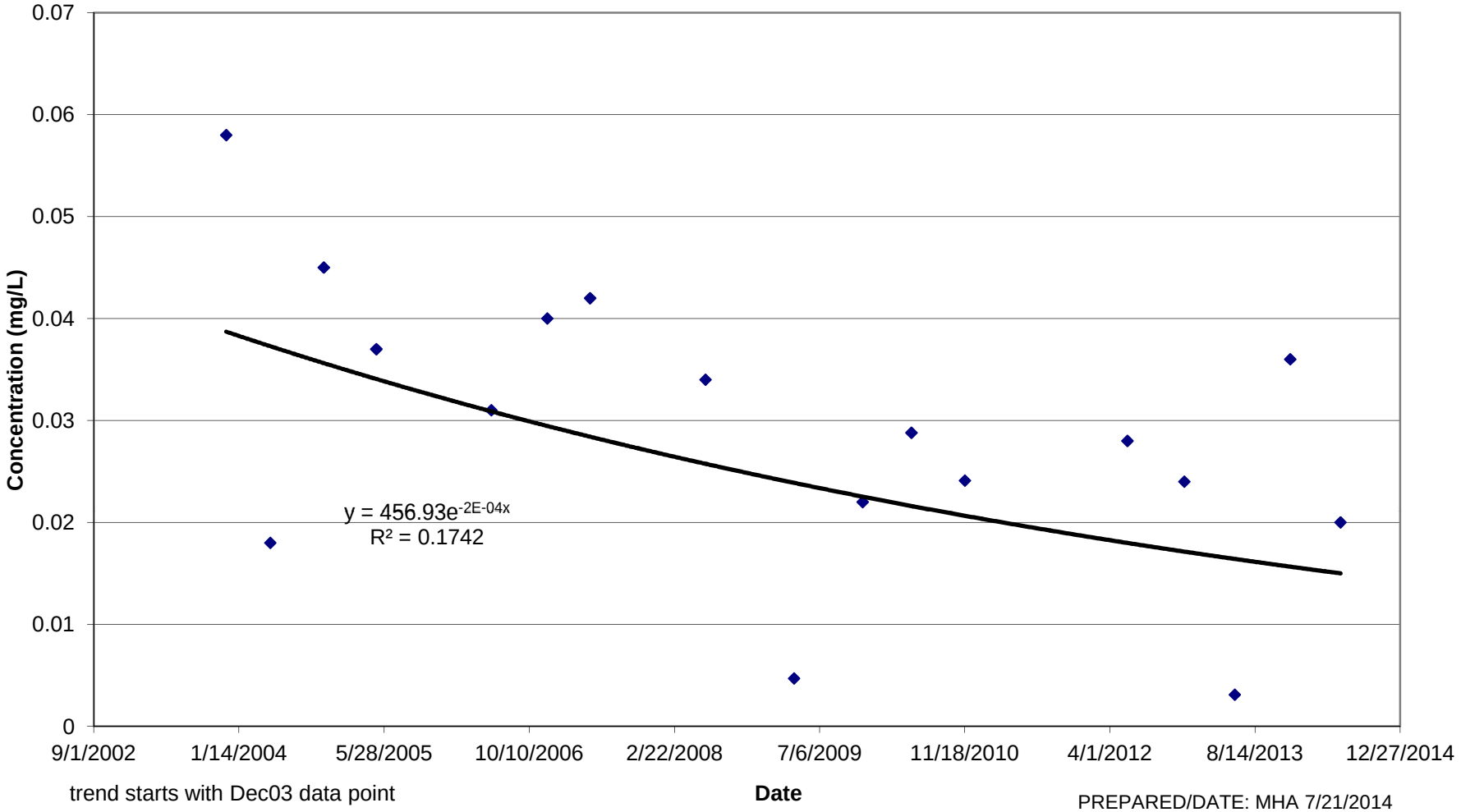
trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/4/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-4 Vinyl Chloride Concentration Versus Time Trend Plot

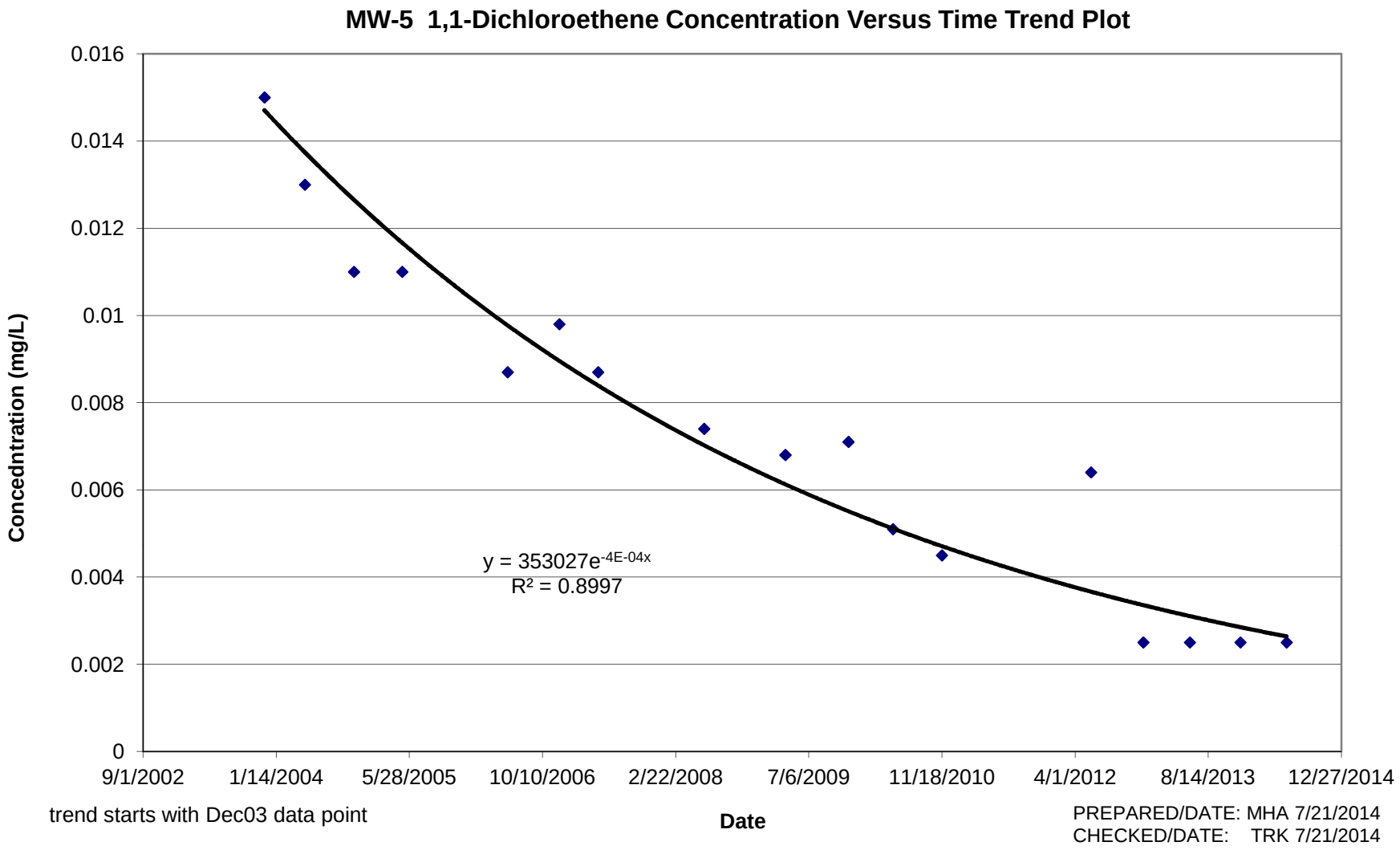


trend starts with Dec03 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014



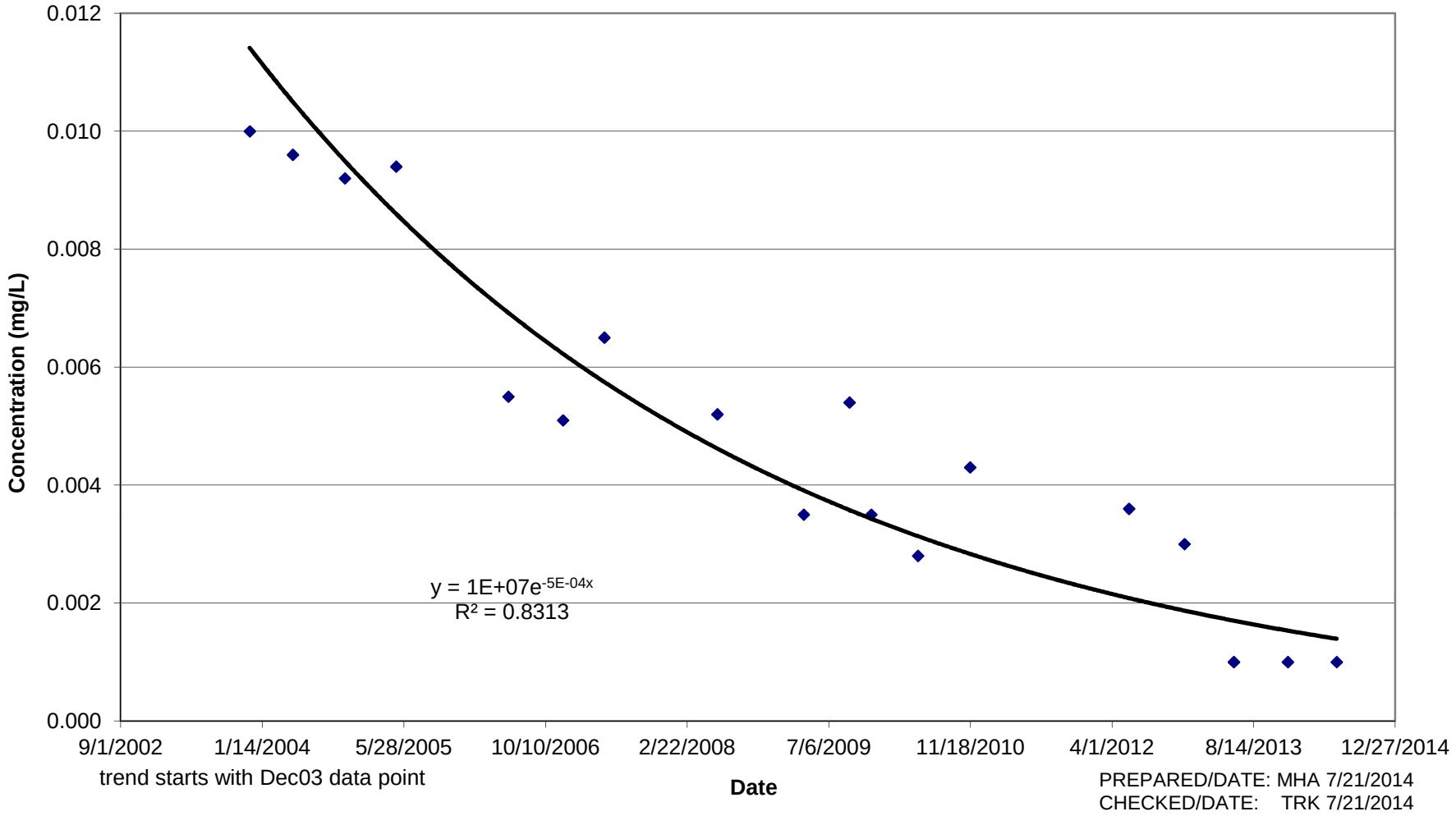
trend starts with Dec03 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-6 Vinyl Chloride Concentration Versus Time Trend Plot



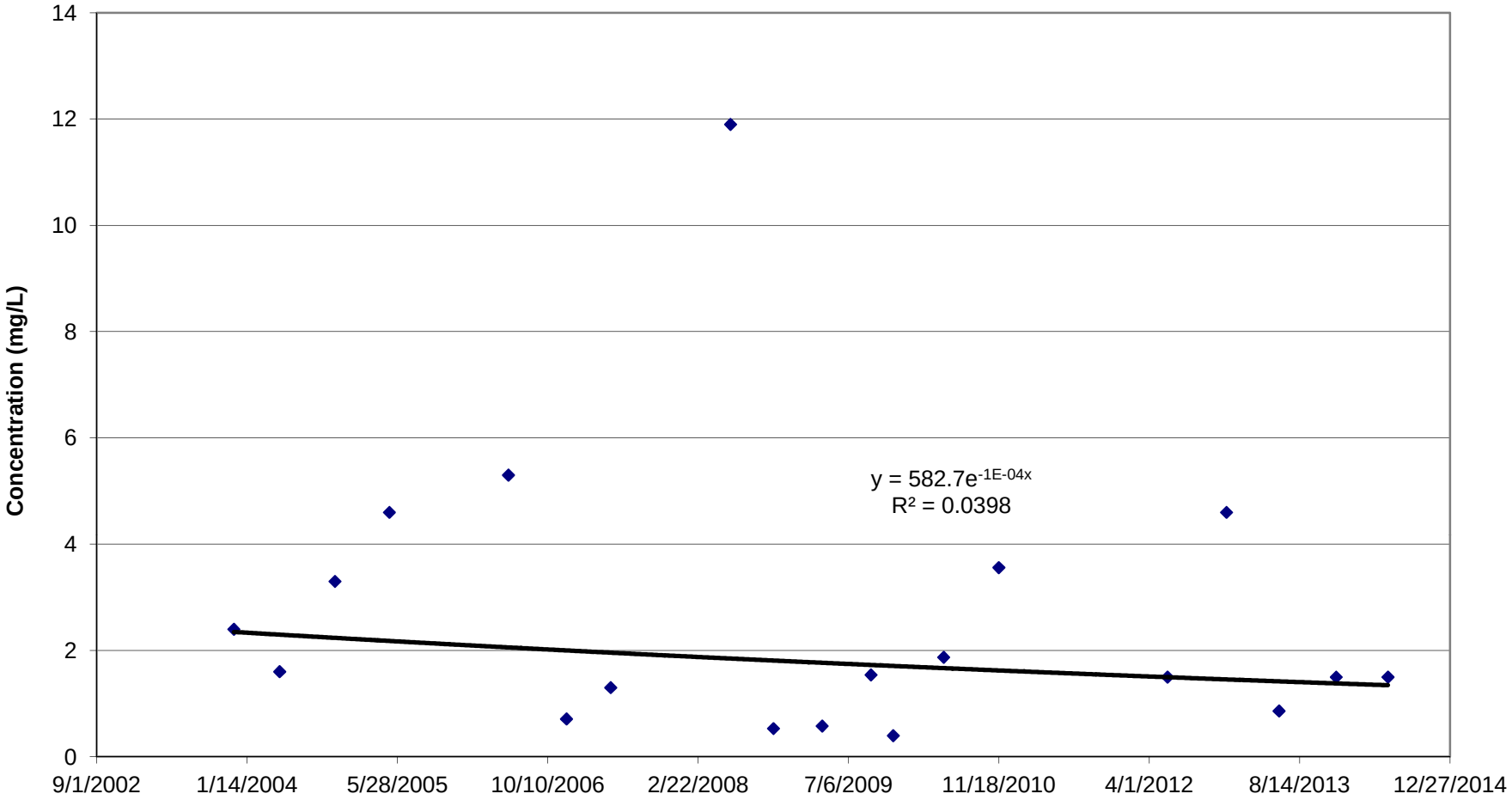
trend starts with Dec03 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

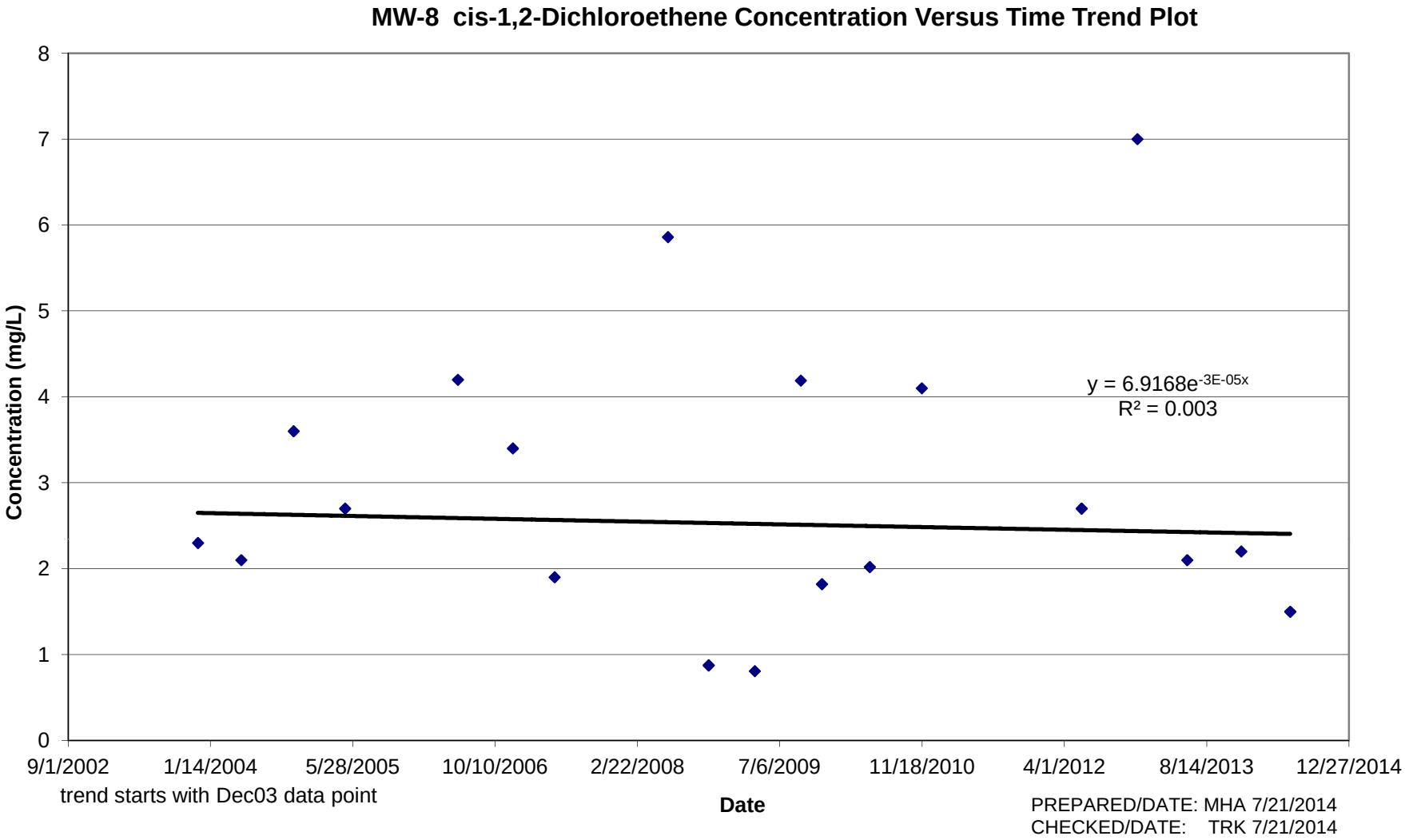
August 2014

MW-8 Trichloroethene Concentration Versus Time Trend Plot



trend starts with Dec03 data point

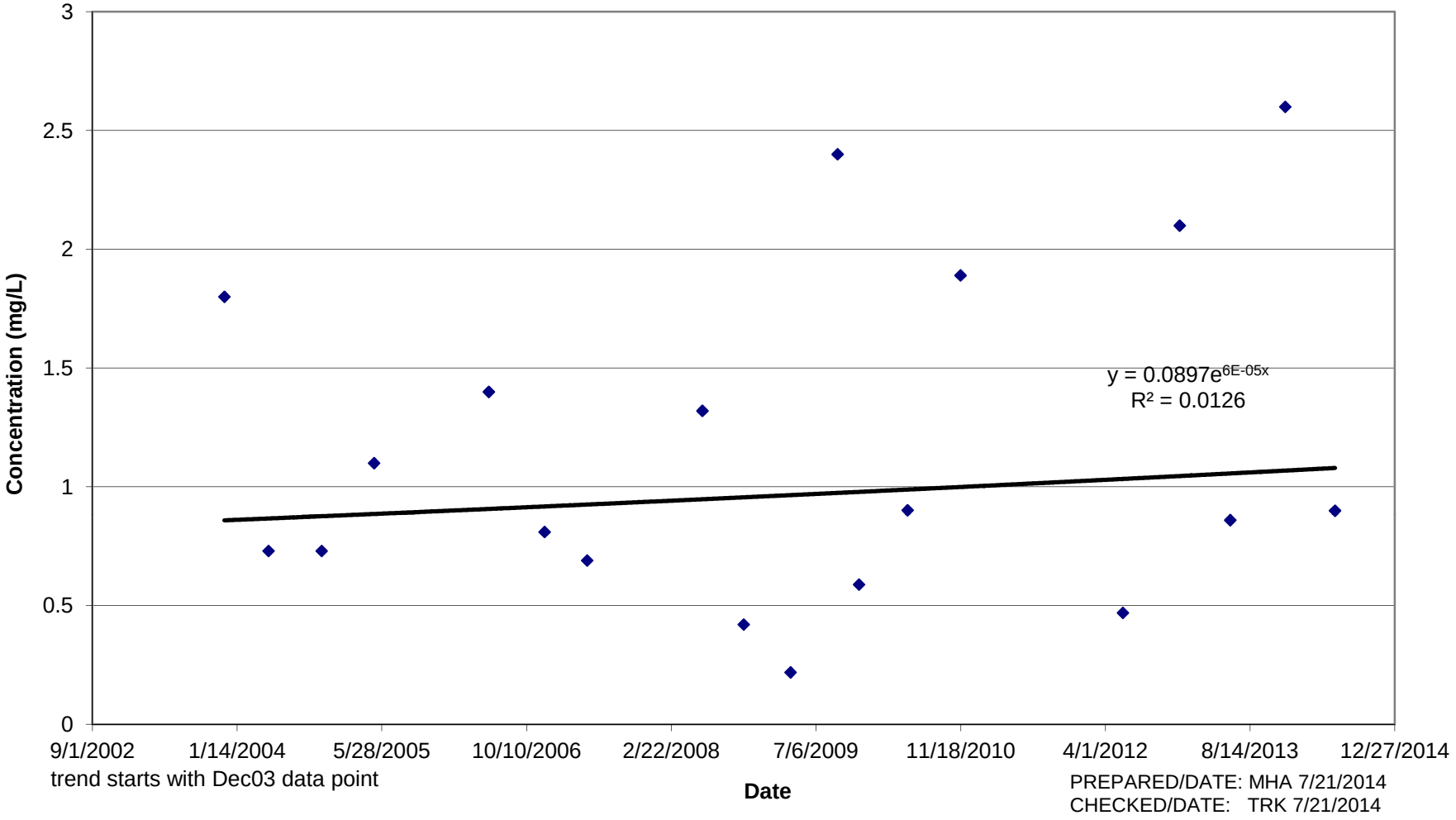
PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014


MW-8 cis-1,2-Dichloroethene Concentration Versus Time Trend Plot
Concentration (mg/L)
0
1
2
3
4
5
6
7
8
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
11/18/2010
4/1/2012
8/14/2013
12/27/2014
Date
y = 6.9168e-3E-05x
R² = 0.003
trend starts with Dec03 data point
PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-8 Vinyl Chloride Concentration Versus Time Trend Plot



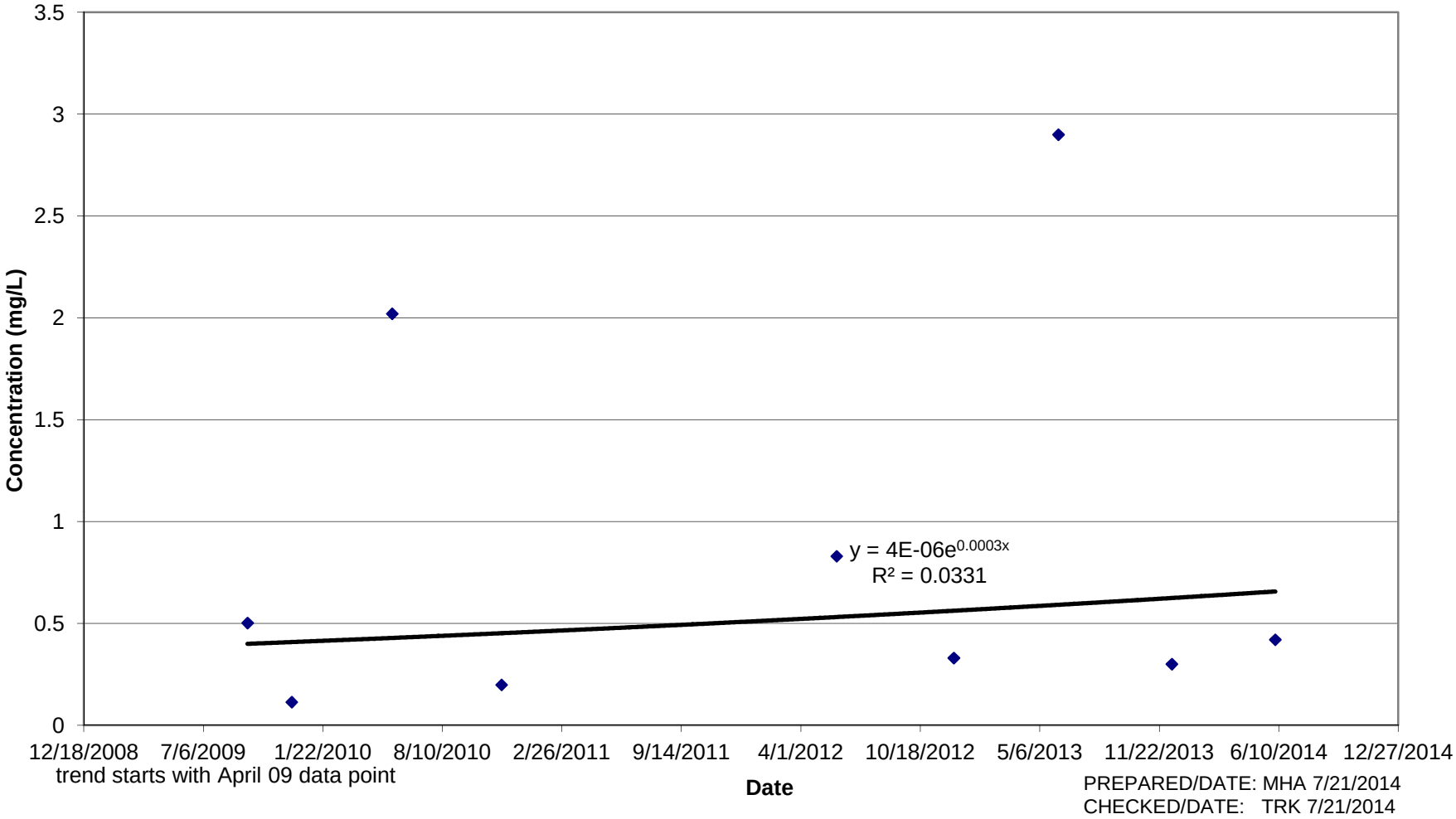
trend starts with Dec03 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-19 Vinyl Chloride Concentration Versus Time Trend Plot

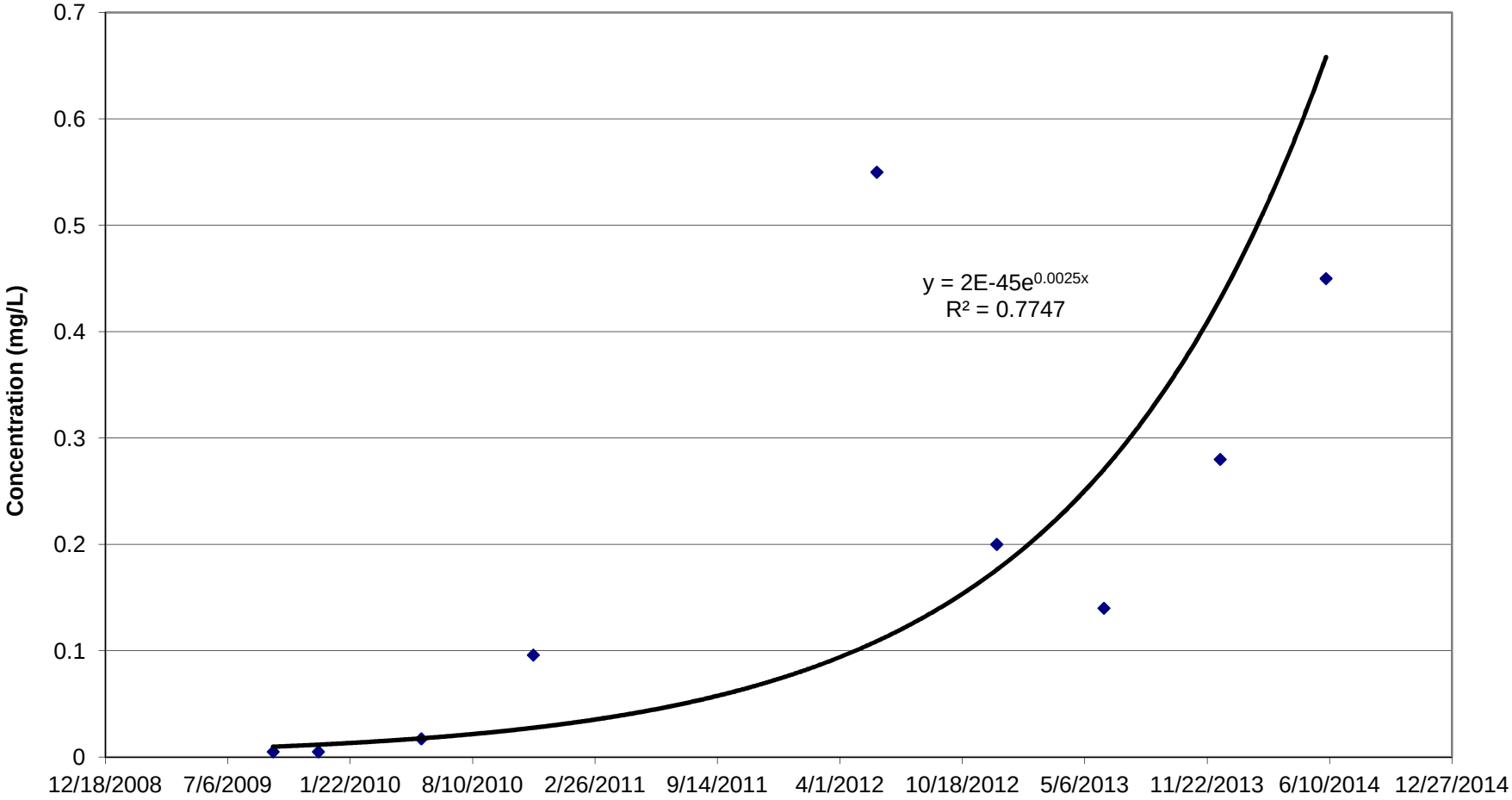


PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-19 Trichloroethene Concentration Versus Time Trend Plot



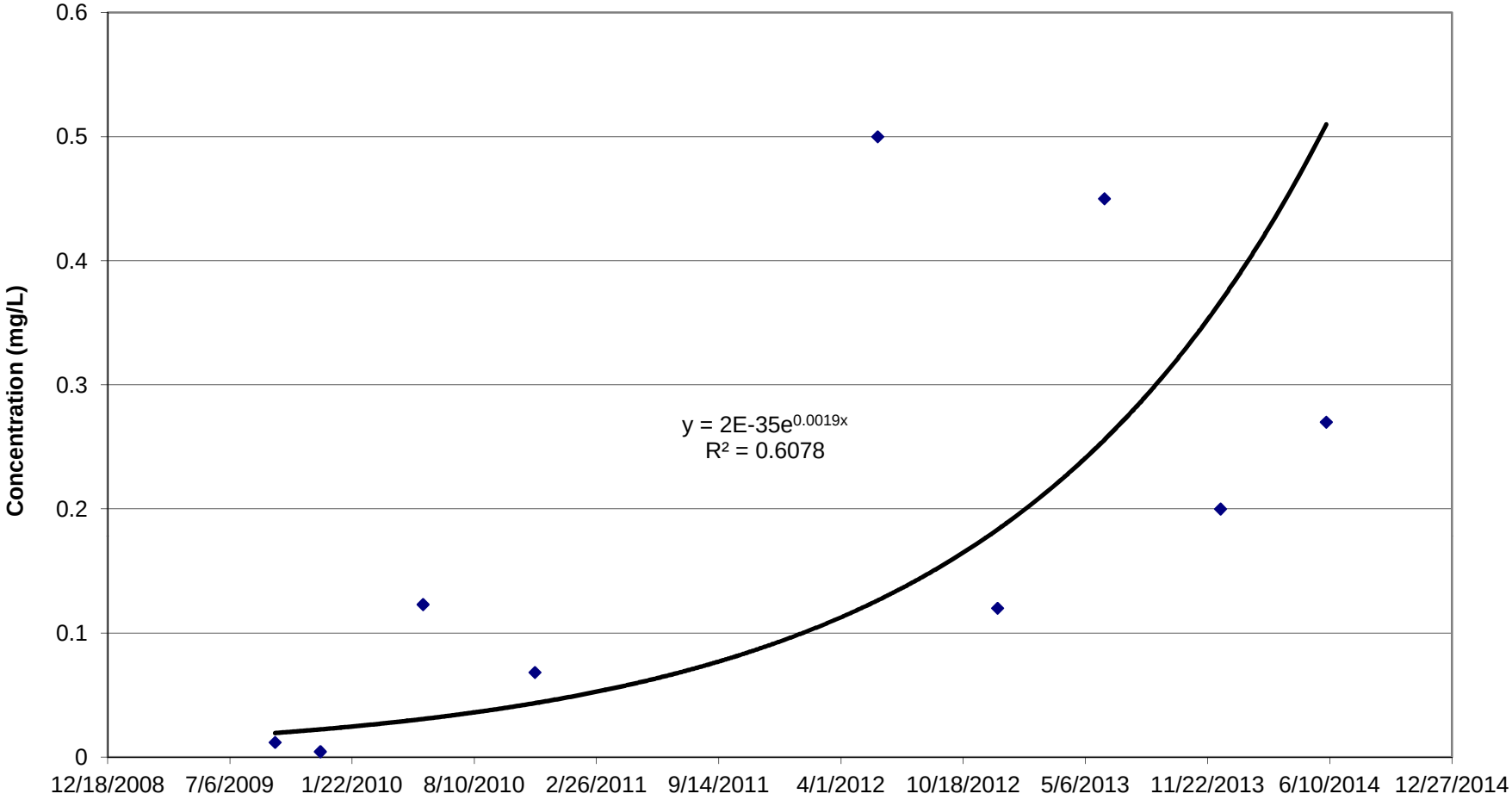
trend starts with September 09 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-19 1,1-Dichloroethene Concentration Versus Time Trend Plot



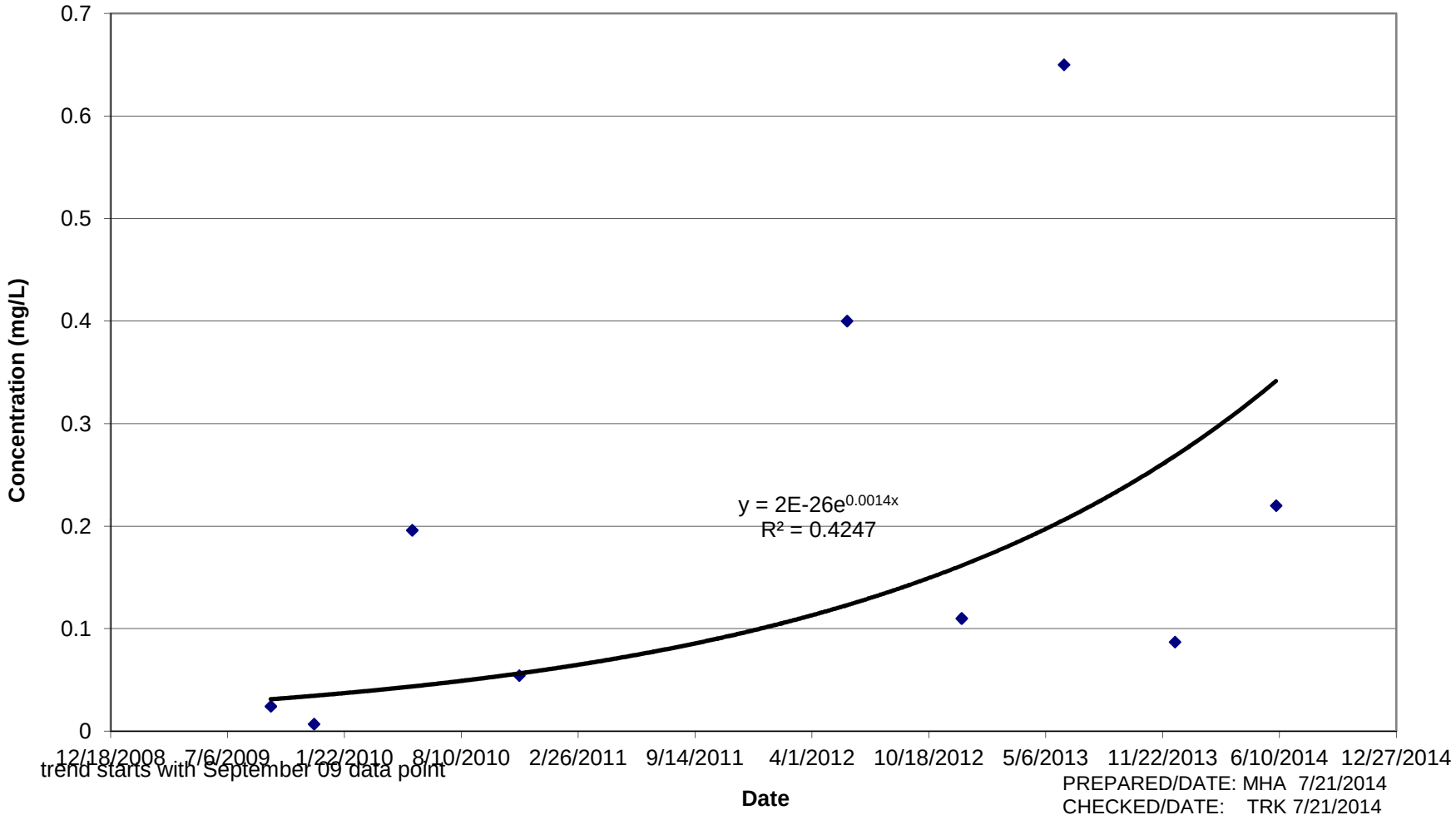
trend starts with September 09 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

STI Properties, Inc.
Swainsboro, GA

August 2014

MW-19 cis-1,2-Dichloroethene Concentration Versus Time Trend Plot



trend starts with September 09 data point

PREPARED/DATE: MHA 7/21/2014
CHECKED/DATE: TRK 7/21/2014

APPENDIX D

HVE EVENT DOCUMENTATION

227 Sandy Springs Place
Suite D-122
Atlanta, Georgia 30328-5918
Phone 404 256 0667
Fax 404 256 0668

July 17, 2014

Tanya Kinnard
AMEC
1075 Big Shanty Road, NW, Suite 100
Kennesaw, GA 30144

Subject: 24-Hour Multi-Phase Extraction Event
STI Properties, Inc.
162 East Meadowlake Parkway
Swainsboro, GA
Project No. GA71407
AMEC Project Name: STI Swainsboro GW Monitoring
AMEC Project No.: 6125080149.1402.6122
AMEC Work Order & PO No.: C012402429

Dear Ms. Kinnard:

Brown Remediation, Inc. is pleased to provide you with this report of our Multi-Phase Extraction (MPE) service conducted at the subject facility on July 8, 2014.

Site monitoring wells MW-8, MW-19, MW-3, MW-11, MW-18, MW-20, and MW-21 were gauged before the MPE event with an oil-water interface probe to determine the static depth to groundwater and the presence of dense non-aqueous phase liquid (DNAPL). Detectable levels of DNAPL were not observed in monitoring wells measured during the initial gauging event.

MW-8 and MW-19 were used as extraction wells during the MPE event. A drop tube was connected to the vacuum port of the MPE unit before lowering it below the static groundwater level in each extraction well. Vacuum was applied to the drop tube, thereby creating a vacuum influence, which was measured in adjacent monitoring wells MW-18 and MW-21.

Following the MPE event, all wells were again gauged to determine the new static depth to groundwater and the presence of DNAPL. The differences in water levels before and after the event were recorded. No DNAPL was detected in any of the wells measured.

Following is a summary of the site data recorded during the event.

MPE Event Gauging Data Summary								
Well	Before Event			Influence Vacuum	After Event			Change in
Number	DTP (ft)	DTW (ft)	Prod.(ft)	Time: 15:00	DTP (ft)	DTW (ft)	Prod.(ft)	Elevation (ft)
MW-8		3.79		3.5" Hg		9.60		-5.81
MW-19		4.12		2.5" Hg		10.80		-6.68
MW-3		3.00		0.00		3.32		-0.32
MW-11		4.47		0.00		4.62		-0.15
MW-18		3.52		+0.34" WC		3.75		-0.23
MW-20		5.40		0.00		5.50		-0.10
MW-21		5.54		+0.23" WC		5.62		-0.08

Calculated values for carbon, methane, and hydrocarbon recorded during the MPE event are presented below. In addition, the amount of recovered groundwater, propane consumption, and total MPE event time are noted.

Event Totals	
Total Carbon (lbs)	0.09
Total Methane (lbs)	0.00
Total Chlorinated Compounds (lbs)	181.17
Equiv. Chlorinated Compounds (gal.)	14.88
Total Liquid (gallons)	1250
Total Propane (gallons)	75.0
Total Event Time (hours)	24.0

Cumulative Totals	
Total Carbon (lbs)	0.09
Total Methane (lbs)	0.00
Total Chlorinated Compounds (lbs)	181.17
Equiv. Chlorinated Compounds (gal.)	14.88
Total Liquid (gallons)	1250
Total Propane (gallons)	75.0
Events	1

All extracted groundwater was transported to the local waste water treatment plant located adjacent to the facility.

We appreciate the opportunity to provide you with these services. Please do not hesitate to call if you have any questions.

Sincerely,

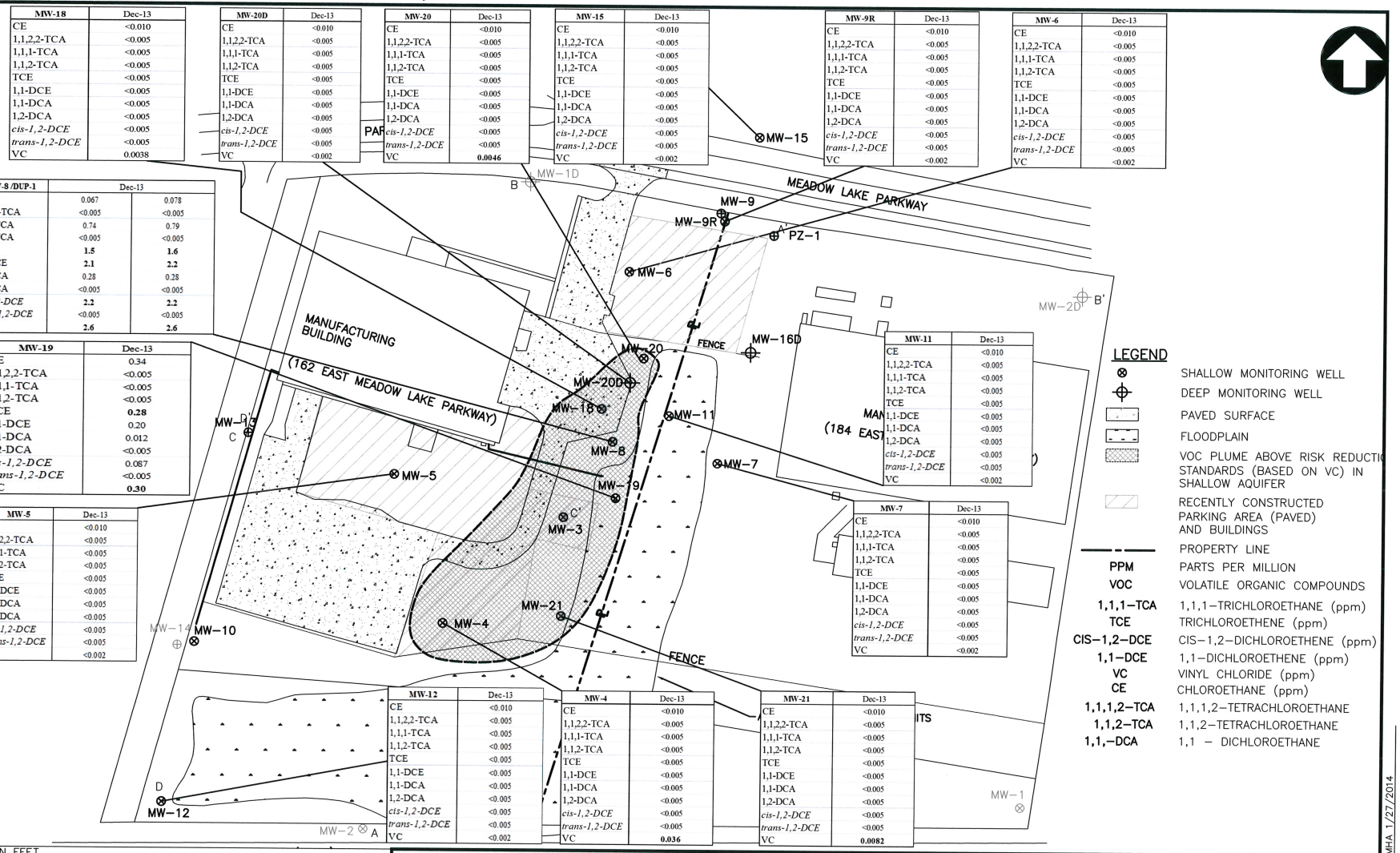
Brown Remediation, Inc.

Thomas Brown

Thomas Brown
Director of Operations

Attachments: Site Map
MPE Event Data Summary
Field Data Sheet
Flow and Hydrocarbon Removal Rates
MPE Technology Description and Calculations

J:\STI\DEC 2013\FIG 5–VOC CONCEN IN GW–DEC 2013.dwg – Layout1 01/28/2014 9:14am Tonya.Gladstone



MW-18	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	0.0038

MW-20D	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-20	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.0046**

MW-15	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-9R	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-6	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-8 /DUP-1	Dec-13	
CE	0.067	0.078
1,1,2,2-TCA	<0.005	<0.005
1,1,1-TCA	0.74	0.79
1,1,2-TCA	<0.005	<0.005
TCE	**1.5**	**1.6**
1,1-DCE	**2.1**	**2.2**
1,1-DCA	0.28	0.28
1,2-DCA	<0.005	<0.005
cis-1,2-DCE	**2.2**	**2.2**
trans-1,2-DCE	<0.005	<0.005
VC	**2.6**	**2.6**

MW-19	Dec-13
CE	0.34
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	**0.28**
1,1-DCE	0.20
1,1-DCA	0.012
1,2-DCA	<0.005
cis-1,2-DCE	0.087
trans-1,2-DCE	<0.005
VC	**0.30**

MW-11	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-5	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-7	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-12	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-4	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.036**

MW-21	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.0082**

LEGEND

- ⊗ SHALLOW MONITORING WELL
- ⊕ DEEP MONITORING WELL
- PAVED SURFACE
- FLOODPLAIN
- VOC PLUME ABOVE RISK REDUCTION STANDARDS (BASED ON VC) IN SHALLOW AQUIFER
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE

PPM	PARTS PER MILLION
VOC	VOLATILE ORGANIC COMPOUNDS
1,1,1–TCA	1,1,1–TRICHLOROETHANE (ppm)
TCE	TRICHLOROETHENE (ppm)
CIS–1,2–DCE	CIS–1,2–DICHLOROETHENE (ppm)
1,1–DCE	1,1–DICHLOROETHENE (ppm)
VC	VINYL CHLORIDE (ppm)
CE	CHLOROETHANE (ppm)
1,1,1,2–TCA	1,1,1,2–TETRACHLOROETHANE
1,1,2–TCA	1,1,2–TETRACHLOROETHANE
1,1,–DCA	1,1 – DICHLOROETHANE

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. NEW SURVEYED POINTS, MW–3, 4, 5, 18, 19, 20 AND 20D, SEPTEMBER 22, 2009.

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

amec
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

FIGURE 5
VOC CONCENTRATIONS IN GROUNDWATER DECEMBER 2013

JOB NO. 6125–08–0149

PREPARED BY/DATE MHA 1/27/2014
CHECKED BY/DATE

MPE Event Data Summary

STI Properties, Inc.
162 East Meadowlake Parkway, Swainsboro, GA
Operator Name: Chuck Parsons
Date: July 8, 2014
Project # GA71407

Time	Time Interval	Applied Well Head Vacuum					Addl. Bleed Air	Total Velocity	Total Effluent Flow	Well Field Flow	Pump Effluent Temp.	Total Influent FID	Filtered (CH_4) FID	Chlorinated Compounds		Before off-gas treatment				Stack Gas Temp.	Effluent Conc. Data	Total Flow Rate	After off-gas treatment		
		MW-8	MW-19													Total Methane Removed	Total Carbon Removed	Total Chlorinated Compounds Removed					Carbon Emission Rate	Equiv. Chlorinated Compound	Destruction Efficiency Rating
	(minutes)	(in/Hg)	(in/Hg)	(in/Hg)	(in/Hg)	(in/Hg)	(SCFM)	ft/sec.	(SCFM)	(SCFM)	(F^0)	(PPMv)	(PPMv)	(PPMv)	(mg/m3)	(lbs./ reading)	(lbs./ reading)	(lbs./ reading)	(gal./ reading)	(F^0)	(PPMv)	(SCFM)	(lbs./ reading)	(lbs./ reading)	%
9:45	0 min.	12.5	12.5				72.1	22.8	120.6	38.4	165.0	22	0	22	23,074	0.000	0.00	0.00	0.000	1459.0		120.58			
10:15	30 min.	12.5	12.5				72.0	22.2	117.6	35.6	197.0	19	0	19	20,415	0.000	0.00	4.49	0.369	1473.0		117.60			
10:45	30 min.	12.5	12.5				72.0	22.0	116.6	34.6	208.0	21	0	21	22,543	0.000	0.00	4.92	0.404	1488.0		116.63			
11:45	0 min.	12.5	12.5				71.5	21.8	115.5	34.0	221.0	21	0	21	22,011	0.000	0.00	0.00	0.000	1491.0	1.20	115.51	0.0000	0.0001	94.20%
12:15	30 min.	12.5	12.5				71.3	22.4	118.3	37.0	189.0	23	0	23	24,351	0.000	0.00	5.39	0.443	1490.0		118.33			
12:45	30 min.	12.5	12.5				71.0	22.1	116.7	35.7	207.0	21	0	21	22,543	0.000	0.00	4.92	0.404	1478.0		116.72			
13:15	30 min.	12.5	12.5				70.8	21.8	115.3	34.5	224.0	24	0	24	25,202	0.000	0.00	5.44	0.446	1483.0		115.26			
13:45	30 min.	12.5	12.5				70.5	21.5	113.9	33.4	240.0	21	0	21	22,755	0.000	0.00	4.85	0.398	1486.0		113.94			
14:15	30 min.	12.5	12.5				70.5	21.7	115.0	34.5	227.0	20	0	20	21,372	0.000	0.00	4.60	0.378	1485.0		115.01			
14:45	30 min.	12.5	12.5				70.4	22.2	117.2	36.8	201.0	19	0	19	20,521	0.000	0.00	4.50	0.370	1473.0		117.25			
15:15	30 min.	12.5	12.5				70.3	22.2	117.6	37.3	197.0	17	0	17	18,287	0.000	0.00	4.02	0.331	1491.0		117.60			
15:45	30 min.	12.5	12.5				70.3	22.5	119.2	38.9	179.0	14	0	14	14,989	0.000	0.00	3.35	0.275	1485.0		119.25			
16:15	30 min.	12.5	12.5				70.3	22.4	118.7	38.4	185.0	13	0	13	14,032	0.000	0.00	3.12	0.256	1494.0		118.69			
16:45	30 min.	12.5	12.5				70.3	22.3	118.0	37.7	193.0	17	0	17	18,500	0.000	0.00	4.08	0.335	1485.0		117.96			
AVG	990 min.	12.5	12.5				70.8	22.0	116.4	35.6	211.0	16	0	16	16,798	0.000	0.06	120.72	9.914	1493.0		116.37			
9:15	0 min.	12.5	12.5				71.3	21.8	115.6	34.3	220.0	14	0	14	15,202	0.000	0.00	0.00	0.000	1500.0		115.60			
9:45	30 min.	12.5	12.5				71.2	21.9	116.1	35.0	214.0	16	0	15	16,479	0.000	0.00	3.58	0.294	1505.0		116.11			
10:15	30 min.	12.5	12.5				71.1	22.0	116.5	35.5	209.0	14	0	14	14,564	0.000	0.00	3.18	0.261	1503.0		116.55			
10:45	30 min.	12.5	12.5				71.1	22.0	116.4	35.3	211.0	14	0	14	15,096	0.000	0.00	3.29	0.270	1501.0		116.37			
Average Reading:		**12.5**	**12.5**				**71.0**	**22.1**	**116.9**	**36.0**	**204.8**	**18.5**	**0.0**	**Total Removed:**		**0.000**	**0.09**	**181.17**	**14.879**	**Total Lbs Discharged:**			0.00000	0.00009	94.20%

Comments
Paul Gazzo was on site for AMEC.

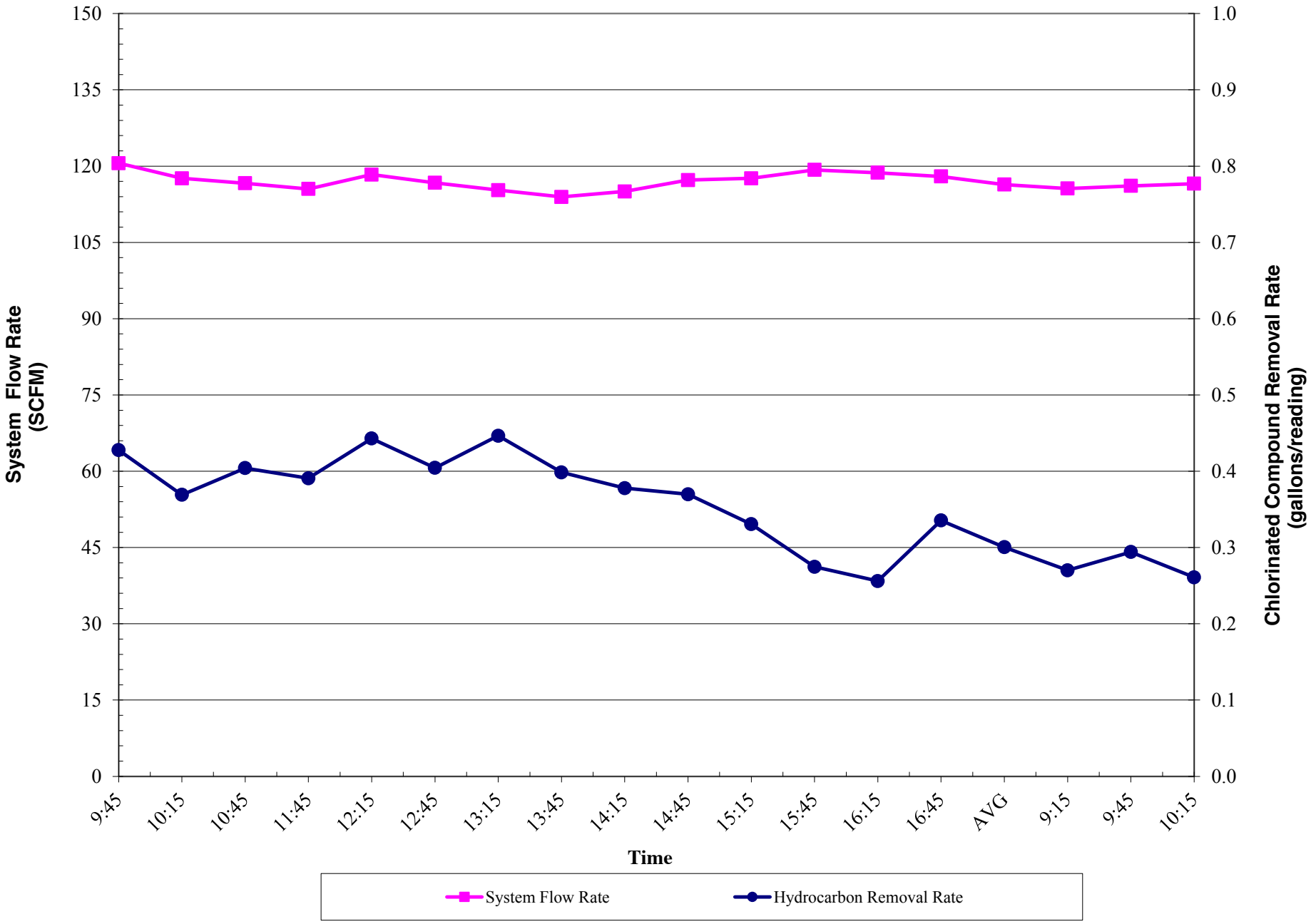
Field Data Sheet

STI Properties, Inc.
162 East Meadowlake Parkway, Swainsboro, GA
Operator Name: Chuck Parsons
Date: July 8, 2014
Project # GA71407

Response Ratio : 0.94
(Gas=600, Diesel=203, JetA=198)
Specific Gravity : 1.46
(Gas=0.74, Diesel=0.83, JetA=0.80)

			Dilution Stream		Pump Discharge Stream				Extraction Well #		MW-8	Extraction Well #		MW-19	Extraction Well #			Extraction Well #			Extraction Well #			
LINE #	Time	Time Interval	Bleed Air Diff Press. ("WC)	Bleed Air Temp	Effluent Pressure (psi)	Manifold Vacuum ("Hg")	Effluent Separator Temp	Effluent Diff Press ("WC)	Wellhead Vacuum ("Hg)	Ambient Air (SCFM)	Stinger Depth (ft.)	Wellhead Vacuum ("Hg)	Ambient Air (SCFM)	Stinger Depth (ft.)	Wellhead Vacuum ("Hg)	Ambient Air (SCFM)	Stinger Depth (ft.)	Wellhead Vacuum ("Hg)	Ambient Air (SCFM)	Stinger Depth (ft.)	Wellhead Vacuum ("Hg)	Ambient Air (SCFM)	Stinger Depth (ft.)	LINE#
1	9:45	0.01	0.31	84	0.1	13	165	0.46	12.5	5	6	12.5	5	8										1
2	10:15	30	0.31	86	0.1	13	197	0.46	12.5	5	11	12.5	5	14										2
3	10:45	30	0.31	86	0.1	13	208	0.46	12.5	5	11	12.5	5	14										3
4	11:45	0.01	0.31	94	0.1	13	221	0.46	12.5	5	11	12.5	5	16										4
5	12:15	30	0.31	96	0.1	13	189	0.46	12.5	5	11	12.5	5	16										5
6	12:45	30	0.31	101	0.1	13	207	0.46	12.5	5	11	12.5	5	16										6
7	13:15	30	0.31	105	0.1	13	224	0.46	12.5	5	11	12.5	5	16										7
8	13:45	30	0.31	109	0.1	13	240	0.46	12.5	5	11	12.5	5	16										8
9	14:15	30	0.31	109	0.1	13	227	0.46	12.5	5	11	12.5	5	16										9
10	14:45	30	0.31	111	0.1	13	201	0.46	12.5	5	11	12.5	5	16										10
11	15:15	30	0.31	112	0.1	13	197	0.46	12.5	5	11	12.5	5	16										11
12	15:45	30	0.31	112	0.1	13	179	0.46	12.5	5	11	12.5	5	16										12
13	16:15	30	0.31	113	0.1	13	185	0.46	12.5	5	11	12.5	5	16										13
14	16:45	30	0.31	113	0.1	13	193	0.46	12.5	5	11	12.5	5	16										14
15	AVG	990	0.31	105	0.1	13	211	0.46	12.5	5	11	12.5	5	16										15
16	9:15	0.01	0.31	97	0.1	13	220	0.46	12.5	5	11	12.5	5	16										16
17	9:45	30	0.31	99	0.1	13	214	0.46	12.5	5	11	12.5	5	16										17
18	10:15	30	0.31	100	0.1	13	209	0.46	12.5	5	11	12.5	5	16										18
19	10:45	30	0.31	100	0.1	13	211	0.46	12.5	5	11	12.5	5	16										19
Average Reading:			0.31	101.88	0.10	13.00	204.59	0.46	12.50	5.00	10.71	12.50	5.00	15.29										

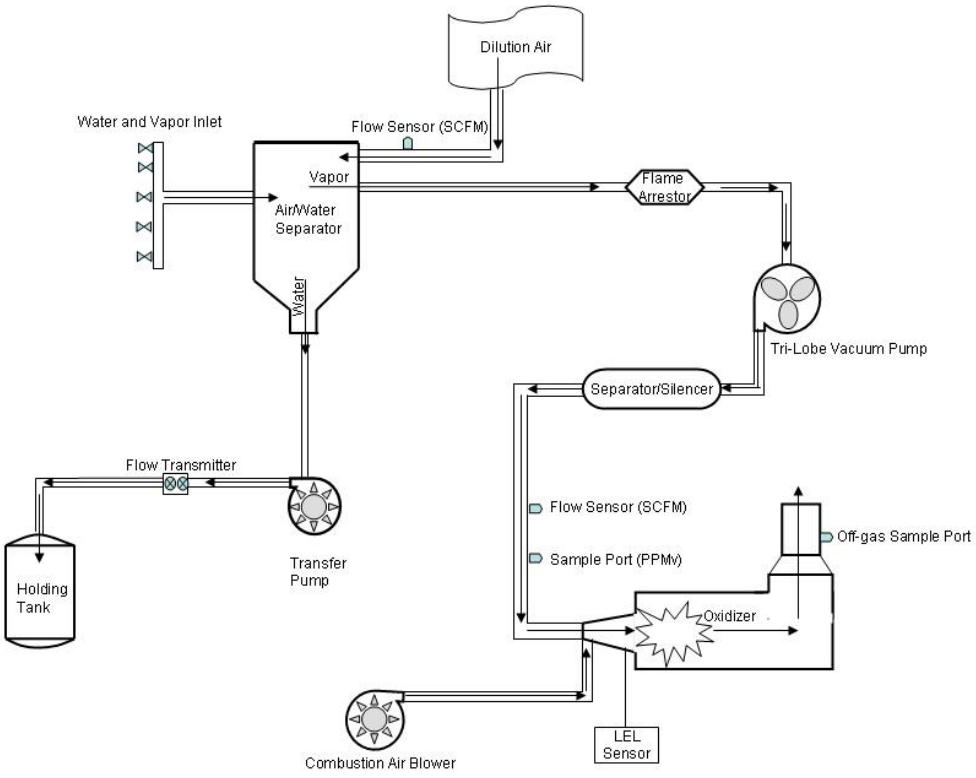
System Flow and Hydrocarbon Removal Rates



Multi-Phase Extraction Technology

Multi-phase extraction (MPE) systems remove vapors and liquids simultaneously from the subsurface. Ambient air (5 to 20 cubic feet per minute) is drawn down the casing of monitoring wells, across the groundwater interface, and back up a drop tube, providing the necessary lift to extract subsurface groundwater. An airflow gauge attached to a well head is used to measure the amount of ambient air, which is subtracted from the total flow. Additionally, vacuum gauges are used to measure the extraction vacuum, as well as the vacuum applied to the subsurface stratigraphy.

The extracted vapors and liquids are transferred to a mobile treatment system, where the liquids are separated and discharged into a storage tank for proper disposal. Soil vapors are transferred to a forced air thermal oxidation (ThOx) unit and incinerated at approximately 1,500 degrees Fahrenheit. The treated air is then discharged into the atmosphere. Following is a process flow diagram for the Brown Remediation, Inc. MPE system.



Summary of Calculations

During the MPE event, a total flow rate measurement of the process stream is taken on the discharge side of the vacuum extraction pump and before off-gas treatment. This measurement is performed using an averaging pitot tube (Dwyer DS-300) attached to a digital differential pressure sensor. This measurement is used to calculate the removal rates and the off-gas emission rates and is reported in actual cubic feet per minute. A separate flow rate is calculated for the extraction well field, as well as for any additional ambient air introduced into the influent stream. To determine the volume of hydrocarbon removed during the event, samples of the extracted vapors are collected from a sample port located before the vapor stream enters the ThOx unit. A second sample port located on the exhaust stack of the ThOx unit provides access for determining the destruction efficiency of the combustion process.

Concentration measurements are taken using a TVA-1000A flame ionization detector (FID) calibrated to methane. This FID instrument has a dynamic range of 0 to 50,000 parts per million (PPM) as methane, and 0 to 100,000 PPM as hydrocarbon. The concentration measurements of the process stream are made after the addition of ambient air at the phase separator and prior to the addition of combustion air at the oxidizer; however, the concentration of the process stream at the sample port exceed the dynamic range of the FID instrument. To accurately record the high concentrations commonly observed during an MPE event, a calibrated 10:1 dilution assembly is used to accurately dilute the sample. This dilution assembly, along with the FID instrument, is calibrated before the start of each event.

To account for naturally occurring methane present during a typical MPE event, two concentration measurements are taken. One unfiltered sample measures the total volatile organic compounds (VOCs) in the subsurface. The other sample is collected using an in-line activated carbon filter, which adsorbs the hydrocarbon compounds, leaving only methane. This methane-only result is then subtracted from the total VOC measurement for use in the mass hydrocarbon removal calculation. However, as with any FID instrument, the non-methane organic compound results are recorded as parts per million by volume (PPMv) as if the concentrations were equivalent to methane gas. A conversion from methane to hydrocarbon, and from volume to weight, is necessary to calculate the accurate hydrocarbon removal. By using the TVA-1000's factory-certified response ratio for various hydrocarbons, the measurements are converted to equivalent hydrocarbon in milligrams per liter (mg/L). For example, a TVA-1000 FID has an average response ratio of 600 PPMv per mg/L for unleaded gasoline and 200 PPMv per mg/L for diesel. Following is a summary of calculations.

Flow

$$Q = 128.8 \times K \times D \times SQRT((P \times dP) / (T + 460) \times Ss)$$

Where:

Q =	Flow expressed in Standard Cubic Feet per Minute (SCFM)
K =	Flow coefficient (provided by Dwyer Instruments, Inc.)
D =	Inside diameter of process line in inches
SQRT =	Square Root
P =	Static line pressure
dP =	Differential pressure expressed in inches of water column (WC)
T =	Temperature in degrees Fahrenheit (plus 460 equals degrees Rankine)

Ss = Specific gravity at 60 degrees Fahrenheit

Conversion of Field Data (PPMv to mg/m^3)

C = (PPMv / R) x (1000 L / 1 m^3)

Where:

R = TVA response ratio supplied in The Foxboro Monitor, Volume 3, Issue 1A (600 PPMv / (mg/L) for gasoline and 200 PPMv / (mg/L) for diesel)

Hydrocarbon Loading Rate

M = Q x C x c

Where:

M = Contaminant loading rate (lbs/hr)

Q = Air flow rate (SCFM)

C = Contaminant concentration (mg/m^3)

c = (1m^3 / 35.31 ft) x (1 lb / 454 x 10^3) x (60 min / 1 hr) = 3.743 x 10^{-6}

Conversion of Pounds of Hydrocarbon to Equivalent Gallons

Equivalent Gallons = Ss x c

Where:

Ss = Specific gravity (0.74 = gasoline, 0.84 = diesel fuel)

c = 8.34 lbs/gallon

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