52309

SCANNED
8-3-17

July 25, 2017

amec foster wheeler

Mr. Lucas Berresford
Bureau of Land & Waste Management
Site Remediation Section
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED
JUL 27 2017
SITE ASSESSMENT, REMEDIATION & REVITALIZATION

Subject: **Remedial Investigation Report Addendum**
Former Vermont Bosch Site
Fountain Inn, South Carolina
SCDHEC Site ID #52309
Amec Foster Wheeler Project 6251161022.02.03

Dear Mr. Berresford:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) is pleased to submit the subject report on behalf of the Robert Bosch Tool Corporation. Should you have any questions, please do not hesitate to contact Paul S. Johnstone at (864) 552-9624.

Sincerely,

Amec Foster Wheeler

Paul S. Johnstone, P.G.
Principal Geologist
Licensed, SC #2134

Amec Foster Wheeler
Environment & Infrastructure, Inc.
400 Executive Center Dr., Suite 200
Greenville, SC 29615

Tel (864) 458-3600
Fax (864) 458-3700
amecfw.com

43

REMEDIAL INVESTIGATION REPORT ADDENDUM

FORMER VERMONT BOSCH SITE
FOUNTAIN INN, SOUTH CAROLINA
SCDHEC SITE ID #52309

Prepared for:

ROBERT BOSCH TOOL CORPORATION
1800 West Central Road
Mount Prospect, Illinois 60056

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
400 Executive Center Drive, Suite 200
Greenville, South Carolina 29615

Amec Foster Wheeler Project 6251161022.02.03

July 25, 2017

July 25, 2017

Mr. Lucas Beresford
Bureau of Land & Waste Management
Site Remediation Section
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: **Remedial Investigation Report Addendum**
Former Vermont Bosch Site
Fountain Inn, South Carolina
SCDHEC Site ID #52309
Amec Foster Wheeler Project 6251161022.01.01

Dear Mr. Beresford:

Amec Foster Wheeler Environment & Infrastructure, Inc. is pleased to submit the subject report on behalf of the Robert Bosch Tool Corporation. Should you have any questions, please do not hesitate to contact Paul S. Johnstone at (864) 458-3707.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Timothy S. Renn, P.E.
Senior Engineer
Licensed, SC #24284

Paul S. Johnstone, P.G.
Principal Geologist
Licensed, SC #2134

Cc: Mr. Aromake Afiegbe – Robert Bosch Tool Corporation, Mount Prospect, IL
Ms. Rachael Remmers – Robert Bosch, LLC, Farmington Hills, MI

Amec Foster Wheeler
Environment & Infrastructure. Inc.
400 Executive Center Drive, Suite 200
Greenville, SC 29615

Tel (864) 552-9624
Fax (864) 552-9699
amecfw.com

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

A&D	A&D Environmental Services, Inc.
AE	A.E. Drilling Services (SC), LLC
AES	Atlanta Environmental Services, Inc.
AOC	Area of Concern
bgs	below ground surface
C	Celsius
ctu	Color-Tec Units
DO	Dissolved Oxygen
DPT	Direct Push Technology
FDR	Field Data Record
FS	Feasibility Study
FSAP	Field Sampling and Analysis Plan
IDW	Investigative Derived Waste
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MSL	Mean Sea Level
µg/L	micrograms per liter
MSWLF	Municipal Solid Waste Landfill
ORP	Oxidation Reduction Potential
PCE	Perchloroethylene (tetrachloroethene)
QAPP	Quality Assurance Project Plan
RBTC	Robert Bosch Tool Corporation
RI	Remedial Investigation
RL	Reporting Limit
SCDHEC	South Carolina Department of Health and Environmental Control
SPGS	Screen Point Groundwater Sampler
USEPA	United States Environmental Protection Agency
VAC	Vermont American Corporation
VCC	Voluntary Cleanup Contract
VOCs	volatile organic compounds

1.0 INTRODUCTION

This Remedial Investigation (RI) Report Addendum has been prepared to document the additional RI activities at the Former Vermont Bosch Site (Site) located in Fountain Inn, South Carolina. The RI Report Addendum has been prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), formerly AMEC Environment & Infrastructure, Inc. and MACTEC Engineering and Consulting, Inc., on behalf of Robert Bosch Tool Corporation (RBTC), in accordance with Voluntary Cleanup Contract (VCC) #05-5613-RP, executed on August 29, 2005. RBTC, a division of Robert Bosch, LLC, is the successor to Vermont American Corporation (VAC), who manufactured screwdrivers and spade bits at the Site.

Groundwater field screening activities were conducted in response to comments on the RI Report (Amec Foster Wheeler, 2016a) from the South Carolina Department of Health and Environmental Control (SCDHEC) in a letter dated April 20, 2016 and in accordance with the Field Sampling and Analysis Plan (FSAP) for Additional Groundwater Investigation dated June 3, 2016 (Amec Foster Wheeler, 2016b) and approved by SCDHEC in a letter dated June 15, 2016. Copies of the April 20, 2016 and June 15, 2016 SCDHEC letters are included in **Appendix A**.

1.1 PURPOSE OF REPORT ADDENDUM

The purpose of the groundwater field screening was to provide additional information on the nature and extent of contaminated groundwater present at the Site including a further evaluation of the intermediate water table aquifer downgradient of the suspected source area, specifically down gradient of MW-09-07 and MW-09-11. As a result of the groundwater field screening, Amec Foster Wheeler installed additional monitoring wells to provide monitoring points for the intermediate and deep portions of the aquifer downgradient of the suspected source area. The purpose of the RI Report Addendum is to document the results of the groundwater field screening, monitoring well installation, and monitoring well sampling.

1.2 BACKGROUND

Volatile organic compounds (VOCs) were detected in previous groundwater field-screening samples and RI monitoring well groundwater samples collected immediately downgradient from Area of Concern (AOC) # 9 (Former Hazardous Waste Accumulation Building) and at the adjacent Fort Dearborn (former Sherwin-Williams) property , which is also downgradient from AOC #9.

The 2016 groundwater field screening targeted the water table aquifer below the current depth of the shallow groundwater monitoring wells that were installed during the RI over the depth interval from 10 to 25 feet below ground surface (bgs). This groundwater field screening included the intermediate (mid-level) water table aquifer, approximately 26 to 40 feet bgs, and the deeper aquifer to the top of bedrock zone, approximately 40 to 75 feet bgs. Groundwater field screening borings were installed both side gradient and down the approximate center line of known shallow groundwater contamination in order to further define the vertical presence of the plume.

The results of the groundwater field screening were documented in a Report of Groundwater Field Screening dated November 11, 2016 (Amec Foster Wheeler, 2016c) submitted to the SCDHEC. The Report of Groundwater Field Screening included a recommendation for the installation of seven new monitoring wells to monitor the intermediate and deep portions of the aquifer downgradient from AOC #9. The SCDHEC provided approval Report of Groundwater Field Screening and the proposed monitoring wells, including a Monitoring Well Permit, in a letter dated January 11, 2017, which is included in **Appendix A**.

2.0 FIELD ACTIVITIES

2.1 GROUNDWATER FIELD SCREENING

During the period from August 10, 2016 to August 12, 2016, ten multi-level groundwater field-screening borings were advanced at the Site. The borings were advanced by A.E. Drilling Services, Inc. (AE), under subcontract to Amec Foster Wheeler, using a direct-push technology (DPT) drill rig. A summary of the DPT boring locations, identified as GW-09-01 through GW-09-05, GW-09-05A, and GW-09-06 through GW-09-09, and their sample intervals is provided on **Table 1**. Each of the borings, with the exception of GW-09-05, was advanced to DPT refusal. Boring GW-09-05 was terminated at 30 feet bgs due to mechanical issues with the DPT rig and boring GW-09-5A was advanced to evaluate the aquifer below 30 feet bgs. The locations of the groundwater field-screening borings are shown on **Figure 1**. Groundwater field-screening borings conducted as part of previous Site groundwater assessments (2003 and 2005) are also shown on this figure.

Groundwater field-screening samples were collected on ten-foot centers starting approximately five feet below the bottom of existing shallow groundwater monitoring wells (approximately 25 feet bgs) to DPT refusal. Samples were collected from each groundwater field-screening boring using a Geoprobe® Screen Point Groundwater Sampler (SPGS). The SPGS was driven to the desired sampling depth and the four-foot long sampling screen was then exposed. Once groundwater had entered the sampler, a length of tubing was inserted into the SPGS and a groundwater sample was extracted using a peristaltic pump or manually extracted using a check valve system installed on the bottom of the tubing. The SPGS was then removed from the borehole and decontaminated before being driven to the next sampling depth.

A portion of each groundwater sample collected was field screened using the Color-Tec method and the remainder of the sample was collected into laboratory-provided and preserved sample containers, marked with the appropriate identifying number, packed on ice in a sample cooler, and held for potential laboratory analysis. The Color-Tec method is described in the FSAP for Additional Groundwater Investigation (Amec Foster Wheeler, 2016b). Based on field screening Color-Tec results, 17 groundwater samples were shipped under chain-of-custody protocols to Atlanta Environmental Services, Inc. (AES) located in Atlanta, Georgia and analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method 8260B.

2.2 MONITORING WELL INSTALLATION AND DEVELOPMENT

As a result of the 2016 groundwater field screening, seven additional monitoring wells were installed to supplement the permanent groundwater monitoring system developed during the RI. The monitoring wells were installed over the period from February 6, 2017 through February 10, 2017 by AE under subcontract to Amec Foster Wheeler. Four of the monitoring wells were installed in the intermediate (mid-level) portion of the aquifer (MW-09-28, MW-09-29, MW-09-30, and MW-09-32) and three of the monitoring wells were installed in the deep portion of the aquifer (MW-09-26, MW-09-27, and MW-09-31).

At each intermediate location, hollow-stem augers were used to advance the boring to the targeted depth and a monitoring well was installed. At each deep location, hollow-stem augers were used to advance the boring to a depth below the intermediate zone and a six-inch casing was set and grouted in place. After allowing the grout to cure, the boring was advanced using mud-rotary drilling techniques to the top of bedrock and a monitoring well was installed in the boring. A detailed description of the monitoring well installation and sampling procedures was included in Section B2 (pages B10 thru B16) of the Quality Assurance Project Plan (QAPP), which was Appendix B of the RI/Feasibility Study (FS) Work Plan (AMEC, 2012).

Intermediate well depths ranged from approximately 35 feet below ground surface (bgs) to 45 bgs. Intermediate monitoring wells MW-09-28 and MW-09-32 have a screen length of 10 feet. Intermediate monitoring wells MW-09-29 and MW-09-30 have a screen length of 15 feet. Deep well depths range from approximately 53 feet bgs to 75 feet bgs. The deep monitoring wells have a screen length of 10 feet. Following well installation, each monitoring well was developed and sampled. The monitoring well locations are shown on **Figure 2**. A summary of the existing and newly-installed monitoring well construction details is included as **Table 2**. Monitoring well construction diagrams and SCDHEC Form 1903 are provided in **Appendix B**.

The newly-installed monitoring wells were developed by the drilling contractor as soon as practical after well installation, but no sooner than 48 hours following placement of the grout seal. A detailed description of the monitoring well development procedures was included in Section B2 (pages B12 thru B13) of the QAPP (AMEC, 2012).. Development of wells was accomplished with an electric submersible pump. The wells were surged and the pump was periodically raised and water allowed to drain back into the well in order to induce flow out through the well screen. Water was not added to the well to aid in development. Non-dedicated submersible pumps were

decontaminated prior to use and in between each well. The wells were considered developed when the purged groundwater was clear, free of sediment, and five borehole volumes were removed from the well. Monitoring well development field data records (FDRs) are presented in **Appendix C**.

2.3 MONITORING WELL SAMPLING

Prior to purging and sampling each newly-installed well, the depth to groundwater and total well depth were measured using an electronic water level indicator to calculate well and borehole volumes. The water level meter was decontaminated with an Alconox® and water mixture and rinsed with potable water prior to starting activities and between each well. The depth to groundwater was measured from a marked survey reference point at the top of well casing to the groundwater surface in each monitoring well. Measurements were recorded to the nearest 0.01 foot.

The newly-installed monitoring wells were purged prior to sampling to provide fresh formation water for analysis. A detailed description of the monitoring well purging and sampling procedures was included in Section B2 (pages B13 thru B16) of the QAPP (AMEC, 2012). Purging was conducted using the low flow/low stress purging method. The low flow/low stress method consists of removing water from a monitoring well at a flow rate that does not exceed the recharge rate of the monitoring well. The monitoring wells were purged with a peristaltic pump. Purging was conducted until the pH, dissolved oxygen (DO), oxidation reduction potential (ORP), turbidity, and temperature measurements stabilized.

During the February 2017 sampling activities, for informational purposes, field water quality parameters (pH, specific conductance, DO, ORP, and temperature) were measured using a YSI Professional Plus multi-meter. Turbidity was measured with a Hach 2100Q turbidity meter. The meters were calibrated on a daily basis according to the manufacturer's instructions. Equipment calibration records are included in **Appendix D**. Purging was terminated and samples were collected for analysis when all water quality parameters were stabilized. Stabilization of parameters was defined as three consecutive readings having acceptable variations as indicated below:

pH of +/- 0.1 standard units (s.u.)
Temperature +/- 0.5 degrees Celsius (ºC)
Specific Conductance of +/- 3 % variation

ORP of +/- 10 millivolts (mV)
DO of +/-10 %

FDRs for the groundwater sampling activities are included in **Appendix C**. To minimize the potential for cross-contamination between sampling locations, all disposable sampling equipment (tubing, gloves, etc.) was changed between each well.

Groundwater samples were collected into laboratory-prepared and preserved sample containers and marked with a unique identifying number. The samples were packed in a cooler with ice and shipped or delivered by courier under chain of custody protocol to AES for analysis of VOCs by USEPA Method 8260B.

2.4 SURVEY

Following completion of well development, the monitoring wells were surveyed for horizontal and vertical control by Freeland and Associates located in Greenville, South Carolina.

2.5 INVESTIGATIVE DERIVED WASTE GENERATION

Investigative derived waste (IDW) generated during additional RI activities consisted of soil cuttings, monitoring well development water, monitoring well purge water, and decontamination fluids that were labeled with the containerized and staged on the Site pending characterization and disposal. Soil cuttings generated during monitoring well installation between February 6, 2017 and February 10, 2017 were containerized in a lined roll-off. Development water generated during monitoring well development from February 9, 2017 to February 13, 2017 and purge water generated during monitoring well sampling on February 14 and 15, 2017 were containerized in three polyethylene tanks. The rolloff and polyethylene tanks were labeled with the date of generation and that the IDW was pending analysis.

3.0 RESULTS

3.1 GROUNDWATER FIELD SCREENING

DPT refusal depths ranged from 41 feet bgs (GW-09-08) to 74 feet bgs (GW-09-01). An overburden (saprolite) isopach map representing data from previous investigations, the RI, and this investigation is presented as **Figure 3**. The saprolite thickness map is based on DPT refusal during field screening and the depth to top of rock established during the initial well installation. DPT refusal from groundwater field-screening data, presented in the previous 2003 and 2005 investigations, is also shown on this map but was not used in the generation of the contours. The thickest portion of the saprolite runs from the former hazardous waste storage area southwest and south through the rear parking lot of the Fort Dearborn (former Sherwin Williams) facility. The saprolite becomes shallow quickly to the southeast and northwest. This feature forms a potential preferential pathway that appears to influence the orientation of the groundwater contaminant transport.

During the groundwater field screening, 28 discrete groundwater samples for Color-Tec analysis were collected from 10 borings. Positive Color-Tec results were observed in six of the 28 groundwater samples and ranged from a trace to 5.0 Color-Tec units (ctu). The results of the groundwater field-screening sampling is provided in **Table 1**.

Concentrations of 2-butanone (methyl ethyl ketone), acetone, and tetrachloroethene (perchloroethylene, or PCE) were detected above the laboratory's Reporting Limit (RL) in one or more of the field-screening groundwater samples submitted to the laboratory for analysis. Estimated concentrations (J-Flagged) of acetone, methylene chloride, and PCE between the laboratory's Method Detection Limit (MDL) and the RL were reported in one or more of the field-screening groundwater samples. It should be noted that acetone and methylene chloride are common laboratory contaminants.

Detections of PCE ranged from 0.99J micrograms per liter (µg/L) at GW-09-06 (46 to 50 feet bgs) to 130 µg/L at GW-09-04 (26 to 30 feet bgs). Concentrations of PCE above the maximum contaminant level (MCL) of 5 µg/L established in South Carolina Primary Drinking Water Regulation R.61-58 (October 2014) were observed in three borings: GW-09-04 (26 to 30 feet bgs), GW-09-05A (46 to 50 feet bgs), and GW-09-07 (26 to 30 feet bgs). The laboratory analytical results are summarized on **Table 3**. Isoconcentration contour maps for PCE in the Shallow Zone

from 10–25 feet bgs, Intermediate Zone A from 26–30 feet bgs, Intermediate Zone B from 36-40 feet bgs, and the Deep Zone from 46-50 feet bgs are shown on **Figure 4** through **Figure 7**. The configuration of the plume is based on monitoring well data previously presented in the RI Report (Amec Foster Wheeler, 2016a) and analytical and field screening data collected during the groundwater field-screening investigation. Additional field screening data, previously presented in the 2003 and 2005 investigations, is also shown on these maps but was not used in the generation of the contours. The laboratory report and chain-of-custody records are included in **Appendix E**.

3.2 GROUNDWATER ELEVATIONS

Prior to conducting water level measurements, the depth markings on the water level tape were verified using a commercial tape measure. Depth to groundwater measurements were obtained from 32 wells, along with background well B-1, on February 14, 2017. Water levels were collected using an electronic water level meter. The water level meter was decontaminated with an Alconox® and water mixture and rinsed with potable water prior to starting activities and between each well. At each monitoring well, the well cap was removed and the well was allowed to equilibrate. Measurements were made from a reference point at the top the well casing from a mark that had been made indicating the highest point of the casing. Depth measurements were recorded to the nearest 0.01 foot. The depth to the groundwater was subtracted from the surveyed elevation of the top of well casing reference point to determine the groundwater elevation. The groundwater elevation data collected on February 14, 2017 is presented on **Table 4**.

Groundwater elevations in the shallow portion of the aquifer ranged from 821.77 feet above mean sea level (MSL) in monitoring well B-1 to 792.98 feet above MSL in monitoring well MW-09-25. The groundwater elevations in deep portion of the aquifer ranged from 819.35 feet above MSL in monitoring well MW-08-2D to 795.94 feet above MSL in monitoring well MW-09-18D (see **Table 4**). A water table elevation contour map and a bedrock groundwater elevation contour map for the February 2017 water levels is presented in **Figure 8** and **Figure 9**, respectively.

3.3 GROUNDWATER SAMPLING

Concentrations of PCE were detected above the laboratory's RL in two intermediate samples (MW-09-28 and MW-09-32). Chloroform was detected above the laboratory's RL in two samples (MW-09-26 and MW-09-27). A concentration of toluene was reported above the laboratory's RL

in one intermediate sample. Estimated concentrations of benzene (one sample) and methylene chloride (four samples) were reported. Only one of the intermediate monitoring wells (MW-09-32) had a PCE result (30 µg/L) that exceeded the SCDHEC MCL of 5 µg/L. Although chloroform does not have a specific SCDHEC MCL, it is one of the trihalomethanes and total trihalomethanes have an MCL of 80 µg/L . Two of the concentrations of chloroform (MW-09-26 and MW-09-27), both deep monitoring wells, have concentrations of chloroform that exceed the MCL for total trihalomethanes (80 µg/L) at 730 µg/L and 1,100 µg/L, respectively. The estimated concentrations of benzene and methylene chloride and the concentration of toluene were below their respective SCDHEC MCLs. It should be noted that methylene chloride and toluene are common laboratory contaminants.

The PCE results from the groundwater samples collected from the newly-installed monitoring wells are shown on **Figure 4** through **Figure 7**, as applicable. Groundwater laboratory analytical results are summarized in **Table 5**. A lithologic cross-section through the axis of the contaminant plume is presented as **Figure 10**. The laboratory report is included in **Appendix E**.

3.4 DATA VALIDATION

Groundwater samples were collected during sampling completed in February 2017 at the Site. The samples were analyzed by Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia. Sample results were submitted from AES in one sample delivery group (SDG): 1702E41. Samples reviewed in this report were analyzed for the following USEPA SW-846 (USEPA, 1996) method:

- VOCs in water by USEPA Method 8260B

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2010; USEPA, 2016). Project data quality criteria for the VOC analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on 100 percent of the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data quality are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J - Estimated value
R - Unusable
U - Undetected
UJ - Undetected and reporting limit is estimated

Validation reason codes are applied to the results to document the reason for the validation qualification.

Except for the data qualification actions identified below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Chloroform (“U” flagged) in samples MW-09-28 and MW-09-31.

The data validation report is included in **Appendix F**.

3.5 INVESTIGATIVE DERIVED WASTE DISPOSAL

As discussed in Section 2.5, IDW generated during RI field activities consisted of soil cuttings, development water, and purge water.

On February 15, 2017, a composite soil sample was collected from the soil cuttings in the lined roll-off for disposal characterization. The sample sent to AES and analyzed for Toxicity Characteristic Leachate Procedure (TCLP) metals and TCLP VOCs. Laboratory analytical results indicated that the containerized soils were non-hazardous. On April 26, 2017, A&D Environmental

Services (SC), LLC (A&D) transported 7.57 tons (15,140 pounds) of non-hazardous drill cuttings to the Upstate Regional Municipal Solid Waste (MSW) Landfill located in Enoree, South Carolina for disposal. Water samples from the three polyethylene tanks were collected on February 14 and 15, 2017 and submitted to AES and analyzed for VOCs. The laboratory analytical results indicated that the purge/development water was non-hazardous. On May 4, 2017, A&D pumped out the polyethylene tanks and transported 500 gallons of non-hazardous development water and purge water to its facility in Lexington, South Carolina for disposal.

Waste disposal manifests for IDW generated during the RI are included in **Appendix G**.

4.0 FINDINGS

4.1 GROUNDWATER FIELD SCREENING

- Positive Color-Tec results were observed in six of the 28 groundwater samples and ranged from a trace to 5.0 ctu. Correlation between samples field screened using the Color-Tec method and samples selected for laboratory analysis was fair with the exception GW-09-07 at 26-30 feet bgs.
- Concentrations of PCE were detected in the groundwater field-screening samples above the SCDHEC MCL in three of the 17 groundwater samples selected for laboratory analysis. Two of the detections above the MCL were observed in Intermediate Zone A (26 to 30 feet bgs) and one detection above the MCL was observed in the Deep Zone (46 to 50 feet bgs).

4.2 GROUNDWATER SAMPLING

- The PCE-impacted groundwater plume has been defined both horizontally and vertically.
- The zone of maximum contamination appears to be in the Shallow Zone (10 to 25 feet bgs) and Intermediate Zone A (26 to 30 feet bgs) of the aquifer. Intermediate Zone B (36 to 40 feet bgs) and the Deep Zone of the saprolite aquifer (46 to 50 feet bgs) appear to be minimally impacted (i.e., minimum detections of PCE above the MCL). Based on sampling conducted during the RI, the bedrock portion of the aquifer is not impacted by the PCE contamination.
- The configuration of the plume is similar to the plume depicted in the RI report. The axis of the plume has shifted slightly to the west (see **Figure 4**). The configuration of the saprolite thickness appears to greatly influence the direction of contaminant transport at the site (see **Figure 3**).
- According to the laboratory narrative, residual chlorine or another oxidizing agent was present in samples MW-09-26 and MW-09-27. The presence of free chlorine in aqueous samples can cause formation of trihalomethanes and other chemical reactions when preserved with hydrochloric acid (HCl). These two samples had detections of chloroform, which is a trihalomethane. Therefore, this detection of chloroform could be a byproduct of residual chlorine in the groundwater and HCl preservation. Potable water was used for the drilling fluid of these deep, cased wells. The pH of the water in these wells was elevated (10-13 s.u.) during sampling. It's possible that some of the drilling fluid seeped through the casing into the formation during installation of the well and resulted in residual chlorine being captured during sampling.

5.0 RECOMMENDATIONS

Based on the completion of the additional investigation activities requested by SCDHEC, Amec Foster Wheeler recommends that SCDHEC provide final approval of the RI and approve the preparation of the draft Feasibility Study.

6.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in environmental assessments and waste-management projects of this type. Our evaluation of Site conditions has been based on our understanding of the Site and project information and the data obtained in our assessments. The general subsurface conditions utilized in our evaluation have been based on interpolation of subsurface data between the sampling locations. Regardless of the thoroughness of an environmental Site assessment, there is always the possibility that conditions between sampling locations will be different from that at specific locations due to the variability of subsurface conditions. Therefore, it was not possible to identify all conceivable forms of contamination.

This report has been prepared on behalf of and exclusively for the use of Robert Bosch Tool Corporation, Robert Bosch, LLC, and the SCDHEC. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party or used or relied upon by any other party without Amec Foster Wheeler's prior written consent.

7.0 REFERENCES

AMEC Environment & Infrastructure, Inc., 2012. Remedial Investigation / Feasibility Study Work Plan, Revision 4.0, Former Vermont Bosch Site, Fountain Inn, South Carolina. AMEC Project 6251121007.01.01, May 31, 2012.

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016a. Remedial Investigation Report, Former Vermont Bosch Site, Fountain Inn, South Carolina, SCDHEC Site ID #52309. Amec Foster Wheeler Project 6251121007.03.01, March 18, 2016.

Amec Foster Wheeler, 2016b. Field Sampling and Analysis Plan for Additional Groundwater Investigation, Former Vermont Bosch Site, Fountain Inn, South Carolina, SCDHEC Site ID #52309. Amec Foster Wheeler Project 6251121007.03.01, June 3, 2016.

Amec Foster Wheeler, 2016c. Report of Groundwater Field Screening, Former Vermont Bosch Site, Fountain Inn, South Carolina, SCDHEC Site ID #52309. Amec Foster Wheeler Project 6251121007.03.01, November 11, 2016.

TABLES

TABLE 1

Groundwater Field-Screening Sample Intervals and Results
Former Vermont Bosch Site
Fountain Inn, South Carolina
Amec Foster Wheeler Project 6251161022.02.03

Proposed Sample ID	Sample Depth (bgs)	COLOR-TEC (ctu)	COLOR-TEC Duplicate (ctu)	PCE by USEPA 8260B (µg/L)
GW-09-01	26-30 feet	ND	ND	NA
	36-40 feet	ND	ND	NA
	46-50 feet	ND	ND	NA
	56-60 feet	ND	ND	NA
	66-70 feet	ND	ND	NA
	Refusal at 74' bgs			
GW-09-02	26-30 feet	ND	ND	3.0
	36-40 feet	ND	ND	NA
	46-50 feet	ND	ND	< 1.0
	Refusal at 52' bgs			
GW-09-03	26-30 feet	ND	ND	2.4
	36-40 feet	ND	ND	NA
	46-50 feet	ND	ND	< 1.0
	Refusal at 49.5' bgs			
GW-09-04	16-20 feet	2.0	NC	NA
	26-30 feet	5.0	NC	130
	36-40 feet	ND	ND	2.6
	46-50 feet	ND	ND	< 1.0
	Refusal at 49.5' bgs			
GW-09-05	26-30 feet	0.75	NC	< 1.0
GW-09-05A	26-30 feet	2.0	NC	< 1.0
	36-40 feet	ND	ND	< 1.0
	46-50 feet	TRACE	TRACE	6.9
	Refusal at 50' bgs			
GW-09-06	26-30 feet	0.8	0.5	NA
	36-40 feet	ND	ND	NA
	46-50 feet	ND	ND	*0.99J*
	Refusal at 53' bgs			
GW-09-07	26-30 feet	ND	ND	27
	36-40 feet	ND	ND	< 1.0
	Refusal at 43' bgs			
GW-09-08	26-30 feet	ND	ND	3.4
	36-40 feet	ND	ND	< 1.0
	Refusal at 41' bgs			
GW-09-09	26-30 feet	ND	ND	< 1.0
	36-40 feet	ND	ND	NA
	Refusal at 43' bgs			

Notes:
PCE = Tetrachloroethene (perchloroethylene)
bgs = Below ground surface
ctu = Color-Tec unit
USEPA = United States Environmental Protection Agency
µg/L = microgram per liter
ND = not detected
NC = not collected
NA = not analyzed
Refusal = probe refusal
Italicized values are estimated
Yellow shaded values represent detections above South Carolina MCL (5 µg/L)

Prepared By/Date: PSJ 08/23/16
Checked By/Date: LLM 10/04/16

TABLE 2

Summary of Monitoring Well Construction Information
Former Vermont Bosch Site
Fountain Inn, South Carolina
Amec Foster Wheeler Project 6251161022.02.03

Monitoring Well	Date Installed	Northing	Easting	Ground Elevation (ft, msl)	TOC Elevation (ft, msl)	Boring Depth (ft, bgs)	Casing Depth (ft, bgs)	Well Depth (ft, bgs)	Screened Interval (ft, bgs)	Screen Length (ft)	Top of Sand (ft, bgs)	Top of Bentonite (ft, bgs)	Zone
B-1	4/23/1985	1040043.7640	1639622.5660	834.83	834.59	21.00	NA	20.40	10.40 - 20.40	10.00	9.00	8.00	Shallow
MW-08-01	8/30/2002	1039825.6220	1639518.2470	833.81	833.58	24.00	NA	24.00	14.00 - 24.00	10.00	NM	NM	Shallow
MW-08-2D	12/3/2014	1039818.7168	1639511.8542	834.06	833.80	82.00	63.00	82.00	76.00 - 81.00	5.00	74.00	70.00	Bedrock
MW-08-03	11/12/2014	1039759.7352	1639474.9823	834.02	833.56	20.25	NA	20.25	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-08-04	11/13/2014	1039728.9413	1639555.5862	829.01	828.78	19.75	NA	19.75	9.50 - 19.50	10.00	7.50	5.50	Shallow
MW-08-05	11/12/2014	1039793.8660	1639602.9207	831.65	831.35	20.25	NA	20.25	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-09-06	11/12/2014	1039456.7701	1639115.7991	822.46	822.13	20.25	NA	20.25	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-09-07	7/17/2015	1039581.9240	1639063.2460	829.14	828.88	25.25	NA	25.25	15.00 - 25.00	10.00	13.00	11.00	Shallow
MW-09-08D	7/17/2015	1039585.6570	1639058.7090	828.98	828.72	92.25	78.00	92.25	87.00 - 92.00	5.00	82.00	74.00	Bedrock
MW-09-09	11/10/2014	1039652.8179	1639080.8861	831.12	830.93	25.25	NA	25.25	15.25 - 25.25	10.00	13.00	10.00	Shallow
MW-09-10	11/13/2014	1039555.6434	1638909.2130	818.55	818.00	19.25	NA	19.25	9.00 - 19.00	10.00	7.00	5.00	Shallow
MW-09-11	11/13/2014	1039386.6393	1638955.6618	818.39	818.14	20.25	NA	20.00	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-09-12D	11/20/2014	1039392.0883	1638957.3280	818.29	818.18	74.00	54.00	74.00	69.00 - 74.00	5.00	67.00	64.00	Bedrock
MW-09-13	11/14/2014	1039285.2089	1639020.2683	815.95	815.59	20.25	NA	20.25	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-09-14	11/18/2014	1039303.4034	1638867.7271	814.71	814.55	19.75	NA	19.75	9.50 - 19.50	10.00	7.00	5.00	Shallow
MW-09-15	11/14/2014	1039242.2453	1638948.7488	815.05	814.76	20.25	NA	20.25	10.00 - 20.00	10.00	8.00	6.00	Shallow
MW-09-16D	11/21/2014	1039244.1948	1638952.9302	814.97	814.83	72.00	53.00	72.00	67.00 - 72.00	5.00	64.00	51.00	Deep
MW-09-17	11/18/2014	1039127.9002	1638846.3974	814.12	813.84	19.25	NA	19.25	9.00 - 19.00	10.00	7.00	5.00	Shallow
MW-09-18D	11/24/2014	1039122.2100	1638842.1298	813.91	813.76	88.00	68.00	88.00	78.00 - 88.00	10.00	75.00	67.00	Bedrock
MW-09-19D	11/25/2014	1039534.1427	1639075.8665	828.15	828.02	83.00	71.00	81.00	76.00 - 81.00	5.00	74.00	70.00	Bedrock
MW-03-20	11/11/2014	1039926.7539	1639185.7182	834.20	833.81	27.25	NA	27.25	17.00 - 27.00	10.00	15.00	13.00	Shallow
MW-03-21	11/11/2014	1039907.5862	1639187.8169	834.30	834.08	27.25	NA	27.25	17.00 - 27.00	10.00	15.00	13.00	Shallow
MW-04-22	11/10/2014	1039582.7906	1639157.3514	828.05	827.71	25.25	NA	25.25	15.00 - 25.00	10.00	13.00	11.00	Shallow
MW-04-23	11/10/2014	1039562.3922	1639179.0462	826.55	826.27	25.25	NA	25.25	15.00 - 25.00	10.00	13.00	11.00	Shallow
MW-02-24	11/11/2014	1039843.8490	1639083.9636	834.24	833.76	25.25	NA	25.25	15.00 - 25.00	10.00	13.00	11.00	Shallow
MW-09-25	7/13/2015	1039083.6100	1638635.6690	801.84	801.71	20.25	NA	20.25	10.00 - 20.00	10.00	6.90	4.70	Shallow
MW-09-26	2/8/2017	1039384.4120	1638960.5490	818.20	817.91	53.25	35.00	53.25	43.00 - 53.00	10.00	40.90	38.10	Deep
MW-09-27	2/8/2017	1039240.4790	1638944.4180	814.93	814.39	53.25	35.00	53.25	43.00 - 53.00	10.00	40.50	37.20	Deep
MW-09-28	2/7/2017	1039239.5610	1638941.6660	815.10	814.84	35.25	NA	35.25	25.00 - 35.00	10.00	22.00	19.50	Intermediate A
MW-09-29	2/7/2017	1039308.4510	1638881.4750	815.45	815.29	40.25	NA	40.25	25.00 - 40.00	15.00	22.75	20.25	Intermediate A/B
MW-09-30	2/7/2017	1039316.6710	1639025.4790	817.04	816.83	39.50	NA	39.50	24.25 - 39.25	15.00	22.00	19.40	Intermediate A/B
MW-09-31	2/10/2017	1039553.3800	1639047.8700	828.49	828.20	75.25	50.00	75.25	65.00 - 75.00	10.00	62.90	60.60	Deep
MW-09-32	2/10/2017	1039557.8300	1639046.7600	828.38	828.22	45.25	NA	45.25	35.00 - 45.00	10.00	33.00	31.00	Intermediate B

Notes:
Elevations surveyed by Freeland and Associates, Inc., of Greenville, South Carolina.
Elevations expressed in feet above North American Vertical Datum 1988.
TOC = top of casing
ft = feet
msl = mean sea level
bgs = below ground surface
NA = Not available. No casing was constructed during the well installation process.

Prepared By:/Date: LLM 02/16/17
Checked By:/Date: CHB 03/13/17

TABLE 3

Summary of Groundwater Field-Screening Sample Laboratory Analytical Results
Former Vermont Bosch Site
Fountain Inn, South Carolina
Amec Foster Wheeler Project 6251161022.02.03

			Sample ID and Interval																
		SCDHEC	GW-09-02		GW-09-03		GW-09-04			GW-09-05	GW-09-05A			GW-09-06	GW-09-07		GW-09-08		GW-09-09
Constituent	**Units**	**MCL**	26-30'	46-50'	26-30'	46-50'	26-30'	36-40'	46-50'	26-30'	26-30'	36-40'	46-50'	46-50'	26-30'	36-40'	26-30'	36-40'	26-30'
2-Butanone	µg/L	NE[1]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**15**	< 10	< 10	< 10
Acetone	µg/L	NE[2]	< 20	< 20	< 20	< 20	*12J*	*15J*	< 20	< 20	**26**	< 20	< 20	< 20	< 20	*20J*	< 20	< 20	< 20
Methylene Chloride	µg/L	5	*1.0J*	*1.2J*	< 5.0	*1.1J*	*1.0J*	*1.4J*	< 5.0	*1.2J*	< 5.0	< 5.0	< 5.0	*0.93J*	< 5.0	< 5.0	< 5.0	*1.2J*	*1.0J*
PCE	µg/L	5	**3.0**	< 1.0	**2.4**	< 1.0	**130**	**2.6**	< 1.0	< 1.0	< 1.0	< 1.0	**6.9**	*0.99J*	**27**	< 1.0	**3.4**	< 1.0	< 1.0

Notes:
2-Butanone also known as methyl ethyl ketone
Methylene Chloride also known as Dichloromethane
PCE = Tetrachloroethene (perchloroethylene)
µg/L = micrograms per liter
SCDHEC = South Carolina Department of Health and Environmental Control
MCL = Maximum Contaminant Level (South Carolina Primary Drinking Water Regulation R..61-58, October 2014)
[1] = United States Environmental Protection Agency Tap Water Regional Screening Level for 2-Butanone = 5,600 µg/L (May 2016)
[2] = United States Environmental Protection Agency Tap Water Regional Screening Level for Acetone = 14,000 µg/L (May 2016)
Sample intervals reported in feet below ground surface
Italicized values are estimated concentrations (J-Flagged) between laboratory Method Detection Limit (MDL) and Reporting Limit (RL)
Bold values represent concentrations above the laboratory RL
Yellow shaded values indicate concentrations above the MCL

Prepared By/Date: PSJ 08/23/16
Checked By/Date: LLM 10/04/16

TABLE 4

Summary of Groundwater Elevation Data
Former Vermont Bosch Site
Fountain Inn, South Carolina
Amec Foster Wheeler Project 625161022.01.03

Monitoring Well	Date Measured	TOC Elevation (ft, bgs)	Depth to Ground Water (ft, bgs)	Water Table Elevation (ft, msl)	Screen Placement
B-1	02/14/17	834.59	12.82	821.77	Shallow
MW-08-01	02/14/17	833.58	13.76	819.82	Shallow
MW-08-2D	02/14/17	833.80	14.45	819.35	Bedrock
MW-08-03	02/14/17	833.56	14.50	819.06	Shallow
MW-08-04	02/14/17	828.78	9.31	819.47	Shallow
MW-08-05	02/14/17	831.35	11.05	820.30	Shallow
MW-09-06	02/14/17	822.13	13.79	808.34	Shallow
MW-09-07	02/14/17	828.88	18.40	810.48	Shallow
MW-09-08D	02/14/17	828.72	18.92	809.80	Bedrock
MW-09-09	02/14/17	830.93	19.24	811.69	Shallow
MW-09-10	02/14/17	818.00	8.15	809.85	Shallow
MW-09-11	02/14/17	818.14	10.84	807.30	Shallow
MW-09-12D	02/14/17	818.18	11.51	806.67	Bedrock
MW-09-13	02/14/17	815.59	11.27	804.32	Shallow
MW-09-14	02/14/17	814.55	9.49	805.06	Shallow
MW-09-15	02/14/17	814.76	11.03	803.73	Shallow
MW-09-16D	02/14/17	814.83	11.07	803.76	Deep
MW-09-17	02/14/17	813.84	15.14	798.70	Shallow
MW-09-18D	02/14/17	813.76	17.82	795.94	Bedrock
MW-09-19D	02/14/17	828.02	18.76	809.26	Bedrock
MW-03-20	02/14/17	833.81	14.85	818.96	Shallow
MW-03-21	02/14/17	834.08	15.01	819.07	Shallow
MW-04-22	02/14/17	827.71	16.63	811.08	Shallow
MW-04-23	02/14/17	826.27	14.49	811.78	Shallow
MW-02-24	02/14/17	833.76	20.61	813.15	Shallow
MW-09-25	02/14/17	801.71	8.73	792.98	Shallow
MW-09-26	02/14/17	817.91	10.60	807.31	Deep
MW-09-27	02/14/17	814.39	10.81	803.58	Deep
MW-09-28	02/14/17	814.84	11.28	803.56	Intermediate A
MW-09-29	02/14/17	815.29	10.40	804.89	Intermediate A/B
MW-09-30	02/14/17	816.83	12.39	804.44	Intermediate A/B
MW-09-31	02/14/17	828.20	18.59	809.61	Deep
MW-09-32	02/14/17	828.22	18.02	810.20	Intermediate B

Notes:
Water levels measured on February 14, 2017
Elevations expressed in feet above North American Vertical Datum 1988.
TOC = top of casing
ft = feet
bgs = below ground surface
msl = Mean Sea Level

Prepared ByDate: LLM 02/16/17
Checked By/Date: CHB 03/15/17

TABLE 5

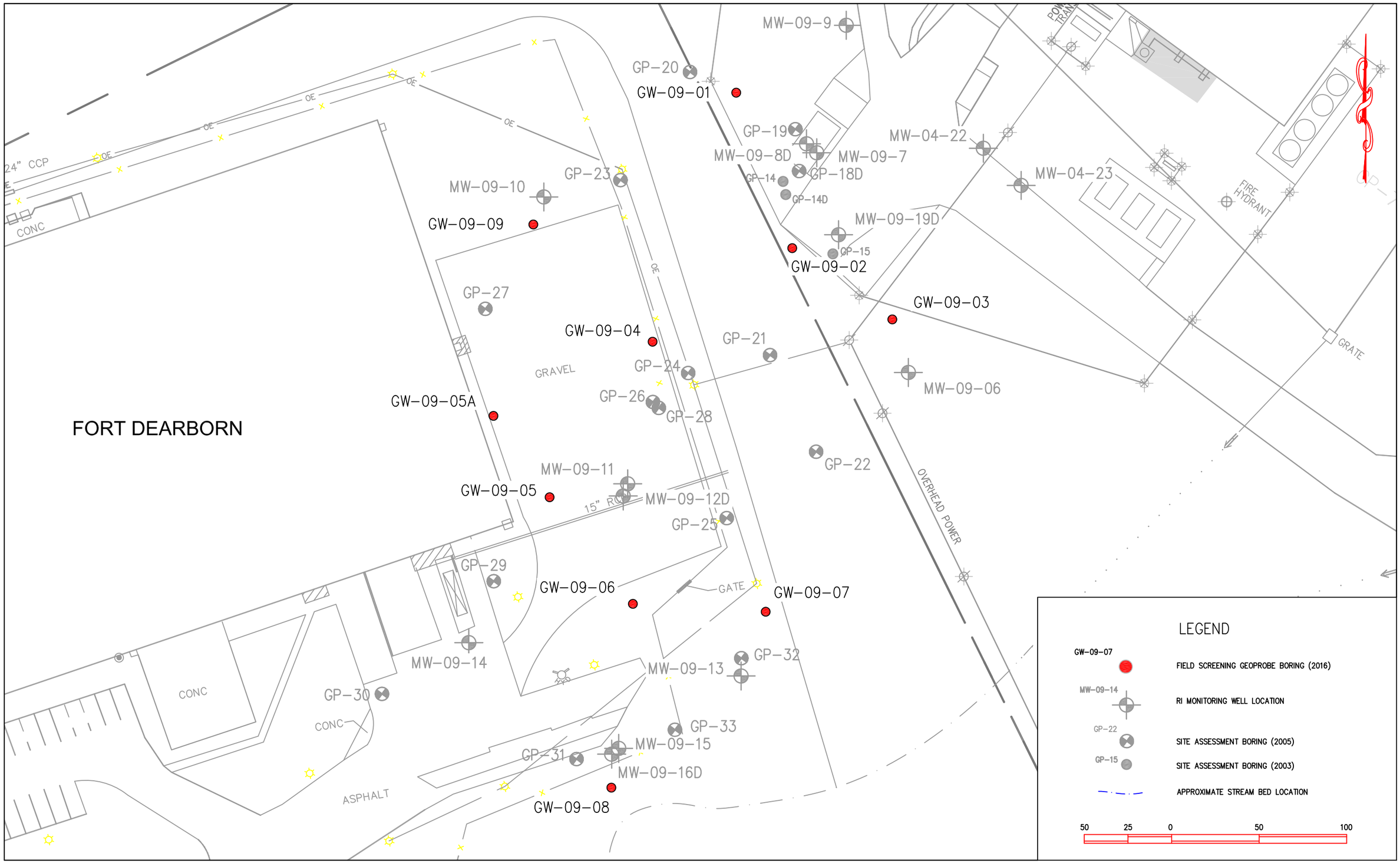
Summary of Monitoring Well Groundwater Sample Laboratory Analytical Results
Former Vermont Bosch Site
Fountain Inn, South Carolina
Amec Foster Wheeler Project 6251161022.02.03

Constituents	Laboratory Method	Units	SCDHEC MCL	MW-09-26 2/14/17	MW-09-27 2/14/17	MW-09-28 2/14/17	MW-09-29 2/14/17	MW-09-30 2/14/17	MW-09-31 2/15/17	MW-09-32 2/15/17
Benzene	8260	µg/L	5	<50	<50	*0.40J*	<1.0	<1.0	<1.0	<1.0
Chloroform	8260	µg/L	80*	**730**	**1100**	2.7U	<1.0	<1.0	1.1U	<1.0
Methylene Chloride	8260	µg/L	5	<250	<250	*2.2J*	<5.0	*2.0J*	<5.0	*1.7J*
Tetrachloroethene	8260	µg/L	5	<50	<50	**1.7**	<1.0	<1.0	<1.0	**30**
Toluene	8260	µg/L	1,000	<50	<50	**1.7**	<1.0	<1.0	<1.0	<1.0

Notes:
µg/L = micrograms per liter
SCDHEC = South Carolina Department of Health and Environmental Control
MCL = Maximum Contaminant Level (State Primary Drinking Water Regulations: R.61-58, October 2014)
* MCL for trihalomethanes
Bold values indicate detections above the Reporting Limit
Italic values are estimated between the Method Detection Limit and Reporting Limit ("J" Flag)
Data Validation Codes: J = value is estimated
U = not detected, value is detection limit
Yellow shaded values exceed MCL

Prepared By/Date: LLM 03/20/17
Checked By/Date: PSJ 03/28/17

FIGURES

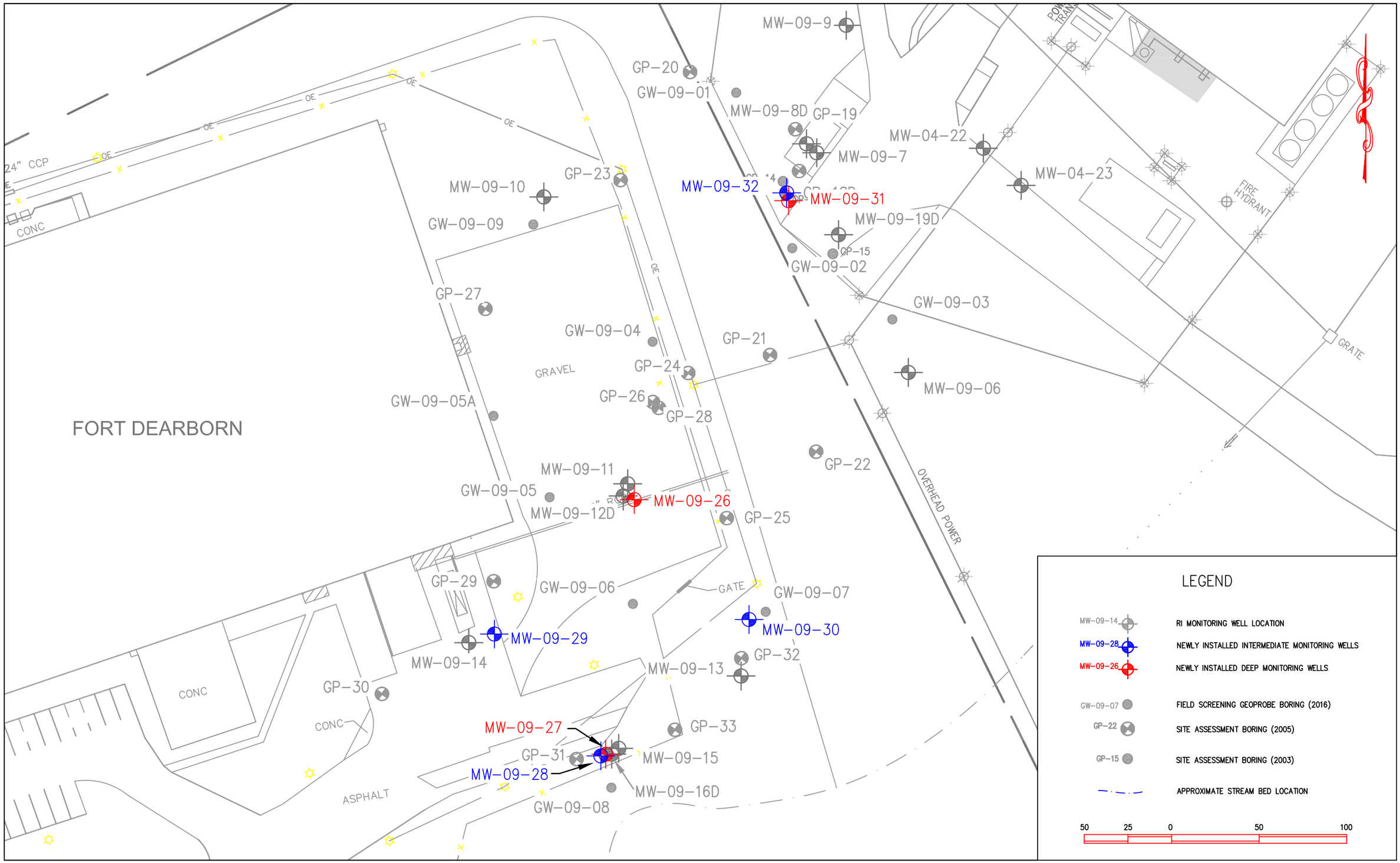


DRAWN BY: CHB	DATE: 09/01/16	REVISIONS	
CHECKED BY: LLM	DATE: 09/30/16	No. / DESCRIPTION / BY	
PROJECT NO: 6251161022.02.03			

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

FIELD SCREENING BORING LOCATIONS
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 1



DRAWN BY:	CHB	DATE:	03/09/17
CHECKED BY:	PSJ	DATE:	03/28/17
PROJECT NO:	6251161022.02.03		

REVISIONS		
No.	DESCRIPTION	BY

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

SITE MONITORING WELL LOCATION MAP
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE
2

FORT DEARBORN

MW-09-9
GP-20
GW-09-01
74
GP-19
(49)
MW-09-8D
78
MW-09-7
GP-18D
(54)
MW-04-22
MW-04-23
MW-09-32
MW-09-31
75.25
MW-09-19D
71
GP-15
GW-09-02
52
GW-09-03
49.5
MW-09-10
GP-23
GW-09-09
43
GP-27
GW-09-04
49.5
GP-21
GP-24
(45)
MW-09-06
GW-09-05A
50
GP-26
GP-28
(49)
GP-22
MW-09-11
GW-09-05
MW-09-26
53.25
MW-09-12D
54
GP-25
GP-29
GW-09-06
53
GW-09-07
43
MW-09-30
MW-09-29
MW-09-14
GP-32
MW-09-13
GP-30
GP-33
MW-09-27
53.25
GP-31
MW-09-15
MW-09-16D
53
MW-09-28
GW-09-08
41

60
50
40
50
40

CONC
24" CCP
OE
GRAVEL
CONC
ASPHALT
GATE
OVERHEAD POWER
FIRE HYDRANT
GRATE

LEGEND

- ISOPACH CONTOUR (estimated saprolite thickness in feet)
- MW-09-14 — RI MONITORING WELL LOCATION
- MW-09-28 — NEW INTERMEDIATE MONITORING WELL LOCATION
- MW-09-31 — NEW DEEP MONITORING WELL LOCATION
- GW-09-07 — FIELD SCREENING GEOPROBE BORING (2016)
- GP-22 — SITE ASSESSMENT BORING (2004)
- GP-15 — SITE ASSESSMENT BORING (2003)
- 43 — GEOPROBE REFUSAL/TOP OF BEDROCK (FEET BGS) (2016/2017)
- (43) — GEOPROBE REFUSAL/TOP OF BEDROCK (FEET BGS) (2004)
- APPROXIMATE STREAM BED LOCATION

50 25 0 50 100

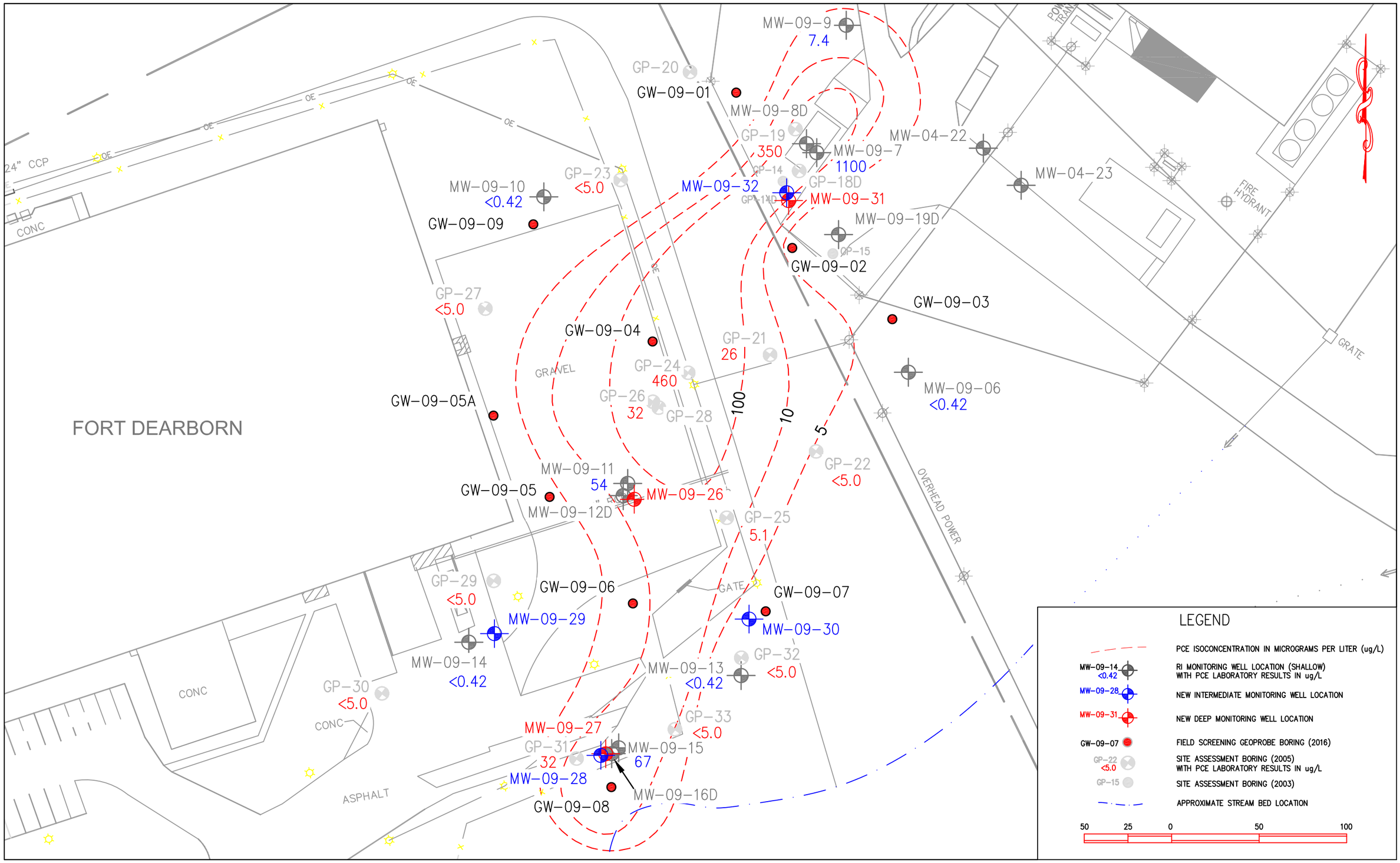
DRAWN BY:	PSJ	DATE:	03/29/17
CHECKED BY:	CHB	DATE:	6/23/17
PROJECT NO:	6251161022.02.03		

REVISIONS		
No.	DESCRIPTION	BY

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

OVERBURDEN (SAPROLITE) ISOPACH (THICKNESS) CONTOUR MAP
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 3



LEGEND

- PCE ISOCONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- MW-09-14 <0.42 — RI MONITORING WELL LOCATION (SHALLOW) WITH PCE LABORATORY RESULTS IN ug/L
- MW-09-28 — NEW INTERMEDIATE MONITORING WELL LOCATION
- MW-09-31 — NEW DEEP MONITORING WELL LOCATION
- GW-09-07 — FIELD SCREENING GEOPROBE BORING (2016)
- GP-22 <5.0 — SITE ASSESSMENT BORING (2005) WITH PCE LABORATORY RESULTS IN ug/L
- GP-15 — SITE ASSESSMENT BORING (2003)
- APPROXIMATE STREAM BED LOCATION

50 25 0 50 100

DRAWN BY:	PSJ	DATE:	03/28/17
CHECKED BY:	CHB	DATE:	6/23/17
PROJECT NO:	6251161022.02.03		

REVISIONS		
No.	DESCRIPTION	BY

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

SHALLOW ZONE PCE ISOCONCENTRATION CONTOUR
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 4

FORT DEARBORN

MW-09-9
GP-20
<5.0
GW-09-01
MW-09-8D
GP-19
MW-04-22
MW-09-7
GP-14
GP-18D
MW-04-23
MW-09-32
GP-14D
MW-09-31
MW-09-10
GP-23
GW-09-09
<1.0
MW-09-19D
GP-15
GW-09-02
3.0
GW-09-03
2.4
GP-27
GW-09-04
130
GP-21
GP-24
GRAVEL
MW-09-06
GP-26
GW-09-05A
<1.0
GP-28
100
10
5
GP-22
MW-09-11
GW-09-05
<1.0
MW-09-26
15" RCP
MW-09-12D
GP-25
GP-29
GW-09-06
GATE
GW-09-07
27
MW-09-30
<1.0
MW-09-29
<1.0
MW-09-14
MW-09-13
GP-30
GP-33
MW-09-27
MW-09-15
GP-31
MW-09-16D
MW-09-28
1.7
GW-09-08
3.4
ASPHALT
CONC
24" CCP
OE
OVERHEAD POWER
FIRE HYDRANT
GRATE

LEGEND

- PCE ISOCONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- MW-09-14 — RI MONITORING WELL LOCATION (SHALLOW)
- MW-09-28 <5.0 — NEW INTERMEDIATE MONITORING WELL LOCATION WITH PCE LABORATORY RESULTS IN ug/L
- MW-09-31 — NEW DEEP MONITORING WELL LOCATION
- GW-09-07 27 — FIELD SCREENING GEOPROBE BORING (2016) WITH PCE LABORATORY RESULTS IN ug/L
- GP-20 <5.0 — SITE ASSESSMENT BORING (2005) WITH PCE LABORATORY RESULTS IN ug/L
- GP-15 — SITE ASSESSMENT BORING (2003)
- APPROXIMATE STREAM BED LOCATION

50 25 0 50 100

DRAWN BY:	PSJ	DATE:	03/28/17
CHECKED BY:	CHB	DATE:	6/23/17
PROJECT NO:	6251161022.02.03		

REVISIONS		
No.	DESCRIPTION	BY

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

INTERMEDIATE ZONE A PCE ISOCONCENTRATION CONTOUR
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 5

FORT DEARBORN

MW-09-9
GP-20
GW-09-01
MW-09-8D
GP-19
MW-04-22
MW-09-7
GP-18D
MW-04-23
MW-09-10
GP-23
MW-09-32
30
GP-14
GP-14D
MW-09-31
GW-09-09
MW-09-19D
GP-15
GW-09-02
GW-09-03
GP-27
5
GW-09-04
2.6
GP-21
GP-24
GRAVEL
MW-09-06
GP-26
GP-28
GW-09-05A
<1.0
GP-22
MW-09-11
GW-09-05
MW-09-26
MW-09-12D
GP-25
GP-29
GW-09-06
GW-09-07
<1.0
MW-09-30
<1.0
MW-09-29
<1.0
MW-09-14
MW-09-13
GP-30
CONC
MW-09-27
GP-33
GP-31
MW-09-15
MW-09-16D
MW-09-28
ASPHALT
GW-09-08
<1.0
24" CCP
CONC
OE
15" RCP
GATE
OVERHEAD POWER
FIRE HYDRANT
GRATE

LEGEND

- PCE ISOCONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- MW-09-14 — RI MONITORING WELL LOCATION (SHALLOW)
- MW-09-14 <1.0 — NEW INTERMEDIATE MONITORING WELL LOCATION WITH PCE LABORATORY RESULTS IN ug/L
- MW-09-14 — NEW DEEP MONITORING WELL LOCATION
- GW-09-07 27 — FIELD SCREENING GEOPROBE BORING (2016) WITH PCE LABORATORY RESULTS IN ug/L
- GP-22 — SITE ASSESSMENT BORING (2005)
- GP-15 — SITE ASSESSMENT BORING (2003)
- APPROXIMATE STREAM BED LOCATION

50 25 0 50 100

DRAWN BY:	PSJ	DATE:	03/28/17
CHECKED BY:	CHB	DATE:	6/23/17
PROJECT NO:	6251161022.02.03		

REVISIONS		
No.	DESCRIPTION	BY

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

INTERMEDIATE ZONE B PCE ISOCONCENTRATION CONTOUR MAP
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 6

FORT DEARBORN

MW-09-9
GP-20
GW-09-01
MW-09-8D
GP-19
MW-04-22
MW-09-7
GP-14
GP-18D
GP-14D
MW-04-23
MW-09-32
MW-09-31
<1.0
MW-09-19D
GP-15
GW-09-02
<1.0
GW-09-03
<1.0
MW-09-06
GP-21
GP-22
MW-09-10
GP-23
GW-09-09
GP-27
5
GW-09-04
<1.0
GP-24
7.2
GP-26
GP-28
<5.0
GW-09-05A
6.9
MW-09-11
GW-09-05
MW-09-26
<50
MW-09-12D
GP-25
GP-29
GW-09-06
0.99J
GW-09-07
MW-09-30
MW-09-29
MW-09-14
GP-32
MW-09-13
GP-30
MW-09-27
<50
GP-33
GP-31
MW-09-15
MW-09-28
MW-09-16D
GW-09-08
24" CCP
CONC
OE
GRAVEL
15" RCP
GATE
OVERHEAD POWER
FIRE HYDRANT
GRATE
ASPHALT

LEGEND

- PCE ISOCONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- MW-09-14 — RI MONITORING WELL LOCATION (SHALLOW)
- MW-09-28 — NEW INTERMEDIATE MONITORING WELL LOCATION
- MW-09-31 <1.0 — NEW DEEP MONITORING WELL LOCATION WITH PCE LABORATORY RESULTS IN ug/L
- GW-09-07 27 — FIELD SCREENING GEOPROBE BORING (2016) WITH PCE LABORATORY RESULTS IN ug/L
- GP-18D <5.0 — SITE ASSESSMENT BORING (2005) WITH PCE LABORATORY RESULTS IN ug/L
- GP-15 — SITE ASSESSMENT BORING (2003)
- APPROXIMATE STREAM BED LOCATION

50 25 0 50 100

DRAWN BY:	PSJ	DATE:	03/29/17
CHECKED BY:	CHB	DATE:	6/23/17
PROJECT NO:	6251161022.02.03		

REVISIONS

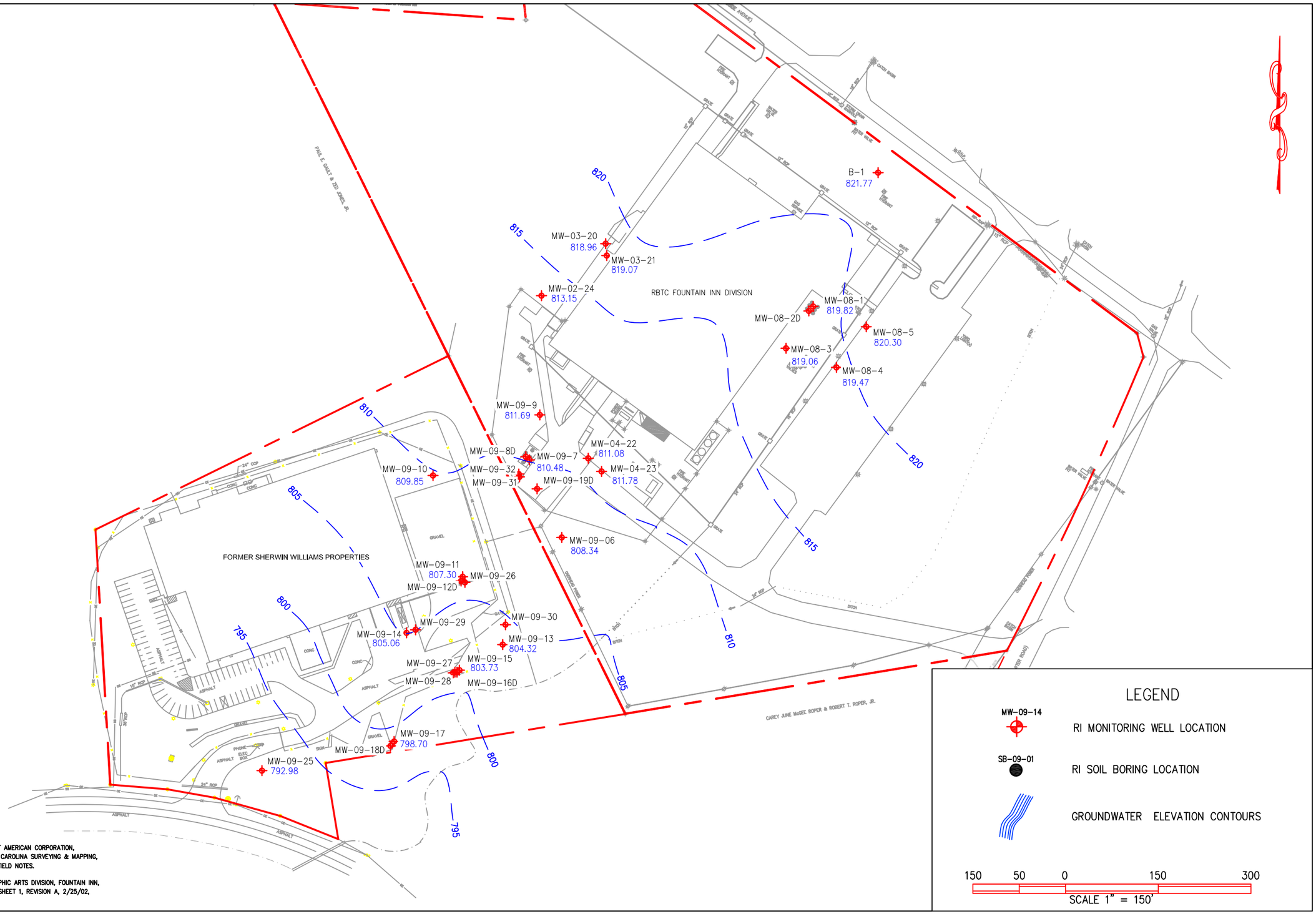
No.	DESCRIPTION	BY

amec foster wheeler

400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

DEEP PCE ISOCONCENTRATION CONTOUR MAP
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 7



REFERENCES:

1. BOUNDARY AND AS-BUILT SURVEY FOR VERMONT AMERICAN CORPORATION, FOUNTAIN INN DIVISION, 8/24/01, PREPARED BY CAROLINA SURVEYING & MAPPING, AND MACTEC ENGINEERING & CONSULTING, INC. FIELD NOTES.
2. SAMPLE LOCATION MAP, SHERMAN WILLIAMS GRAPHIC ARTS DIVISION, FOUNTAIN INN, SOUTH CAROLINA, DRAWING NUMBER 63102-F2, SHEET 1, REVISION A, 2/25/02, PREPARED BY THE FLETCHER GROUP.

LEGEND

MW-09-14 — RI MONITORING WELL LOCATION

SB-09-01 — RI SOIL BORING LOCATION

GROUNDWATER ELEVATION CONTOURS

150 50 0 150 300

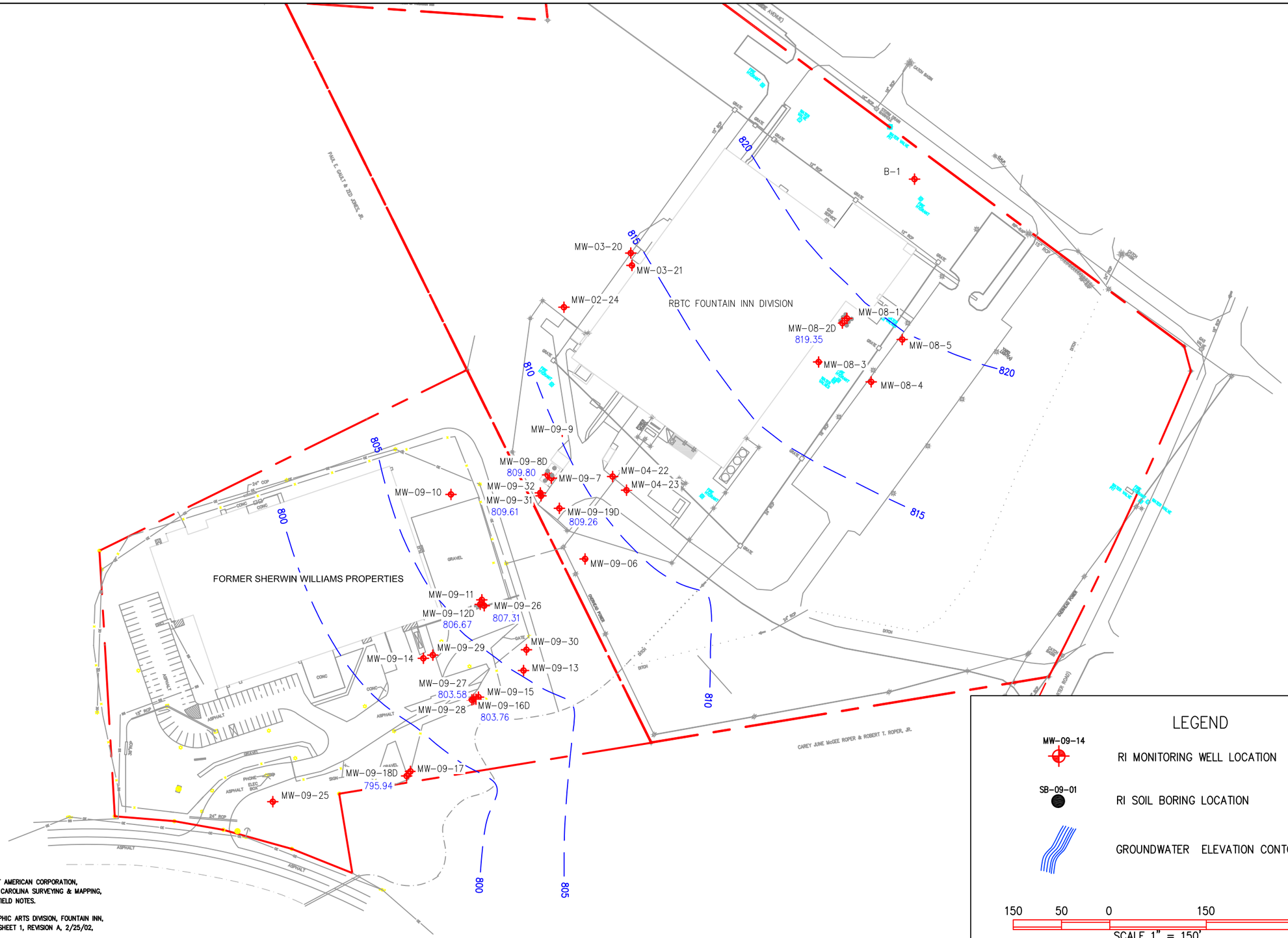
SCALE 1" = 150'

DRAWN BY: PSJ	DATE: 03/28/17	REVISIONS	
CHECKED BY: CHB	DATE: 6/23/17	No. / DESCRIPTION / BY	
PROJECT NO: 6251161022.02.03			

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

WATER TABLE ELEVATION CONTOUR MAP
FEBRUARY 14, 2017
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 8

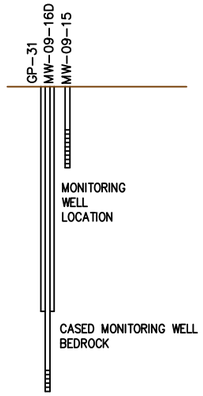


DRAWN BY: PSJ	DATE: 03/28/17	REVISIONS	
CHECKED BY: CHB	DATE: 6/23/17	No. / DESCRIPTION / BY	
PROJECT NO: 6251161022.02.03			

amec foster wheeler
400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

TOP OF ROCK/BEDROCK GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 14, 2017
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 9



FILL MATERIAL (silty and clay)

SAND AND SILT UNIT (Saprolite) (silty sand to a clayey sand)

BEDROCK (based on Geoprobe Refusal)

GROUNDSURFACE

SURFACE WATER

SW-09-06 20 — SURFACE WATER SAMPLE LOCATION (November 2014) TETRACHLORETHENE (PCE) CONCENTRATION IN MICROGRAMS PER LITER (ug/L)

1,100 — MONITORING WELL PCE CONCENTRATION (ug/L) SAMPLED JANUARY 2015 OR JULY 2015

<50 — MONITORING WELL PCE CONCENTRATION (ug/L) SAMPLED FEBRUARY 2017

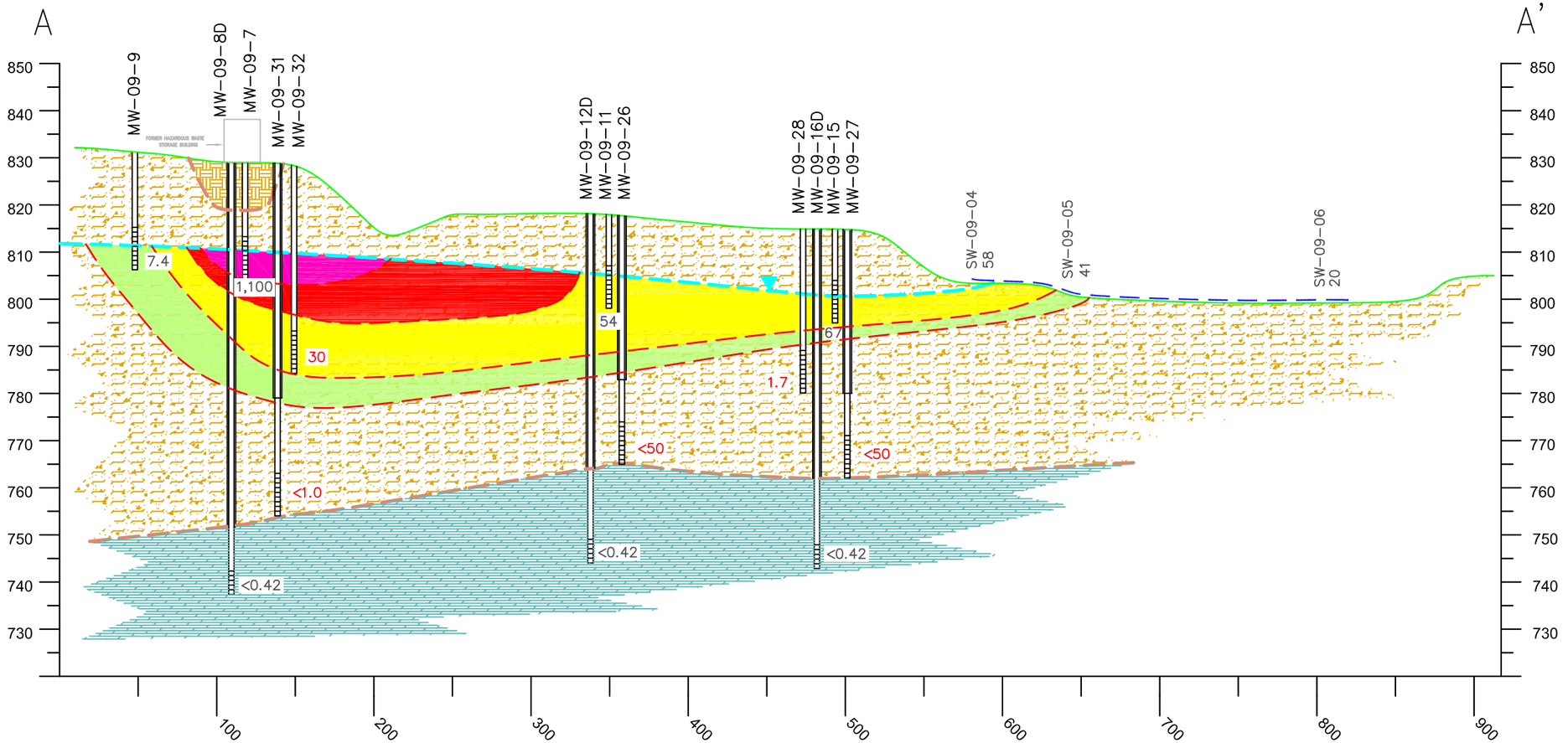
PCE CONCENTRATION CONTOUR

GROUNDWATER SURFACE FEBRUARY 2017

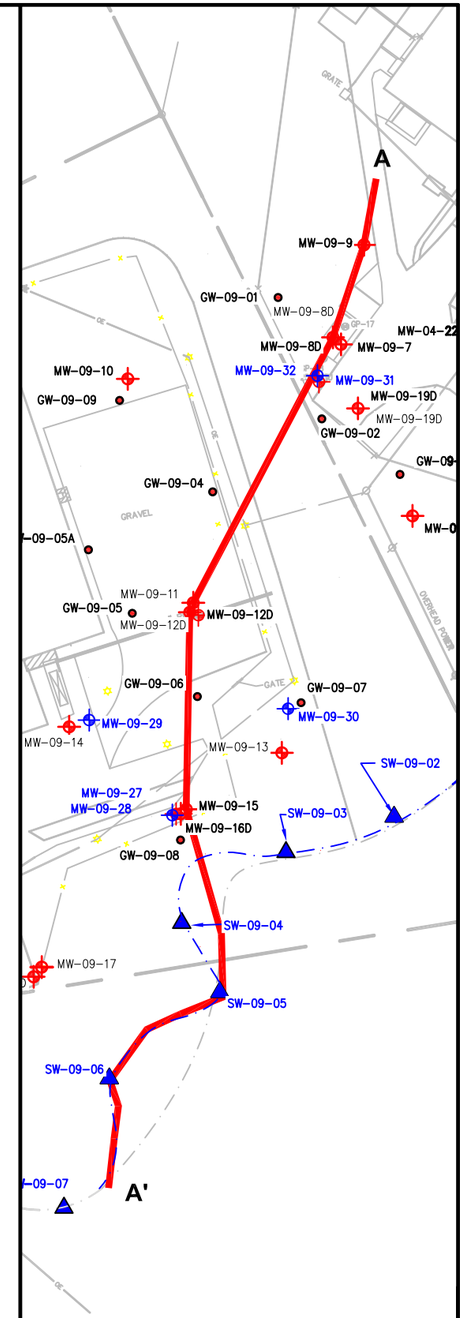
PCE CONCENTRATION (ug/L)

- 1,000 +
- 100-1,000
- 10-100
- 5.0-10

A



A'



DRAWN BY: CHB	DATE: 06/22/17	REVISIONS			
CHECKED BY: TSR	DATE: 06/22/17	No.	DESCRIPTION	BY	
PROJECT NO: 6251161022.02.03					

amec foster wheeler

400 EXECUTIVE CENTER DRIVE
SUITE 200
GREENVILLE, S.C. 29615
Phone: (864) 458-3600
Fax: (864) 458-3700

LITHOLOGIC CROSS-SECTION A-A'
FORMER VERMONT BOSCH SITE/FORT DEARBORN PROPERTY
FOUNTAIN INN, SOUTH CAROLINA

FIGURE 10

APPENDICES

APPENDIX A

SCDHEC CORRESPONDENCE

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

April 20, 2016

Aromake Afiegbe
Robert Bosch Tool Corporation
1800 West Central Road
Mount Prospect, IL 60056

Re: Remedial Investigation Report
Former Vermont Bosch Site
Fountain Inn, South Carolina
VCC # 05-5613-RP

Dear Mr. Afiegbe,

The South Carolina Department of Health and Environmental Control (the Department) has reviewed the above referenced Remedial Investigation (RI) Report. Before proceeding to the Feasibility Study (FS), the Department requests that additional groundwater sampling be completed at the intermediate depth in the area of the defined plume. Specifically, intermediate depth groundwater sampling should be completed down gradient from MW-09-7 and MW-09-11 in order to further delineate the vertical presence of the plume.

A Work Plan for the above requested sampling should be submitted to the Department by June 6, 2016. Please contact me at 803.898.0759 or at ramaglcj@dhec.sc.gov if you have any questions.

Sincerely,

Christopher J. Ramaglia
Environmental Engineer Associate
Bureau of Land & Waste Management
State Remediation Section
803.898.0759

CC: R. Gary Stewart, BLWM
Natalie Kirkpatrick, Area Director, Greenville EQC office, Upstate
Paul S. Johnstone, P.G., AMEC Foster Wheeler plc
File # 52309

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

June 15, 2016

Aromake Afiegbe
Robert Bosch Tool Corporation
1800 West Central Road
Mount Prospect, IL 60056

RE: Field Sampling and Analysis Plan for Additional Groundwater Investigation
Former Vermont Bosch Site
Fountain Inn, South Carolina
VCC # 05-5613-RP

Dear Mr. Afiegbe:

The South Carolina Department of Health and Environmental Control (Department) has reviewed the above referenced Field Sampling and Analysis Plan for Additional Groundwater Investigation. The Department approves the report based on the information provided in the June 3, 2016 submittal. Please notify the Department five days before beginning work on site.

After June 15, 2016, I will no longer be the Department contact for this project. Future correspondence should be directed to my supervisor, R. Gary Stewart, P.E.

If you have any questions or comments, Mr. Stewart can be reached at (803) 898-0778 or stewarrg@dhec.sc.gov.

Sincerely,

Christopher J. Ramaglia, Project Manager
State Remediation Section
Bureau of Land & Waste Management

CC: R. Gary Stewart, BLWM
Natalie Kirkpatrick, Area Director, Greenville EQC office, Upstate
Paul S. Johnstone, P.G., AMEC Foster Wheeler plc
File # 52309

dhec
Healthy People. Healthy Communities.

January 11, 2017

Aromake Afiegbe
Robert Bosch Tool Corporation
1800 West Central Road
Mount Prospect, IL 60056

Re: Report of Groundwater Field Screening
Former Vermont Bosch Site
Fountain Inn, South Carolina
VCC # 05-5613-RP

Dear Mr. Afiegbe,

The South Carolina Department of Health and Environmental Control (the Department) has reviewed and approves the Report of Groundwater Field Screening, dated November 11, 2016. The Department approves the installation of the additional monitoring wells as outlined in the Report and has attached a Monitoring Well Installation Permit.

Please contact the Department at least 5 days prior to the start of field activities. If you have any questions or comments please contact me at (803)898-0747 or at berresjl@dhec.sc.gov.

Sincerely,

Lucas Berresford
Project Manager
Bureau of Land & Waste Management
State Remediation Section

CC: R. Gary Stewart, BLWM
Natalie Kirkpatrick, Area Director, Greenville EQC office, Upstate
File # 52309

Healthy People. Healthy Communities.

Monitoring Well Approval

Date of Issuance: **January 11, 2017** **Approval #:** **MW- 10963**

Approval is hereby granted to: Paul Johnstone P.G.
AMEC
37 Villa Road Suite 201
Greenville, SC 29615

Facility: Former Vermont Bosch Site
Fountain Inn, South Carolina
File # 52309

This approval is for the installation of 7 groundwater monitoring wells. The monitoring wells are to be installed in the locations as illustrated in the November 11, 2016 Report of Groundwater Field Screening. And consistent with the well construction details in the Sampling and Analysis Plan. Monitoring wells are to be installed following all of the applicable requirements of R.61-71.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All wells shall be properly developed per R.61-71.H.2.d. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

3. All analytical data and water levels obtained from each monitoring well shall be submitted to the author of this approval within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

4. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

5. If any of the information provided to the Department changes, including the proposed

drilling date, the Author (PM Phone Number) shall be notified at least twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards, dated April 26, 2002.

Lucas Berresford
State Remediation Section
Bureau of Land and Waste Management

APPENDIX B

MONITORING WELL CONSTRUCTION DIAGRAMS

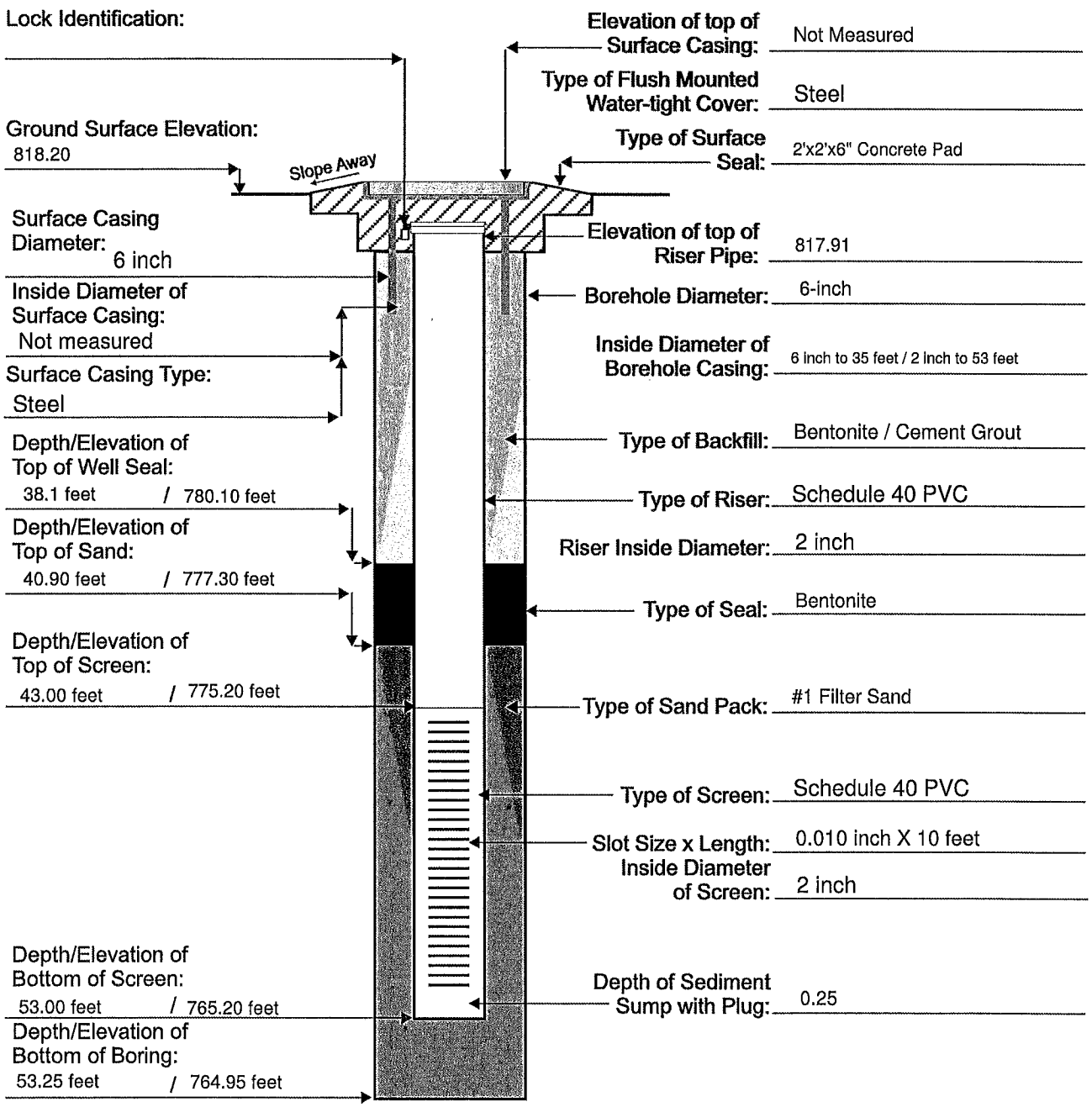
AND

SCDHEC FORM 1903

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-26

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER/MUD ROTARY	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/6/17	**Completed:** 2/8/17



Not To Scale

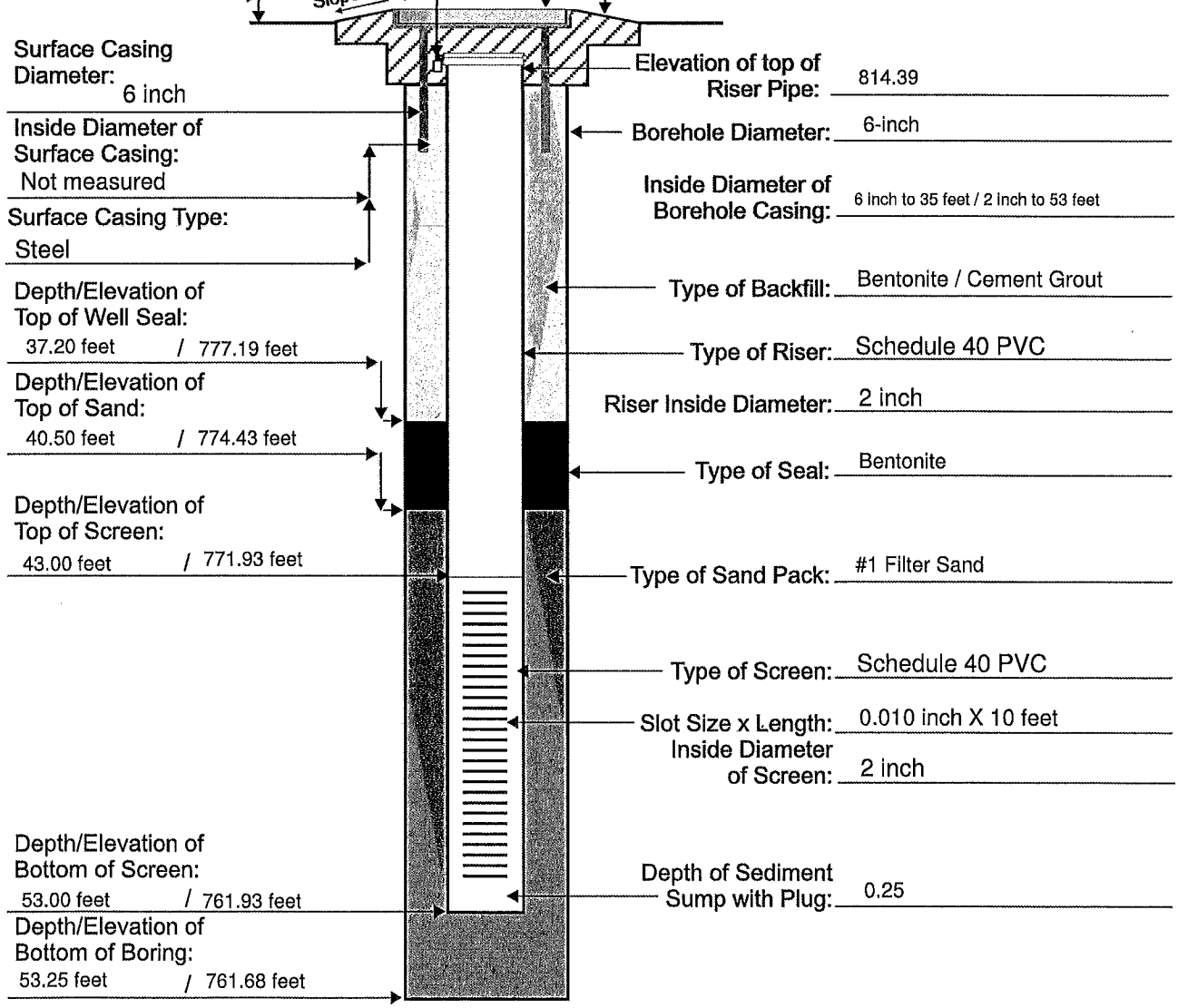
Graphics\Misc.\Forms

AMEC FW E&I, INC.

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-27

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER/MUD ROTARY	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/6/17	**Completed:** 2/8/17



Not To Scale

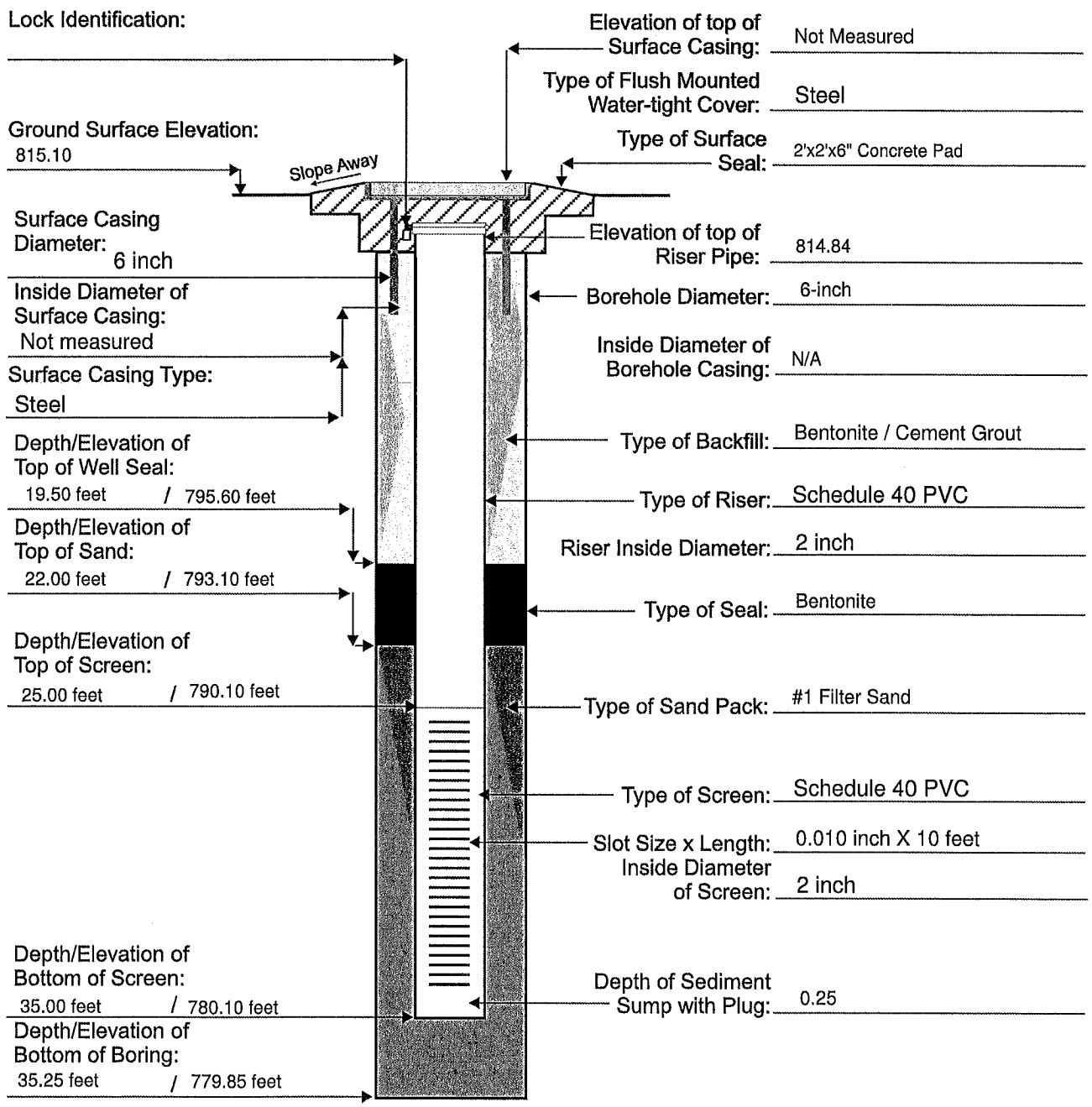
AMEC FW E&I, INC.

Graphics\Misc.\Forms

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-28

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER	
Checked By: ZACH DOWNES	**Date:** 3/29/17	**Date Started:** 2/7/17	**Completed:** 2/7/17



Not To Scale

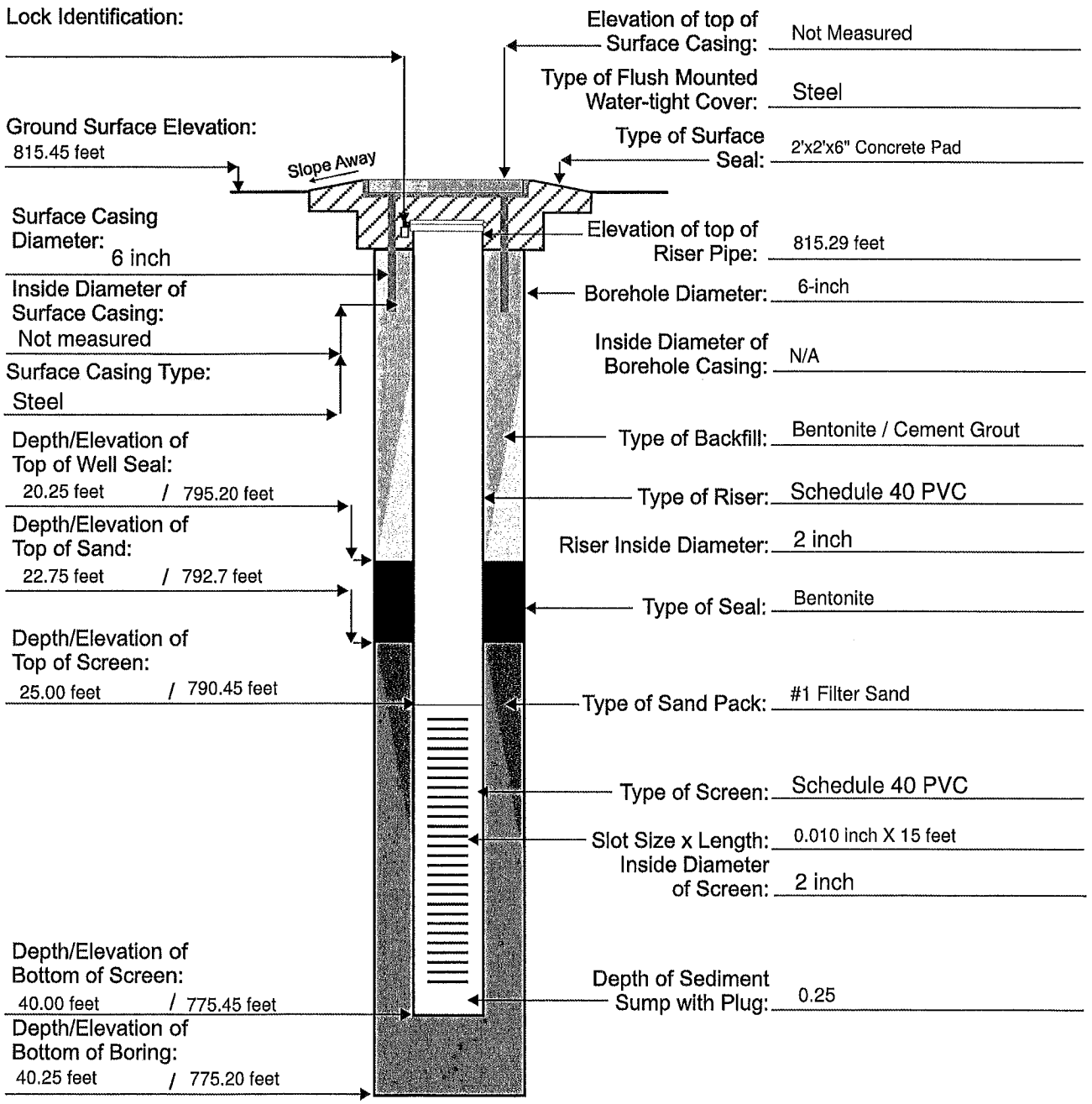
AMEC FW E&I, INC.

Graphics\Misc.\Forms

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-29

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/7/17	**Completed:** 2/7/17



Not To Scale

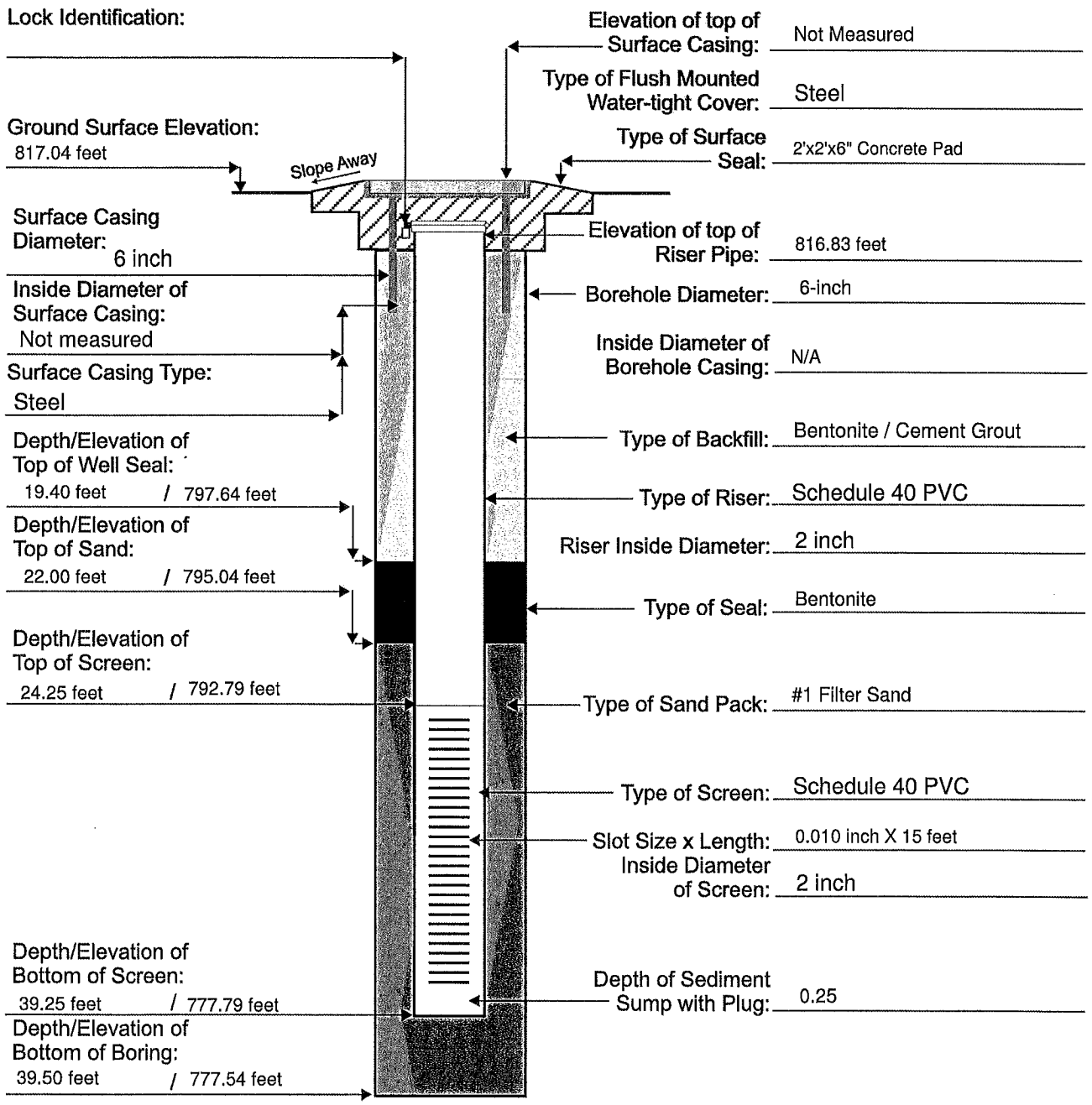
AMEC FW E&I, INC.

Graphics\Misc.\Forms

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-30

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/7/17	**Completed:** 2/7/17



Not To Scale

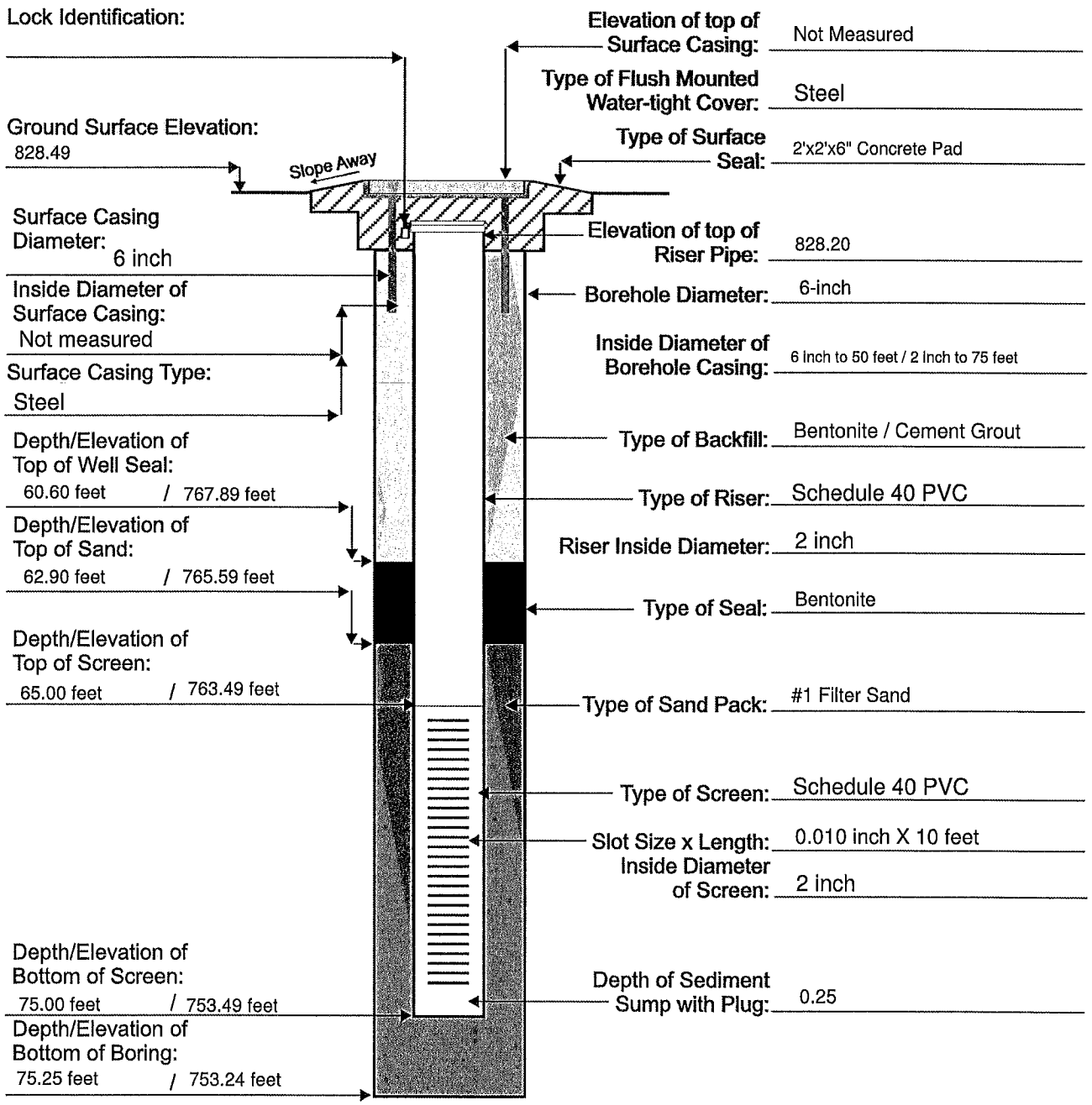
AMEC FW E&I, INC.

Graphics\Misc.\Forms

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-31

Project No.: 625161022.01.03	**Project Name:** RBTC - FOUNTAIN INN		
	Project Area: AOC-09		
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER/MUD ROTARY	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/9/17	**Completed:** 2/10/17



Not To Scale

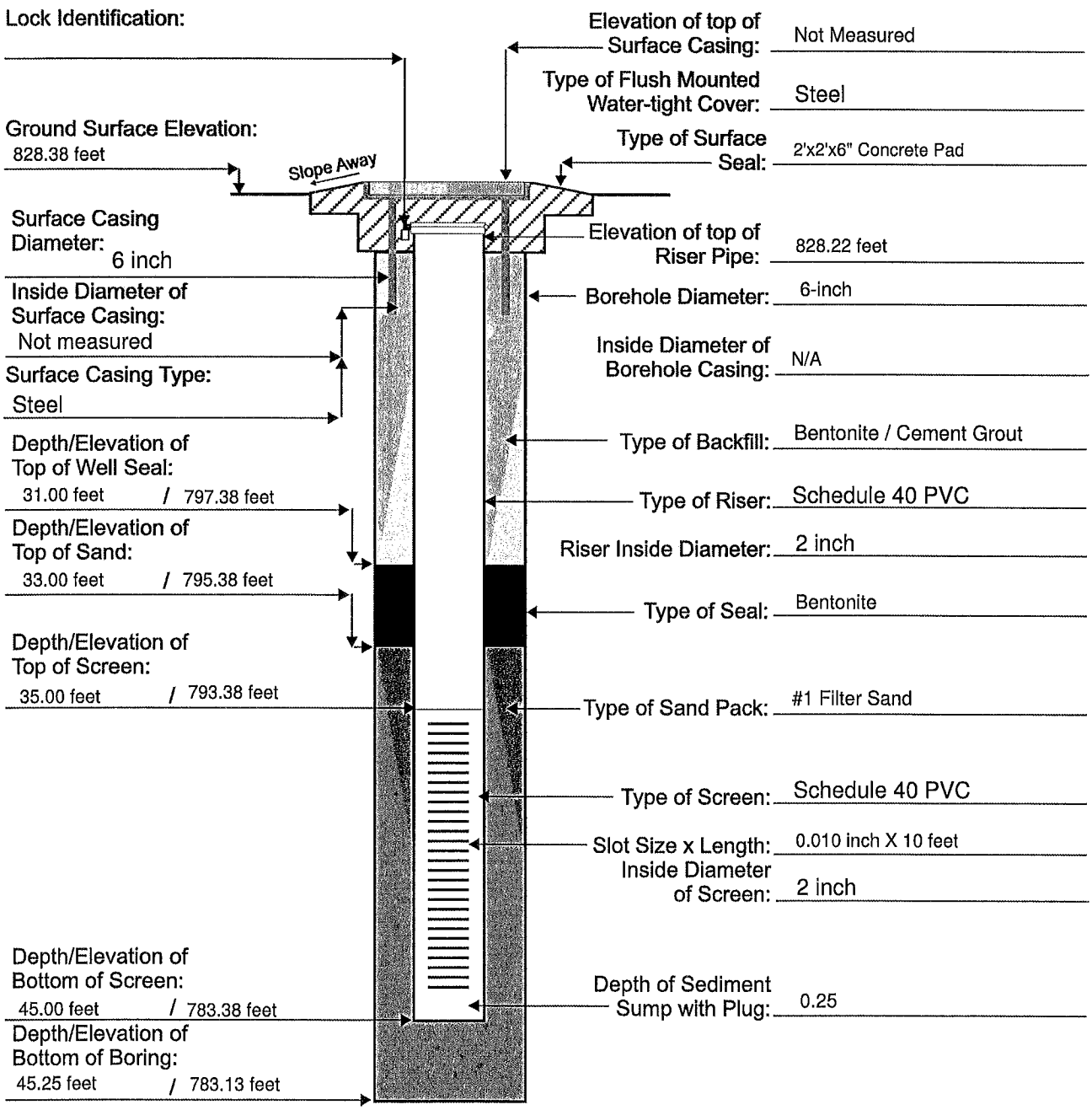
AMEC FW E&I, INC.

Graphics\Misc.\Forms

Monitoring Well Log (Flush Mount Type)

Well No.: MW-09-32

Project No.: 625161022.01.03		**Project Name:** RBTC - FOUNTAIN INN	
		Project Area: AOC-09	
Contractor: A.E. DRILLING	**Driller:** T.J. Creasman	**Driller Certification No.:** 2116	
Logged By: LORI MAULDIN		**Method:** HOLLOW STEM AUGER	
Checked By: ZACH DOWNES	**Date:** 3-29-17	**Date Started:** 2/10/17	**Completed:** 2/10/17



Not To Scale

AMEC FW E&I, INC.

Graphics\Misc.\Forms

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: Fort Dearborn
Street Address: 100 N. Woods Drive
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-26
Bentonite seal 38.1-40.9' bgs

6. TYPE: ☑ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 53 ft. Date Started: 2-6-17 Date Completed: 2-8-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 6"/2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 35 ft. depth
2 in. to 43 ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10 feet
Set Between: 43 ft. and 53 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 40.9 ft. to 53.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 38.1 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: Fort Dearborn
Street Address: 100 N. Woods Drive
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-27
Bentonite seal 37.2-40.5' bgs

6. TYPE: ☑ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 53 ft. Date Started: 2-6-17 Date Completed: 2-8-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 6"/2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 35 ft. depth
2 in. to 43 ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10 feet
Set Between: 43 ft. and 53 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 40.5 ft. to 53.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 37.2 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: Fort Dearborn
Street Address: 100 N. Woods Drive
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-28
Bentonite seal 19.5-22' bgs

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 35 ft. Date Started: 2-7-17 Date Completed: 2-7-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 25 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10 feet
Set Between: 25 ft. and 35 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 22 ft. to 35.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 19.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: Fort Dearborn
Street Address: 100 N. Woods Drive
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-29
Bentonite seal 20.25-22.75' bgs

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 40 ft. Date Started: 2-7-17 Date Completed: 2-7-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 25 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 15 feet
Set Between: 25 ft. and 40 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 22.75 ft. to 40.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 20.25 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: Fort Dearborn
Street Address: 100 N. Woods Drive
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-30
Bentonite seal 19.4-22' bgs

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 39.25 ft. Date Started: 2-7-17 Date Completed: 2-7-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 24.25 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 15 feet
Set Between: 24.25 ft. and 39.25 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 22 ft. to 39.5 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 19.4 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: SC Plastics
Street Address: 800 Woodside Avenue
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-31
Bentonite seal 60.6-62.9' bgs

6. TYPE: ☑ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 75 ft. Date Started: 2-9-17 Date Completed: 2-10-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 6"/2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 50 ft. depth
2 in. to 65 ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10 feet
Set Between: 65 ft. and 75 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 62.9 ft. to 75.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 60.6 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Robert Bosch Tool Corporation (last) (first)
Address: 1800 West Central Road
City: Mount Prospect State: IL Zip: 60056-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Greenville
Name: SC Plastics
Street Address: 800 Woodside Avenue
City: Fountain Inn Zip: 29644-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-09-32
Bentonite seal 31-33' bgs

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: MW-10963

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45 ft. Date Started: 2-10-17 Date Completed: 2-10-17

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 35 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10 feet
Set Between: 35 ft. and 45 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 33 ft. to 45.25 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From ground surface ft. to 31 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Terry R. Creasman Jr. **CERT. NO.:** 2116
Address: (Print) 30 Grant Park Place, Piedmont, SC 29673
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 864-288-1986 Fax No.: 864-288-2272

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 2/21/17

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

APPENDIX C

FIELD DATA RECORDS

Well Development Record

Well No.: MW-09-26D

Project No.: 60251116.1022	Logged By: Lori Mauldin		
Client Name: RBTC	Project Name: Fountain Inn		Checked By: L
Well Installation Date:		Start Date:	Finish Date:
Well Development Date: 2-9 & 2-10-17		Start Time: 1225	Finish Time:
Initial Water Level (ft.): 10.46			
Water Level during **Initial** Pumping/Purging (ft).:			
Water Level at **Termination** of Pumping/Purging (ft).:			
Weather:			

Height of Water Column: _____ (ft.)

_____ 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

Gallons Number of Well Volumes:	Time:	Temperature:	pH:	Conductivity:	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
2-9 40 gallons - Surge + purged (surged 4 times)						
2-10 50	1235	18.7	11.52	567.2		28.3
60	1245	18.6	11.02	333.1		28.1
70	1300	18.7	10.39	254.2		13.9
75	1305	18.6	10.25	242.1		8.32
80	1310	18.6	10.19	240.4		7.65

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Lori Mauldin

Well Development Record

Well No.: MW-09-27D

Project No.: 625116.022	Logged By: Lori Mauldin		
Client Name: RBTC	Project Name: Fountain Inn		Checked By:
Well Installation Date:		Start Date:	Finish Date:
Well Development Date: 2-10-17		Start Time: ~~9:40~~ 1035	Finish Time:
Initial Water Level (ft.): 9.40 TOC			
Water Level during **Initial** Pumping/Purging (ft).:			
Water Level at **Termination** of Pumping/Purging (ft).:			
Weather: Cold, clear			

Height of Water Column: _____ (ft.)

_____ 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

Gallons ~~Number of Well Volumes~~:	Time:	Temperature:	pH:	Conductivity: us/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0	Surge + pump on		30 minutes		1.0	
40	1105	16.7	10.64	~~485~~ 518.1		23.1
45	1110	17.5	10.64	518.0		21.9
50	1115	17.4	10.72	490.1		20.7
55	1120	17.4	10.70	494.3		21.4

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Lori Mauldin

Well Development Record

Well No.: MW-09-28

Project No.: 60251161022	Logged By: Lori Mauldin	
Client Name: RBTC	Project Name: Fountain Inn	Checked By:
Well Installation Date:	Start Date:	Finish Date:
Well Development Date: 2-10-17	Start Time:	Finish Time:
Initial Water Level (ft.): 11.60 TOC		
Water Level during **Initial** Pumping/Purging (ft).:		
Water Level at **Termination** of Pumping/Purging (ft).:		
Weather: Cold, clear		

Height of Water Column: 3.74 (ft.)
x 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

Gallons Number of Well Volumes:	Time:	Temperature:	pH:	Conductivity:	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
20		Surged + Purged for 40 minutes			0.5	
20	1020	16.9	6.19	117.5	0.5	19.2
22.5	1025	17.5	6.31	116.8	0.5	10.8
25	1030	17.9	6.34	116.8	0.5	8.9

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Lori Mauldin

Well Development Record

Well No.: MW-09-29

Project No.: 625116022	Logged By:	
Client Name: RBTC	Project Name: Ft. Inn	Checked By:
Well Installation Date:	Start Date:	Finish Date:
Well Development Date: 2-9-17 / 2-10-17	Start Time: 815	Finish Time: 855
Initial Water Level (ft.):		
Water Level during **Initial** Pumping/Purging (ft).:		
Water Level at **Termination** of Pumping/Purging (ft).:		
Weather: cold, clear		

Height of Water Column: _____ (ft.)

_____ 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

Gallons ~~Number of Well Volumes~~:	Time:	Temperature:	pH:	Conductivity: uS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
20 gallons pumped on 2-9-17						
40	835	16.6	7.00	103.3	0.75	403 - surge
~~50~~ 45	845	17.4	6.57	93.9	1.0	294 - surge
55	850	17.5	6.47	86.9	1.0	46.7
60	855	17.5	6.45	84.4	1.6	9.3

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Loni Maulden

Well Development Record

Well No.: MW-09-30

Project No.: 625116	Logged By:	
Client Name:	Project Name:	Checked By:
Well Installation Date:	Start Date:	Finish Date:
Well Development Date: 2.9.17 | 2.10.17	Start Time: 1330	Finish Time:
Initial Water Level (ft.): 10.43		
Water Level during **Initial** Pumping/Purging (ft).:		
Water Level at **Termination** of Pumping/Purging (ft).:		
Weather:		

Height of Water Column: _____ (ft.)

_____ 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

Number of Well Volumes:	Time:	Temperature:	pH:	Conductivity: us/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
Gallons 50	surged 5x times - purged 50 gallons					
	over 40 minutes				≈ 1.0	
60	1345	18.4	6.92	107.4		27.4
65	1350	18.3	6.94	107.2		22.6
70	1355	18.3	6.93	106.9		15.4
75	1400	18.3	6.93	106.9		9.4

2.9

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Lw Mauk

Well Development Record

Well No.: MW-09-31

Project No.: 625116022	Logged By: Lori Mauldin	
Client Name: RBTC	Project Name: Fountain Inn	Checked By:
Well Installation Date:	Start Date:	Finish Date:
Well Development Date: 2-13-17	Start Time: 800	Finish Time: 855
Initial Water Level (ft.): 19.00		
Water Level during **Initial** Pumping/Purging (ft).:		
Water Level at **Termination** of Pumping/Purging (ft).:		
Weather: clear, cold		

Height of Water Column: _____ (ft.)

_____ 0.16 gal./ft. (2 in.)
x _____ 0.65 gal./ft. (4 in.)
_____ 1.5 gal./ft. (6 in.)
_____ gal./ft. (_____ in.) = 0.96 Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume

√5 = 45 gal

~~Number of Well Volumes:~~ Gallons	Time:	Temperature:	pH:	Conductivity:	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
50	800	Surge + purge for 30 min			values	151
60	840	19.2	9.98	281.6	≈1.0	127
65	845	19.2	9.89	281.6		97
70	850	19.1	9.88	281.4		102
75	855	19.0	9.84	281.4		94

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Mud drilled well = high pH + turbidity

Well Developers Signature: Lori Mauldin

Graphics\Misc.\Forms

Well Development Record

Well No.: MW-09-32

Project No.: 60251161022	Logged By: Lori Mauldin	
Client Name: RBTC	Project Name:	Checked By:
Well Installation Date:	Start Date: ~~9/6~~	Finish Date:
Well Development Date: 2-13-17	Start Time: 900	Finish Time:
Initial Water Level (ft.): 18.05		
Water Level during **Initial** Pumping/Purging (ft).:		
Water Level at **Termination** of Pumping/Purging (ft).:		
Weather: Clear, Cold		

Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) _____ 0.65 gal./ft. (4 in.) _____ 1.5 gal./ft. (6 in.) _____ gal./ft. (_____ in.) = 4.32 Well Volume (gal./ft.)

Borehole volume as described in Notes will be used in place of Well Volume x 5 = 22 gal

~~Number of Well Volumes:~~ Gallons	Time:	Temperature:	pH:	Conductivity:	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
	900 Surge + purge for 30 minutes					
30	930	19.7	7.79	103.4	≈ 1.0	138
40	940	19.8	7.50	71.4		41.6
50	950	19.7	6.97	68.9		28.3
55	955	19.8	6.93	66.7		14.2
60	1000	19.7	6.92	65.9		9.2

Notes: One borehole volume = ((gallons per foot of borehole x 0.3) + (gallons per foot of well x 0.7)) x HWC
Gallons per foot of borehole = Pi x (radius of borehole^2) x 7.48 gallons per foot
Gallons per foot of well = Pi x (radius of well^2) x 7.48 gallons per foot
HWC = height of water column

Well Developers Signature: Lori Mauldin

Graphics\Misc.\Forms

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-26 | EVENT: Q1 2017

TIME: START 1005 END 1105 | JOB NUMBER: 6251161022.01.02 | DATE: 2-14-17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 10.60 FT

FINAL DEPTH TO WATER: 10.70 FT

DRAWDOWN DEPTH: 0.10 GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: 2 GAL

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 53.00 FT

SCREEN LENGTH: 10 FT

WELL DIAMETER: 2 IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (ms/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1005	10.60	120	13.6	1250	10.88	7.01	145	511.2	47	
1015	10.71	↓	16.2	1176	11.17	6.07	146	527.0	↑	
1025	10.68		16.3	1163	11.18	5.86	158	533.0		
1035	10.70		16.1	1150	11.18	5.63	166	536.9		
1045	10.70		16.6	1127	11.17	5.81	185	543.4		
1055	10.70		16.6	1119	11.17	5.44	213	548.5		
1105	10.70	↓	16.8	1110	11.16	5.25	221	550.7	↓	Sampled

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] GEOTECH BLADDER
- [x] PERISTALTIC
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER NA

TYPE OF BLADDER MATERIAL
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] TEFLON
- [x] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[✓] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED (YES) NO

NUMBER OF GALLONS GENERATED: 2

NOTES

SIGNATURE: [signature]

Comments:

1105

XD

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-27 | EVENT: Q1 2017

TIME: START 1145 END | JOB NUMBER: 6251161022.01.02 | DATE: 2-14-17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 10.81 FT

FINAL DEPTH TO WATER: FT

DRAWDOWN DEPTH: GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: GAL

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 52.96 FT

SCREEN LENGTH: 10 FT

WELL DIAMETER: 2 IN

- [ ] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (ms/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1155	11.40	200	17.8	3499	12.29	1.27	122	580.1	48	
1205	11.40	200	18.1	3396	12.27	1.25	140	579.2		
1215	11.40	200	18.1	3321	12.26	1.25	127	588.9		
1230	11.40	200	18.2	3211	12.23	1.27	131	587.0		
1245	11.40	200	19.4	3069	12.21	1.27	128	584.3		
1250	11.40	200	18.5	3001	12.20	1.28	126	586.7		
1255	11.40	200	19.4	2995	12.19	1.27	119	584.3		
1300	11.40	200	18.4	2993	12.19	1.28	122	584.1		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] GEOTECH BLADDER
- [x] PERISTALTIC
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER NA

TYPE OF BLADDER MATERIAL
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] TEFLON
- [ ] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X]	8260	8260	HCL / 4 DEG. C	3 X 40 mL	[x] 8260
[ ]	8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ]	6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ]	TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other
[ ]	Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: (YES) NO

NUMBER OF GALLONS GENERATED:

NOTES

SIGNATURE: Luri Mauk

Comments:

Mud rotary well = high turbidity & high pH

1300

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-20 | EVENT: Q1 2017

TIME: START 1300 END | JOB NUMBER: 6251161022.01.02 | DATE: 2/14/17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 11.20 FT

FINAL DEPTH TO WATER: FT

DRAWDOWN DEPTH: GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: GAL

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 34.25 FT

SCREEN LENGTH: 10 FT

WELL DIAMETER: 2 IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (ms/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1310	12.25	200	18.9	169.1	8.95	0.97	82.0	443.6	30	
1325	12.27	200	18.7	167.3	8.31	0.97	94.8	396.1	30	
1335	12.27	200	18.9	166.2	8.04	0.95	96.2	-155.1		
1345	12.28	200	18.9	166.5	7.98	0.93	102.0	-245.3		
1350	12.28	200	18.8	166.9	7.92	0.92	97.8	-267.7		
1355	12.27	200	18.6	166.2	7.89	0.92	83.5	-265.2		
1400	12.27	200	18.6	166.5	7.89	0.92	85.2	-265.4		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] GEOTECH BLADDER
- [x] PERISTALTIC
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER NA

TYPE OF BLADDER MATERIAL
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] TEFLON
- [ ] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[x] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED (YES) NO

NUMBER OF GALLONS GENERATED: 20

Comments:

1400

NOTES

SIGNATURE: Lew Mauldin

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-29 | EVENT: Q1 2017

TIME: START 1155 END 1255 | JOB NUMBER: 6251161022.01.02 | DATE: 2-14-17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 10.40 FT

FINAL DEPTH TO WATER: 10.61 FT

DRAWDOWN DEPTH (initial - final x 0.16 {2-inch} or x 0.65 {4-inch}): ~~0.21~~ 0.21 GAL

TOTAL VOL. PURGED: 2 GAL

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 39.73 FT

SCREEN LENGTH: 15 FT

WELL DIAMETER: 2 IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (ms/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1155	10.40	110	19.6	92.0	9.09	6.33	41.9	684.9	30	
1205	10.59	↓	19.8	82.3	6.18	2.73	17.1	538.8	↓	
1215	10.61		19.9	82.7	6.01	2.69	12.4	493.8		
1225	10.59		20.8	84.0	5.94	2.62	26.8	453.2		
1235	10.60		20.8	81.3	5.87	2.55	32.8	325.3		
1245	10.60		20.9	80.3	5.80	2.85	19.1	225.0		
1255	10.61	↓	21.1	79.1	5.81	2.67	19.9	203.5	↓	Sampled

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[ ] GEOTECH BLADDER	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] HIGH DENSITY POLYETHYLENE
[✓] PERISTALTIC	[✓] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] TEFLON
[ ] OTHER	[ ] OTHER	[✓] OTHER NA	[✓] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[✓] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED (YES) NO

NUMBER OF GALLONS GENERATED: 2

NOTES

SIGNATURE:

Comments:

1255

MS MSD

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-30 | EVENT: Q1 2017

TIME: START 1000 END | JOB NUMBER: 6251161022.01.02 | DATE: 2-14-17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 12.39 FT

FINAL DEPTH TO WATER: FT

DRAWDOWN DEPTH: GAL
(Initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: GAL

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 39.4 FT

SCREEN LENGTH: ~~10~~ 15 FT

WELL DIAMETER: ~~4~~ 2" IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (µs/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1010	13.50	100	15.6	138.2	6.71	1.72	13.4	-393.4	35	
1020	13.45	100	15.7	137.6	6.50	1.64	13.3	-388.4		
1030	13.45	100	15.9	142.7	6.54	1.62	13.1	-401.4		
1035	13.46	100	16.0	141.4	6.53	1.60	10.3	-395.4		
1040	13.46	100	15.9	142.1	6.53	1.60	8.81	-392.3		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] GEOTECH BLADDER
- [x] PERISTALTIC
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER NA

TYPE OF BLADDER MATERIAL
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] TEFLON
- [ ] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[x] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED (YES) NO

NUMBER OF GALLONS GENERATED

NOTES

SIGNATURE: Lan. Mauk

Comments:

1040

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09-31 | EVENT: Q1 2017

TIME: START 1030 END | JOB NUMBER: 6251161022.01.02 | DATE: 2-15-17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 18.45 FT

FINAL DEPTH TO WATER: FT

DRAWDOWN DEPTH: GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: GAL

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 74.90 FT

SCREEN LENGTH: 10 FT

WELL DIAMETER: 2 IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (µs/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1040	19.26	200	17.9	363.0	10.39	6.51	15.2	120.7	70	
1055	19.26	200	18.0	367.8	10.62	6.36	9.06	103.4		
1100	19.27	200	18.5	369.7	10.78	6.28	7.89	94.0		
1105	19.27	200	18.0	369.3	10.87	6.22	7.68	89.8		
1110	19.27	200	18.1	369.1	10.88	6.24	8.03	89.7		
1115	19.27	200	18.1	368.7	10.89	6.20	7.00	88.5		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] GEOTECH BLADDER
- [x] PERISTALTIC
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [ ] OTHER NA

TYPE OF BLADDER MATERIAL
- [ ] HIGH DENSITY POLYETHYLENE
- [ ] TEFLON
- [ ] OTHER NA

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[✓] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED (YES) NO

NUMBER OF GALLONS GENERATED: 20

Comments:

Mud drilled well = high pH

1115

NOTES

SIGNATURE: Lon Mauldin

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: RBTC- Fountain Inn, SC | SAMPLE I.D. NUMBER: MW-09.32 | EVENT: Q1 2017

TIME: START 1120 END | JOB NUMBER: 6251161022.01.02 | DATE: 2.15.17

WATER LEVEL /WELL INFORMATION

INITIAL DEPTH TO WATER: 18.00 FT

FINAL DEPTH TO WATER: FT

DRAWDOWN DEPTH (initial - final x 0.16 {2-inch} or x 0.65 {4-inch}): GAL

TOTAL VOL. PURGED: GAL

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 44.62 FT

SCREEN LENGTH: FT

WELL DIAMETER: IN

- [x] FLUSH MOUNT
- [ ] STICK UP CASING

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

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c)	SPECIFIC CONDUCTANCE (ms/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (ntu)	REDOX (mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1120	18.98	200	18.0	164.4	10.32	6.80	22.5	97.4	40	
1140	19.04	200	16.5	142.6	8.51	6.05	29.7	177.9	40	
1200	19.03	200	17.2	124.3	7.47	6.07	11.7	221.4	40	
1205	19.04	200	17.0	114.9	7.13	6.32	12.1	223.4	40	
1210	19.04	200	17.2	112.5	7.02	6.27	12.0	234.3	40	
1215	19.04	200	17.2	110.5	6.96	6.25	12.0	235.7	40	
1220	19.04	200	17.2	110.9	6.95	6.20	8.53	236.8	40	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[ ] GEOTECH BLADDER	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] HIGH DENSITY POLYETHYLENE
[✓] PERISTALTIC	[✓] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] TEFLON
[ ] OTHER	[ ] OTHER	[ ] OTHER	[ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] 8260	8260	HCL / 4 DEG. C	3 X 40 mL	[✓] 8260
[ ] 8270	8270	4 DEG. C	3 X 20 mL	[ ] 8270
[ ] 6010 Metals	6010c	4 DEG. C	1 X 250 mL P	[ ] 6010 METALS
[ ] TPH-DRO	8015C	H2SO4	1 X 250 mL AG	[ ] TPH-DRO
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other
[ ] Other				[ ] Other

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: (YES) NO

NUMBER OF GALLONS GENERATED: 20

Comments:

1220

NOTES

SIGNATURE: Lou Mauk

APPENDIX D

EQUIPMENT CALIBRATION RECORDS

FIELD INSTRUMENTATION CALIBRATION RECORD

AMEC Foster Wheeler

PROJECT: Bosch - Ft Inn, SC

DATE: 2-10-17

CREW ID OR TASK ID: Q1 2017 sampling / Development

JOB NUMBER: 6251161022

SAMPLER SIGNATURE: Luis Maulan

EQUIPMENT CALIBRATION

EQUIPMENT CALIBRATION		CALIBRATION INFORMATION			ACCEPTANCE
WATER QUALITY METER		STANDARD VALUE		METER VALUE	CRITERIA **
MANUFAC. YSI	pH	4.01 7.0	units	pH 3.97 7.02	units +/- 10% of standard
MODEL NO. Pro Plus	Sp. Conductivity	1413	mS/cm	Sp. Conductivity 1424	mS/cm +/- 10% of standard
UNIT ID NO. 1298	Redox	200	mV	Redox 197	mV see note 1
	DO	—	mg/L *	DO —	mg/L +/- 10% of standard
	Thermometer Temperature	—	deg. C	Temperature 6.7	deg. C +/- 2.0 deg. C
TURBIDITY METER TYPE Hach		10	NTU (low)	11.4	NTU within 0.3 NTU of
MODEL NO. 2100Q		20	NTU (low/med.)	21.2	NTU the standard
UNIT ID NO. 13395		100	NTU (med./high)	105	NTU +/- 10% of standard
		800	NTU (high)	813	NTU
PHOTOIONIZATION					
METER TYPE	Background ppmv	Zero Air ppmv		Meter ppmv	within 5 ppmv of Zero
MODEL NO.	Span Gas ppmv			Meter ppmv	+/- 10% of standard
UNIT ID NO.					
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2

MATERIALS RECORD

MATERIALS RECORD	Lot Number	Calibration Fluids/
Deionized Water Source:		Standard Source:
Trip Blank Water Source:		Lot Numbers pH
Sample Preservatives Source:		mV
Disposable Filter Type:		Sp. Cond.
Other		Turb.

NOTES:

* = Indicate in notes section what was used as the DO standard (i.e., based on saturation at room temperature)

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the specified parameter was not calibrated to the acceptance criteria.

1 = meter must read within specified range of the Zobell solution (usually 231 +/- 10 mv @ 25 deg C).

2 = specify acceptance criteria in the Notes section

FIELD INSTRUMENTATION CALIBRATION RECORD

AMEC Foster Wheeler

PROJECT: Bosch - Ft Inn, SC

DATE: 2-13-17

CREW ID OR TASK ID: Q1 2017 sampling

JOB NUMBER: 6251161022

SAMPLER SIGNATURE: Lw Mauk

EQUIPMENT CALIBRATION	CALIBRATION INFORMATION				ACCEPTANCE
WATER QUALITY METER	STANDARD VALUE		METER VALUE		CRITERIA **
MANUFAC. YSI	pH 4.0 | 7.0	units	pH 4.02 | 7.02	units	+/- 10% of standard
MODEL NO. Pro Plus	Sp. Conductivity 1413	mS/cm	Sp. Conductivity 1427	mS/cm	+/- 10% of standard
UNIT ID NO. 1296	Redox 200	mV	Redox 197.4	mV	see note 1
	DO —	mg/L *	DO —	mg/L	+/- 10% of standard
	Thermometer Temperature —	deg. C	Temperature 18.9	deg. C	+/- 2.0 deg. C
TURBIDITY METER TYPE Hach	10	NTU (low)	9.62	NTU	within 0.3 NTU of
MODEL NO. 2100 Q	20	NTU (low/med.)	22.6	NTU	the standard
UNIT ID NO. B95	100	NTU (med./high)	99.2	NTU	+/- 10% of standard
	800	NTU (high)	790	NTU	
PHOTOIONIZATION					
METER TYPE	Background ppmv	Zero Air ppmv	Meter	ppmv	within 5 ppmv of Zero
MODEL NO.	Span Gas ppmv		Meter	ppmv	+/- 10% of standard
UNIT ID NO.					
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2

MATERIALS RECORD	Lot Number	Calibration Fluids/	
Deionized Water Source:		Standard Source:	
Trip Blank Water Source:		Lot Numbers pH	
Sample Preservatives Source:		mV	
Disposable Filter Type:		Sp. Cond.	
Other		Turb.	

NOTES:

* = Indicate in notes section what was used as the DO standard (i.e., based on saturation at room temperature)

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the specified parameter was not calibrated to the acceptance criteria.

1 = meter must read within specified range of the Zobell solution (usually 231 +/- 10 mv @ 25 deg C).

2 = specify acceptance criteria in the Notes section

FIELD INSTRUMENTATION CALIBRATION RECORD

AMEC Foster Wheeler

PROJECT: Bosch - Ft Inn, SC

DATE: 2.14.17

CREW ID OR TASK ID: Q1 2017 sampling

JOB NUMBER: 6251161022

SAMPLER SIGNATURE: Lan Mallin

EQUIPMENT CALIBRATION	CALIBRATION INFORMATION				ACCEPTANCE
WATER QUALITY METER	STANDARD VALUE		METER VALUE		CRITERIA **
MANUFAC. YSI	pH 4.0 / 7.0	units	pH 4.03 / 7.02	units	+/- 10% of standard
MODEL NO. Pro Plus	Sp. Conductivity 1413	mS/cm	Sp. Conductivity 1392	mS/cm	+/- 10% of standard
UNIT ID NO. 1298	Redox 200	mV	Redox 199.9	mV	see note 1
	DO —	mg/L *	DO —	mg/L	+/- 10% of standard
	Thermometer Temperature —	deg. C	Temperature 11.4	deg. C	+/- 2.0 deg. C
TURBIDITY METER TYPE Hach	10	NTU (low)	9.64	NTU	within 0.3 NTU of
MODEL NO. 2100 Q	20	NTU (low/med.)	21.4	NTU	the standard
UNIT ID NO. 13795	100	NTU (med./high)	99.1	NTU	+/- 10% of standard
	800	NTU (high)	796	NTU	
PHOTOIONIZATION					
METER TYPE	Background ppmv	Zero Air ppmv	Meter	ppmv	within 5 ppmv of Zero
MODEL NO.	Span Gas ppmv		Meter	ppmv	+/- 10% of standard
UNIT ID NO.					
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2
OTHER METER TYPE					see note 2
MODEL NO.					see note 2
UNIT ID NO.					see note 2

MATERIALS RECORD	Lot Number	Calibration Fluids/	
Deionized Water Source:		Standard Source:	
Trip Blank Water Source:		Lot Numbers pH	
Sample Preservatives Source:		mV	
Disposable Filter Type:		Sp. Cond.	
Other		Turb.	

NOTES:

* = Indicate in notes section what was used as the DO standard (i.e., based on saturation at room temperature)

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the specified parameter was not calibrated to the acceptance criteria.

1 = meter must read within specified range of the Zobell solution (usually 231 +/- 10 mv @ 25 deg C).

2 = specify acceptance criteria in the Notes section

FIELD INSTRUMENTATION CALIBRATION RECORD

AMEC Foster Wheeler

PROJECT: Bosch - Ft Inn, SC

DATE: 2-14-17

CREW ID OR TASK ID: Q1 2017 sampling

JOB NUMBER: 6251161022

SAMPLER SIGNATURE: Zach R

EQUIPMENT CALIBRATION

CALIBRATION INFORMATION

WATER QUALITY METER	STANDARD VALUE		METER VALUE		ACCEPTANCE CRITERIA **
MANUFAC. YSI	pH 4/7	units	pH 4.09/7.04	units	+/- 10% of standard
MODEL NO. Pro Plus	Sp. Conductivity 1413	mS/cm	Sp. Conductivity 1399	mS/cm	+/- 10% of standard
UNIT ID NO. 1582	Redox 200	mV	Redox 200.1	mV	see note 1
	DO -	mg/L *	DO 85.1	mg/L	+/- 10% of standard
	Thermometer Temperature -	deg. C	Temperature 10.9	deg. C	+/- 2.0 deg. C

TURBIDITY METER TYPE Hach ~~2100~~					
MODEL NO. 2100 Q	10	NTU (low)	9.8	NTU	within 0.3 NTU of
UNIT ID NO. 1479	20	NTU (low/med.)	18.9	NTU	the standard
	100	NTU (med./high)	99.6	NTU	+/- 10% of standard
	800	NTU (high)	778	NTU	

PHOTOIONIZATION

METER TYPE _____ Background _____ ppmv Zero Air _____ ppmv Meter _____ ppmv within 5 ppmv of Zero

MODEL NO. _____ Span Gas _____ ppmv Meter _____ ppmv +/- 10% of standard

UNIT ID NO. _____

OTHER METER TYPE _____			see note 2
MODEL NO. _____			see note 2
UNIT ID NO. _____			see note 2
OTHER METER TYPE _____			see note 2
MODEL NO. _____			see note 2
UNIT ID NO. _____			see note 2

MATERIALS RECORD

	Lot Number		
Deionized Water Source:		Calibration Fluids/ Standard Source:	
Trip Blank Water Source:		Lot Numbers pH	
Sample Preservatives Source:		mV	
Disposable Filter Type:		Sp. Cond.	
Other		Turb.	

NOTES:

* = Indicate in notes section what was used as the DO standard (i.e., based on saturation at room temperature)

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the specified parameter was not calibrated to the acceptance criteria.

1 = meter must read within specified range of the Zobell solution (usually 231 +/- 10 mv @ 25 deg C).

2 = specify acceptance criteria in the Notes section

FIELD INSTRUMENTATION CALIBRATION RECORD

AMEC Foster Wheeler

PROJECT: Bosch - Ft Inn, SC

DATE: 2.15.17

CREW ID OR TASK ID: Q1 2017 sampling

JOB NUMBER: 6251161022

SAMPLER SIGNATURE: Lou Manla

EQUIPMENT CALIBRATION		CALIBRATION INFORMATION		ACCEPTANCE
WATER QUALITY METER	STANDARD VALUE	METER VALUE		CRITERIA **
MANUFAC. YSI	pH 4.0/7.0 units	pH 4.06/6.99 units		+/- 10% of standard
MODEL NO. Pro Plus	Sp. Conductivity 1413 mS/cm	Sp. Conductivity 1412 mS/cm		+/- 10% of standard
UNIT ID NO. 1298	Redox 200 mV	Redox 192.2 mV		see note 1
	DO — mg/L *	DO — mg/L		+/- 10% of standard
	Thermometer Temperature — deg. C	Temperature 14.7 deg. C		+/- 2.0 deg. C
TURBIDITY METER TYPE Hach	10 NTU (low)	9.81 NTU		within 0.3 NTU of
MODEL NO. 2100 Q	20 NTU (low/med.)	22.0 NTU		the standard
UNIT ID NO. 13095	100 NTU (med./high)	104 NTU		+/- 10% of standard
	800 NTU (high)	794 NTU		
PHOTOIONIZATION				
METER TYPE	Background ppmv Zero Air ppmv	Meter ppmv		within 5 ppmv of Zero
MODEL NO.	Span Gas ppmv	Meter ppmv		+/- 10% of standard
UNIT ID NO.				
OTHER METER TYPE				see note 2
MODEL NO.				see note 2
UNIT ID NO.				see note 2
OTHER METER TYPE				see note 2
MODEL NO.				see note 2
UNIT ID NO.				see note 2

MATERIALS RECORD	Lot Number	Calibration Fluids/	
Deionized Water Source:		Standard Source:	
Trip Blank Water Source:		Lot Numbers pH	
Sample Preservatives Source:		mV	
Disposable Filter Type:		Sp. Cond.	
Other		Turb.	

NOTES:

* = Indicate in notes section what was used as the DO standard (i.e., based on saturation at room temperature)

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the specified parameter was not calibrated to the acceptance criteria.

1 = meter must read within specified range of the Zobell solution (usually 231 +/- 10 mv @ 25 deg C).

2 = specify acceptance criteria in the Notes section

EASTERN SOLUTIONS, LLC
(803) 746-5180
PACKING LIST
Hach 2100Q

ES #: 1395

Date: 2/9/17

Standard Items	Prepared	QC Check	Received By	Return
Hach 2100Q	✓	✓		
Manual	✓	✓		
Calibration Standards (.10, 20, 100, 800)	✓	✓		
Sample Vials (3)	✓	✓		
Silicone Oil	✓	✓		
Cleaning Cloth	✓	✓		
Spare Batteries	✓	✓		
Calibration Sticker	✓	✓		

Prepared By: DS

QC Check: LM

Date: 2/9/17

CALIBRATION LOG
HACH 2100Q

ES Number: [illegible] SERIAL#: [illegible] Date: 2/9/2017

Physical Calibration

Battery Check	100%
Backlight	OK
Date / Time	OK

Turbidity Calibration

Calibration Standard	Lot #	Exp. Date	Calibration Reading
10.0 NTU (Verification)	A5313	Feb-17	9.47 NTU
20.0 NTU	A5323	Feb-17	20 NTU
100 NTU	A5323	Feb-17	98.6 NTU
800 NTU	A5323	Feb-17	797 NTU

Signature:DS

Date: 02/09/2017

EASTERN SOLUTIONS, LLC
~~(803) 746-5180~~
PACKING LIST
YSI 556/ YSI PRO

ES #: 1298

Date: 2/9/17

Standard Items	Prepared	QC Check	Received By	Return
YSI 556/ YSI PRO	✓	/		
Manual	✓	/		
Quick Reference Card	✓	/		
Flow Cell	✓	/		
Spare Batteries	✓			
Calibration Solutions (4, 7, 10, ORP, 1413)	✓	/		
O-Ring Kit	✓	/		
Membrane Kit	✓	/		
Shroud	✓	/		
Calibration Sticker	✓			

Prepared By: DS

QC Check: LWS

Date: 2/9/17

CALIBRATION LOG
YSI PRO

4543 Charlotte Hwy Suite 8, Lake Wylie SC 29710 803-746-5180

Instrument: YSI PRO Serial Number: 15E100019/15C10043 ES: 1298

Physical Calibration

Battery Check	100%	Condition	Replace Date:	2/9/2017
DO Membrane	OK	Condition		

pH Calibration

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
pH 4.00	7609323	10/31/2018	4.87	22.00	4.00
pH 7.00	7610126	10/31/2018	7.20	22.00	7.00
pH 10.00	7608464	8/30/2018	10.47	22.00	10.00

Conductivity Calibration

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
1413 µs/cm	2609c89	9/30/2018	1436	22.00	1413

Dissolved Oxygen Calibration

Calibration Standard	inHG	mmHg	Initial Reading	Temp. °C	Calibration Reading
Saturated DO 100%		741.3	108.1%	22.00	98%

Oxygen Reduction Potential

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
200mv	2609D38	6/30/2017	192.90	22.00	200

Tech: DS Date:02/09/2017

EASTERN SOLUTIONS, LLC
(803) 746-5180
PACKING LIST
Hach 2100Q

ES #: 1479

Date: 2/13/17

Standard Items	Prepared	QC Check	Received By	Return
Hach 2100Q	✓	✓		
Manual	✓	✓		
Calibration Standards (.10, 20, 100, 800)	✓	✓		
Sample Vials (3)	✓	✓		
Silicone Oil	✓	✓		
Cleaning Cloth	✓	✓		
Spare Batteries	✓	✓		
Calibration Sticker	✓	✓		

Prepared By: Matthew Ezell

QC Check: Lucas

Date: 2/13/17

CALIBRATION LOG
HACH 2100Q

ES Number: 1479 SERIAL#15080C042885

Physical Calibration

Battery Check	100%
Backlight	OK
Date / Time	OK

Turbidity Calibration

Calibration Standard	Lot #	Exp. Date	Calibration Reading
10.0 NTU (Verification)	A6067	Jun-17	9.92 NTU
20.0 NTU	A6064	Jun-17	21.6 NTU
100 NTU	A6091	Jun-17	99.9 NTU
800 NTU	A6061	May-17	799.0 NTU

Signature:MAE Date: 02.13.2017

EASTERN SOLUTIONS, LLC
(803) 746-5180
PACKING LIST
YSI 556/ YSI PRO

ES #: 1582

Date: 2/13/17

Standard Items	Prepared	QC Check	Received By	Return
YSI 556/ YSI PRO	✓	✓		
Manual	✓	✓		
Quick Reference Card	✓	✓		
Flow Cell	✓	✓		
Spare Batteries	✓	✓		
Calibration Solutions (4, 7, 10, ORP, 1413)	✓	✓		
O-Ring Kit	✓	✓		
Membrane Kit	✓	✓		
Shroud	✓	✓		
Calibration Sticker	✓			

Prepared By: Matthew Sally

QC Check: LMS

Date: 2/13/17

CALIBRATION LOG
YSI PRO

4543 Charlotte Hwy Suite 8, Lake Wylie SC 29710 803-746-5180

Instrument: YSI PRO Serial Number:16J103902/16H100662 ES: 1582

Physical Calibration

Battery Check 80%

DO Membrane 10/20/2016

pH Calibration

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
pH 4.00	7609323	10/30/2018	3.89	22.00	4.00
pH 7.00	7610126	10/30/2018	7.12	22.00	7.00
pH 10.00	7606293	7/30/2018	10.18	22.00	10.00

Conductivity Calibration

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
1413 µs/cm	2609C89	9/30/2018	1283	22.00	1413

Dissolved Oxygen Calibration

Calibration Standard	inHG	mmHg	Initial Reading	Temp. °C	Calibration Reading
Saturated DO 100%	30.22	767.6	143.0%	22.00	101%

Oxygen Reduction Potential

Calibration Standard	Lot #	Exp. Date	Initial Reading	Temp. °C	Calibration Reading
200 mVolts	2609D38	6/30/2017	238.00	22.00	200

Tech:MAE Date:2/13/2017

ES

Run & Repair LOG

Alexis Peristaltic Pump

Instrument: Pegasus Alexis Peristaltic Pump Serial Number:103144 ES 1389

BATTERY CHECK: 100%
MASTER FLEX HEAD SECURE: OK
CABLE CHECK: OK

PERFORMANCE RUN CHECK

	BATTERY LEVEL READING	Comments
Zero Run Time	100.00%	
10 Min Run Time	100.00%	

Signature:MAE Date:2/13/2017

Run & Repair LOG
Alexis Peristaltic Pump

Instrument: Pegasus Alexis Peristaltic Pump Serial Number: 103152 ES 1537

BATTERY CHECK:	100%	CHARGING SYSTEM:	OK
MASTER FLEX HEAD SECURE:	OK	CABLE CONNECTIONS:	OK
CABLE CHECK:	OK		

PERFORMANCE RUN CHECK

	BATTERY LEVEL READING	Comments
Zero Run Time	100.00%	
10 Min Run Time	100.00%	

Signature:MAE Date:2/13/2017

APPENDIX E

LABORATORY REPORTS OF ANALYSIS

AND

CHAIN-OF-CUSTODY RECORDS

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 23, 2017

Paul Johnstone
AMEC E&I, Inc.
37 Villa Rd.
Greenville SC 29615

TEL: (864) 552-9624
FAX: (864) 552-9699

RE: RBTC Fountain Inn

Dear Paul Johnstone: Order No: 1702E41

Analytical Environmental Services, Inc. received 12 samples on 2/16/2017 10:15:00 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:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

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.

Sincerely,

Ioana Pacurar

Ioana Pacurar
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 170241

Date: 2-15-17 Page 1 of 1

COMPANY:	ADDRESS:
AMEC FW	37 Villa Road, Ste 201 Greenville, SC 29615
PHONE: 864-616-7002	FAX:
SAMPLED BY: Lori Mauldin	SIGNATURE: Lori Mauldin

#	SAMPLE ID	SAMPLED DATE 2017	SAMPLED TIME	Grab	Composite	Matrix (See codes)	8260													No # of Containers
							PRESERVATION (See codes)													
							H_I													
1	TB-01	2.14	1400	X		W	X													2
2	FB-01	2-14	1100	X		W	X													2
3	FB-02	2-15	1130	X		GW	X													2
4	MW-09-26	2-14	1105	X		GW	X													2
5	MW-09-27	2-14	1300	X		GW	X													2
6	MW-09-28	2-14	1400	X		GW	X													2
7	MW-09-29	2-14	1255	X		GW	X													2
8	MW-09-30	2-14	1040	X		GW	X													2
9	MW-09-31	2-15	1115	X		GW	X													2
10	MW-09-32	2-15	1220	X		GW	X													2
11	MW-09-26 XD	2-14	1105	X		GW	X													2
12	MW-09-29 MS	2-14	1255	X		GW	X													2
13	MW-09-29 MSD	2-14	1255	X		GW	X													2
14																				

ANALYSIS REQUESTED

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

REMARKS

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1: Lori Mauldin		1: FedEx	2-15-17 1600
2:		2: Maple	2/16/17 10:15
3:		3: (4.6°)	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD:

OUT / / VIA:

IN / / VIA:

CLIENT (FedEx) UPS MAIL COURIER

GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: RBTC - Fountain Inn

PROJECT #: 625111e1022

SITE ADDRESS: Fountain Inn, SC

SEND REPORT TO: Paul Johnstone

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #:_____ PO#:_____

RECEIPT

Total # of Containers: 26

Turnaround Time Request

- [X] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): SC

E-mail? Yes Fax? No

DATA PACKAGE: I ○ II ○ III ○ IV ○

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

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

Client: AMEC E&I, Inc.
Project: RBTC Fountain Inn
Lab ID: 1702E41

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

LCS-238383 recovery for Bromoform was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Samples 1702E41-004A,-005A, & -011A exhibited a positive result for the presence of residual chlorine or other oxidizing agent. The presence of free chlorine in aqueous samples can cause the formation of trihalomethanes and other possible chemical reactions.

Due to sample matrix, samples 1702E41-004A,-005A, & -011A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-01
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 2:00:00 PM
Lab ID:	1702E41-001	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 23:51	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/21/2017 23:51	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/21/2017 23:51	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/21/2017 23:51	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/21/2017 23:51	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/21/2017 23:51	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/21/2017 23:51	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/21/2017 23:51	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Chloroform	BRL		0.20	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/21/2017 23:51	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/21/2017 23:51	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/21/2017 23:51	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/21/2017 23:51	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 23:51	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/21/2017 23:51	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/21/2017 23:51	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-01
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 2:00:00 PM
Lab ID:	1702E41-001	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/21/2017 23:51	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 23:51	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/21/2017 23:51	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/21/2017 23:51	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 23:51	NP
Surr: 4-Bromofluorobenzene	84.2		0	70-130	%REC	238383	1	02/21/2017 23:51	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	238383	1	02/21/2017 23:51	NP
Surr: Toluene-d8	97.8		0	70-130	%REC	238383	1	02/21/2017 23:51	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	FB-01
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:00:00 AM
Lab ID:	1702E41-002	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:24	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 10:24	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 10:24	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 10:24	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 10:24	NP
Acetone	35		3.6	20	ug/L	238383	1	02/22/2017 10:24	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 10:24	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 10:24	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Chloroform	1.1		0.20	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 10:24	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 10:24	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 10:24	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 10:24	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:24	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 10:24	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 10:24	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	FB-01
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:00:00 AM
Lab ID:	1702E41-002	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/22/2017 10:24	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Toluene	2.4		0.39	1.0	ug/L	238383	1	02/22/2017 10:24	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 10:24	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 10:24	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:24	NP
Surr: 4-Bromofluorobenzene	84.6		0	70-130	%REC	238383	1	02/22/2017 10:24	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	238383	1	02/22/2017 10:24	NP
Surr: Toluene-d8	98.9		0	70-130	%REC	238383	1	02/22/2017 10:24	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	FB-02
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 11:30:00 AM
Lab ID:	1702E41-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:48	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 10:48	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 10:48	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 10:48	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 10:48	NP
Acetone	43		3.6	20	ug/L	238383	1	02/22/2017 10:48	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 10:48	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 10:48	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Chloroform	1.0		0.20	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 10:48	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 10:48	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 10:48	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 10:48	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 10:48	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 10:48	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 10:48	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	FB-02
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 11:30:00 AM
Lab ID:	1702E41-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/22/2017 10:48	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Toluene	2.5		0.39	1.0	ug/L	238383	1	02/22/2017 10:48	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 10:48	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 10:48	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 10:48	NP
Surr: 4-Bromofluorobenzene	84.6		0	70-130	%REC	238383	1	02/22/2017 10:48	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	238383	1	02/22/2017 10:48	NP
Surr: Toluene-d8	99.1		0	70-130	%REC	238383	1	02/22/2017 10:48	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-26
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:05:00 AM
Lab ID:	1702E41-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
1,1,2,2-Tetrachloroethane	BRL		17	50	ug/L	238383	50	02/22/2017 04:07	NP
1,1,2-Trichloroethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:07	NP
1,1-Dichloroethane	BRL		21	50	ug/L	238383	50	02/22/2017 04:07	NP
1,1-Dichloroethene	BRL		20	100	ug/L	238383	50	02/22/2017 04:07	NP
1,2,4-Trichlorobenzene	BRL		20	50	ug/L	238383	50	02/22/2017 04:07	NP
1,2-Dibromo-3-chloropropane	BRL		34	50	ug/L	238383	50	02/22/2017 04:07	NP
1,2-Dibromoethane	BRL		29	50	ug/L	238383	50	02/22/2017 04:07	NP
1,2-Dichlorobenzene	BRL		22	50	ug/L	238383	50	02/22/2017 04:07	NP
1,2-Dichloroethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:07	NP
1,2-Dichloropropane	BRL		17	50	ug/L	238383	50	02/22/2017 04:07	NP
1,3-Dichlorobenzene	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
1,4-Dichlorobenzene	BRL		16	50	ug/L	238383	50	02/22/2017 04:07	NP
2-Butanone	BRL		130	500	ug/L	238383	50	02/22/2017 04:07	NP
2-Hexanone	BRL		34	500	ug/L	238383	50	02/22/2017 04:07	NP
4-Methyl-2-pentanone	BRL		22	500	ug/L	238383	50	02/22/2017 04:07	NP
Acetone	BRL		180	1000	ug/L	238383	50	02/22/2017 04:07	NP
Benzene	BRL		19	50	ug/L	238383	50	02/22/2017 04:07	NP
Bromodichloromethane	BRL		12	50	ug/L	238383	50	02/22/2017 04:07	NP
Bromoform	BRL		9.7	50	ug/L	238383	50	02/22/2017 04:07	NP
Bromomethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:07	NP
Carbon disulfide	BRL		37	250	ug/L	238383	50	02/22/2017 04:07	NP
Carbon tetrachloride	BRL		15	100	ug/L	238383	50	02/22/2017 04:07	NP
Chlorobenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:07	NP
Chloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
Chloroform	730		9.9	50	ug/L	238383	50	02/22/2017 04:07	NP
Chloromethane	BRL		11	50	ug/L	238383	50	02/22/2017 04:07	NP
cis-1,2-Dichloroethene	BRL		14	50	ug/L	238383	50	02/22/2017 04:07	NP
cis-1,3-Dichloropropene	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
Cyclohexane	BRL		52	100	ug/L	238383	50	02/22/2017 04:07	NP
Dibromochloromethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:07	NP
Dichlorodifluoromethane	BRL		7.5	50	ug/L	238383	50	02/22/2017 04:07	NP
Ethylbenzene	BRL		13	50	ug/L	238383	50	02/22/2017 04:07	NP
Freon-113	BRL		16	250	ug/L	238383	50	02/22/2017 04:07	NP
Isopropylbenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:07	NP
m,p-Xylene	BRL		30	50	ug/L	238383	50	02/22/2017 04:07	NP
Methyl acetate	BRL		21	100	ug/L	238383	50	02/22/2017 04:07	NP
Methyl tert-butyl ether	BRL		22	50	ug/L	238383	50	02/22/2017 04:07	NP
Methylcyclohexane	BRL		20	100	ug/L	238383	50	02/22/2017 04:07	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-26
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:05:00 AM
Lab ID:	1702E41-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		59	250	ug/L	238383	50	02/22/2017 04:07	NP
o-Xylene	BRL		8.9	50	ug/L	238383	50	02/22/2017 04:07	NP
Styrene	BRL		7.7	50	ug/L	238383	50	02/22/2017 04:07	NP
Tetrachloroethene	BRL		23	50	ug/L	238383	50	02/22/2017 04:07	NP
Toluene	BRL		20	50	ug/L	238383	50	02/22/2017 04:07	NP
trans-1,2-Dichloroethene	BRL		15	100	ug/L	238383	50	02/22/2017 04:07	NP
trans-1,3-Dichloropropene	BRL		16	100	ug/L	238383	50	02/22/2017 04:07	NP
Trichloroethene	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
Trichlorofluoromethane	BRL		9.0	50	ug/L	238383	50	02/22/2017 04:07	NP
Vinyl chloride	BRL		15	50	ug/L	238383	50	02/22/2017 04:07	NP
Surr: 4-Bromofluorobenzene	86.9		0	70-130	%REC	238383	50	02/22/2017 04:07	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	238383	50	02/22/2017 04:07	NP
Surr: Toluene-d8	95.1		0	70-130	%REC	238383	50	02/22/2017 04:07	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-27
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 1:00:00 PM
Lab ID:	1702E41-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
1,1,2,2-Tetrachloroethane	BRL		17	50	ug/L	238383	50	02/22/2017 04:30	NP
1,1,2-Trichloroethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:30	NP
1,1-Dichloroethane	BRL		21	50	ug/L	238383	50	02/22/2017 04:30	NP
1,1-Dichloroethene	BRL		20	100	ug/L	238383	50	02/22/2017 04:30	NP
1,2,4-Trichlorobenzene	BRL		20	50	ug/L	238383	50	02/22/2017 04:30	NP
1,2-Dibromo-3-chloropropane	BRL		34	50	ug/L	238383	50	02/22/2017 04:30	NP
1,2-Dibromoethane	BRL		29	50	ug/L	238383	50	02/22/2017 04:30	NP
1,2-Dichlorobenzene	BRL		22	50	ug/L	238383	50	02/22/2017 04:30	NP
1,2-Dichloroethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:30	NP
1,2-Dichloropropane	BRL		17	50	ug/L	238383	50	02/22/2017 04:30	NP
1,3-Dichlorobenzene	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
1,4-Dichlorobenzene	BRL		16	50	ug/L	238383	50	02/22/2017 04:30	NP
2-Butanone	BRL		130	500	ug/L	238383	50	02/22/2017 04:30	NP
2-Hexanone	BRL		34	500	ug/L	238383	50	02/22/2017 04:30	NP
4-Methyl-2-pentanone	BRL		22	500	ug/L	238383	50	02/22/2017 04:30	NP
Acetone	BRL		180	1000	ug/L	238383	50	02/22/2017 04:30	NP
Benzene	BRL		19	50	ug/L	238383	50	02/22/2017 04:30	NP
Bromodichloromethane	BRL		12	50	ug/L	238383	50	02/22/2017 04:30	NP
Bromoform	BRL		9.7	50	ug/L	238383	50	02/22/2017 04:30	NP
Bromomethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:30	NP
Carbon disulfide	BRL		37	250	ug/L	238383	50	02/22/2017 04:30	NP
Carbon tetrachloride	BRL		15	100	ug/L	238383	50	02/22/2017 04:30	NP
Chlorobenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:30	NP
Chloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
Chloroform	1100		9.9	50	ug/L	238383	50	02/22/2017 04:30	NP
Chloromethane	BRL		11	50	ug/L	238383	50	02/22/2017 04:30	NP
cis-1,2-Dichloroethene	BRL		14	50	ug/L	238383	50	02/22/2017 04:30	NP
cis-1,3-Dichloropropene	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
Cyclohexane	BRL		52	100	ug/L	238383	50	02/22/2017 04:30	NP
Dibromochloromethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:30	NP
Dichlorodifluoromethane	BRL		7.5	50	ug/L	238383	50	02/22/2017 04:30	NP
Ethylbenzene	BRL		13	50	ug/L	238383	50	02/22/2017 04:30	NP
Freon-113	BRL		16	250	ug/L	238383	50	02/22/2017 04:30	NP
Isopropylbenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:30	NP
m,p-Xylene	BRL		30	50	ug/L	238383	50	02/22/2017 04:30	NP
Methyl acetate	BRL		21	100	ug/L	238383	50	02/22/2017 04:30	NP
Methyl tert-butyl ether	BRL		22	50	ug/L	238383	50	02/22/2017 04:30	NP
Methylcyclohexane	BRL		20	100	ug/L	238383	50	02/22/2017 04:30	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-27
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 1:00:00 PM
Lab ID:	1702E41-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		59	250	ug/L	238383	50	02/22/2017 04:30	NP
o-Xylene	BRL		8.9	50	ug/L	238383	50	02/22/2017 04:30	NP
Styrene	BRL		7.7	50	ug/L	238383	50	02/22/2017 04:30	NP
Tetrachloroethene	BRL		23	50	ug/L	238383	50	02/22/2017 04:30	NP
Toluene	BRL		20	50	ug/L	238383	50	02/22/2017 04:30	NP
trans-1,2-Dichloroethene	BRL		15	100	ug/L	238383	50	02/22/2017 04:30	NP
trans-1,3-Dichloropropene	BRL		16	100	ug/L	238383	50	02/22/2017 04:30	NP
Trichloroethene	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
Trichlorofluoromethane	BRL		9.0	50	ug/L	238383	50	02/22/2017 04:30	NP
Vinyl chloride	BRL		15	50	ug/L	238383	50	02/22/2017 04:30	NP
Surr: 4-Bromofluorobenzene	87.9		0	70-130	%REC	238383	50	02/22/2017 04:30	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	238383	50	02/22/2017 04:30	NP
Surr: Toluene-d8	97.3		0	70-130	%REC	238383	50	02/22/2017 04:30	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-28
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 2:00:00 PM
Lab ID:	1702E41-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:16	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 05:16	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 05:16	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 05:16	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 05:16	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/22/2017 05:16	NP
Benzene	0.40	J	0.37	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 05:16	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 05:16	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Chloroform	2.7		0.20	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 05:16	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 05:16	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 05:16	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 05:16	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:16	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 05:16	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 05:16	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-28
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 2:00:00 PM
Lab ID:	1702E41-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
Methylene chloride	2.2	J	1.2	5.0	ug/L	238383	1	02/22/2017 05:16	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Tetrachloroethene	1.7		0.46	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Toluene	1.7		0.39	1.0	ug/L	238383	1	02/22/2017 05:16	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 05:16	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 05:16	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:16	NP
Surr: 4-Bromofluorobenzene	87.4		0	70-130	%REC	238383	1	02/22/2017 05:16	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	238383	1	02/22/2017 05:16	NP
Surr: Toluene-d8	99.8		0	70-130	%REC	238383	1	02/22/2017 05:16	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-29
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 12:55:00 PM
Lab ID:	1702E41-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:39	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 05:39	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 05:39	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 05:39	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 05:39	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/22/2017 05:39	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 05:39	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 05:39	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Chloroform	BRL		0.20	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 05:39	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 05:39	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 05:39	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 05:39	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 05:39	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 05:39	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 05:39	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-29
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 12:55:00 PM
Lab ID:	1702E41-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/22/2017 05:39	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 05:39	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 05:39	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 05:39	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 05:39	NP
Surr: 4-Bromofluorobenzene	83.4		0	70-130	%REC	238383	1	02/22/2017 05:39	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	238383	1	02/22/2017 05:39	NP
Surr: Toluene-d8	99		0	70-130	%REC	238383	1	02/22/2017 05:39	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-30
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 10:40:00 AM
Lab ID:	1702E41-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:02	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 06:02	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 06:02	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 06:02	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 06:02	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/22/2017 06:02	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 06:02	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 06:02	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Chloroform	BRL		0.20	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 06:02	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 06:02	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 06:02	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 06:02	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:02	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 06:02	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 06:02	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-30
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 10:40:00 AM
Lab ID:	1702E41-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
Methylene chloride	2.0	J	1.2	5.0	ug/L	238383	1	02/22/2017 06:02	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:02	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 06:02	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 06:02	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:02	NP
Surr: 4-Bromofluorobenzene	83.4		0	70-130	%REC	238383	1	02/22/2017 06:02	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	238383	1	02/22/2017 06:02	NP
Surr: Toluene-d8	98.7		0	70-130	%REC	238383	1	02/22/2017 06:02	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-31
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 11:15:00 AM
Lab ID:	1702E41-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:25	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 06:25	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 06:25	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 06:25	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 06:25	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/22/2017 06:25	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 06:25	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 06:25	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Chloroform	1.1		0.20	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 06:25	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 06:25	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 06:25	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 06:25	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:25	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 06:25	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 06:25	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-31
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 11:15:00 AM
Lab ID:	1702E41-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/22/2017 06:25	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:25	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 06:25	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 06:25	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:25	NP
Surr: 4-Bromofluorobenzene	85.5		0	70-130	%REC	238383	1	02/22/2017 06:25	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	238383	1	02/22/2017 06:25	NP
Surr: Toluene-d8	100		0	70-130	%REC	238383	1	02/22/2017 06:25	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-32
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 12:20:00 PM
Lab ID:	1702E41-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:48	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/22/2017 06:48	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/22/2017 06:48	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/22/2017 06:48	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/22/2017 06:48	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/22/2017 06:48	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/22/2017 06:48	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/22/2017 06:48	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Chloroform	BRL		0.20	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/22/2017 06:48	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/22/2017 06:48	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/22/2017 06:48	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/22/2017 06:48	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/22/2017 06:48	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/22/2017 06:48	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/22/2017 06:48	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-32
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/15/2017 12:20:00 PM
Lab ID:	1702E41-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
Methylene chloride	1.7	J	1.2	5.0	ug/L	238383	1	02/22/2017 06:48	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Tetrachloroethene	30		0.46	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/22/2017 06:48	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/22/2017 06:48	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/22/2017 06:48	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/22/2017 06:48	NP
Surr: 4-Bromofluorobenzene	87.7		0	70-130	%REC	238383	1	02/22/2017 06:48	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	238383	1	02/22/2017 06:48	NP
Surr: Toluene-d8	101		0	70-130	%REC	238383	1	02/22/2017 06:48	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-26XD
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:05:00 AM
Lab ID:	1702E41-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
1,1,2,2-Tetrachloroethane	BRL		17	50	ug/L	238383	50	02/22/2017 04:53	NP
1,1,2-Trichloroethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:53	NP
1,1-Dichloroethane	BRL		21	50	ug/L	238383	50	02/22/2017 04:53	NP
1,1-Dichloroethene	BRL		20	100	ug/L	238383	50	02/22/2017 04:53	NP
1,2,4-Trichlorobenzene	BRL		20	50	ug/L	238383	50	02/22/2017 04:53	NP
1,2-Dibromo-3-chloropropane	BRL		34	50	ug/L	238383	50	02/22/2017 04:53	NP
1,2-Dibromoethane	BRL		29	50	ug/L	238383	50	02/22/2017 04:53	NP
1,2-Dichlorobenzene	BRL		22	50	ug/L	238383	50	02/22/2017 04:53	NP
1,2-Dichloroethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:53	NP
1,2-Dichloropropane	BRL		17	50	ug/L	238383	50	02/22/2017 04:53	NP
1,3-Dichlorobenzene	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
1,4-Dichlorobenzene	BRL		16	50	ug/L	238383	50	02/22/2017 04:53	NP
2-Butanone	BRL		130	500	ug/L	238383	50	02/22/2017 04:53	NP
2-Hexanone	BRL		34	500	ug/L	238383	50	02/22/2017 04:53	NP
4-Methyl-2-pentanone	BRL		22	500	ug/L	238383	50	02/22/2017 04:53	NP
Acetone	BRL		180	1000	ug/L	238383	50	02/22/2017 04:53	NP
Benzene	BRL		19	50	ug/L	238383	50	02/22/2017 04:53	NP
Bromodichloromethane	BRL		12	50	ug/L	238383	50	02/22/2017 04:53	NP
Bromoform	BRL		9.7	50	ug/L	238383	50	02/22/2017 04:53	NP
Bromomethane	BRL		19	50	ug/L	238383	50	02/22/2017 04:53	NP
Carbon disulfide	BRL		37	250	ug/L	238383	50	02/22/2017 04:53	NP
Carbon tetrachloride	BRL		15	100	ug/L	238383	50	02/22/2017 04:53	NP
Chlorobenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:53	NP
Chloroethane	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
Chloroform	700		9.9	50	ug/L	238383	50	02/22/2017 04:53	NP
Chloromethane	BRL		11	50	ug/L	238383	50	02/22/2017 04:53	NP
cis-1,2-Dichloroethene	BRL		14	50	ug/L	238383	50	02/22/2017 04:53	NP
cis-1,3-Dichloropropene	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
Cyclohexane	BRL		52	100	ug/L	238383	50	02/22/2017 04:53	NP
Dibromochloromethane	BRL		22	50	ug/L	238383	50	02/22/2017 04:53	NP
Dichlorodifluoromethane	BRL		7.5	50	ug/L	238383	50	02/22/2017 04:53	NP
Ethylbenzene	BRL		13	50	ug/L	238383	50	02/22/2017 04:53	NP
Freon-113	BRL		16	250	ug/L	238383	50	02/22/2017 04:53	NP
Isopropylbenzene	BRL		21	50	ug/L	238383	50	02/22/2017 04:53	NP
m,p-Xylene	BRL		30	50	ug/L	238383	50	02/22/2017 04:53	NP
Methyl acetate	BRL		21	100	ug/L	238383	50	02/22/2017 04:53	NP
Methyl tert-butyl ether	BRL		22	50	ug/L	238383	50	02/22/2017 04:53	NP
Methylcyclohexane	BRL		20	100	ug/L	238383	50	02/22/2017 04:53	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-26XD
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 11:05:00 AM
Lab ID:	1702E41-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		59	250	ug/L	238383	50	02/22/2017 04:53	NP
o-Xylene	BRL		8.9	50	ug/L	238383	50	02/22/2017 04:53	NP
Styrene	BRL		7.7	50	ug/L	238383	50	02/22/2017 04:53	NP
Tetrachloroethene	BRL		23	50	ug/L	238383	50	02/22/2017 04:53	NP
Toluene	BRL		20	50	ug/L	238383	50	02/22/2017 04:53	NP
trans-1,2-Dichloroethene	BRL		15	100	ug/L	238383	50	02/22/2017 04:53	NP
trans-1,3-Dichloropropene	BRL		16	100	ug/L	238383	50	02/22/2017 04:53	NP
Trichloroethene	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
Trichlorofluoromethane	BRL		9.0	50	ug/L	238383	50	02/22/2017 04:53	NP
Vinyl chloride	BRL		15	50	ug/L	238383	50	02/22/2017 04:53	NP
Surr: 4-Bromofluorobenzene	85.7		0	70-130	%REC	238383	50	02/22/2017 04:53	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	238383	50	02/22/2017 04:53	NP
Surr: Toluene-d8	98		0	70-130	%REC	238383	50	02/22/2017 04:53	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-29
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 12:55:00 PM
Lab ID:	1702E41-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2-Dibromoethane	BRL		0.57	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 15:55	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	238383	1	02/21/2017 15:55	NP
2-Butanone	BRL		2.5	10	ug/L	238383	1	02/21/2017 15:55	NP
2-Hexanone	BRL		0.67	10	ug/L	238383	1	02/21/2017 15:55	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	238383	1	02/21/2017 15:55	NP
Acetone	BRL		3.6	20	ug/L	238383	1	02/21/2017 15:55	NP
Benzene	BRL		0.37	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Bromoform	BRL		0.19	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Bromomethane	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	238383	1	02/21/2017 15:55	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	238383	1	02/21/2017 15:55	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Chloroethane	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Chloroform	BRL		0.20	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Chloromethane	BRL		0.21	1.0	ug/L	238383	1	02/21/2017 15:55	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	238383	1	02/21/2017 15:55	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Cyclohexane	BRL		1.0	2.0	ug/L	238383	1	02/21/2017 15:55	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Freon-113	BRL		0.32	5.0	ug/L	238383	1	02/21/2017 15:55	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	238383	1	02/21/2017 15:55	NP
m,p-Xylene	BRL		0.60	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Methyl acetate	BRL		0.42	2.0	ug/L	238383	1	02/21/2017 15:55	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	238383	1	02/21/2017 15:55	NP

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 23-Feb-17

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-09-29
Project Name:	RBTC Fountain Inn	**Collection Date:**	2/14/2017 12:55:00 PM
Lab ID:	1702E41-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	238383	1	02/21/2017 15:55	NP
o-Xylene	BRL		0.18	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Styrene	BRL		0.15	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Toluene	BRL		0.39	1.0	ug/L	238383	1	02/21/2017 15:55	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	238383	1	02/21/2017 15:55	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	238383	1	02/21/2017 15:55	NP
Trichloroethene	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	238383	1	02/21/2017 15:55	NP
Surr: 4-Bromofluorobenzene	85.5		0	70-130	%REC	238383	1	02/21/2017 15:55	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	238383	1	02/21/2017 15:55	NP
Surr: Toluene-d8	99.1		0	70-130	%REC	238383	1	02/21/2017 15:55	NP

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 23-Feb-17

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: FB-01				**Lab ID:** 1702E41-002			
Collection Date: 2/14/2017 11:00:00 AM				**Matrix:** Aqueous			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Acetone	35		3.6	20	ug/L	238383	1
Chloroform	1.1		0.20	1.0	ug/L	238383	1
Toluene	2.4		0.39	1.0	ug/L	238383	1
Client Sample ID: FB-02				**Lab ID:** 1702E41-003			
Collection Date: 2/15/2017 11:30:00 AM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Acetone	43		3.6	20	ug/L	238383	1
Chloroform	1.0		0.20	1.0	ug/L	238383	1
Toluene	2.5		0.39	1.0	ug/L	238383	1
Client Sample ID: MW-09-26				**Lab ID:** 1702E41-004			
Collection Date: 2/14/2017 11:05:00 AM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Chloroform	730		9.9	50	ug/L	238383	50
Client Sample ID: MW-09-27				**Lab ID:** 1702E41-005			
Collection Date: 2/14/2017 1:00:00 PM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Chloroform	1100		9.9	50	ug/L	238383	50
Client Sample ID: MW-09-28				**Lab ID:** 1702E41-006			
Collection Date: 2/14/2017 2:00:00 PM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Chloroform	2.7		0.20	1.0	ug/L	238383	1
Tetrachloroethene	1.7		0.46	1.0	ug/L	238383	1
Toluene	1.7		0.39	1.0	ug/L	238383	1
Client Sample ID: MW-09-31				**Lab ID:** 1702E41-009			
Collection Date: 2/15/2017 11:15:00 AM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Chloroform	1.1		0.20	1.0	ug/L	238383	1
Client Sample ID: MW-09-32				**Lab ID:** 1702E41-010			
Collection Date: 2/15/2017 12:20:00 PM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Tetrachloroethene	30		0.46	1.0	ug/L	238383	1
Client Sample ID: MW-09-26XD				**Lab ID:** 1702E41-011			
Collection Date: 2/14/2017 11:05:00 AM				**Matrix:** Groundwater			
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			
Chloroform	700		9.9	50	ug/L	238383	50

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

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **AMEC E&I, Inc.** AES Work Order Number: **1702E41**

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	◉	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	◉	○		
5.	Custody seals intact on shipping container?	○	○	◉		
6.	Temperature blanks present?	○	◉	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	◉	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	◉	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	◉	○	○		SIGNATURE only
10.	Sampler name and/or signature on COC?	◉	○	○		
11.	Were all samples received within holding time?	◉	○	○		
12.	TAT marked on the COC?	◉	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 4.6 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 2/16/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	◉	○	○		
17.	Custody seals present on sample containers?	○	◉	○		
18.	Custody seals intact on sample containers?	○	○	◉		
19.	Do sample container labels match the COC?	◉	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	◉	○	○		
21.	Were all of the samples listed on the COC received?	◉	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	◉	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	◉	○	○		
24.	Were samples received in appropriate containers?	◉	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	◉	○	○		
26.	Were trip blanks submitted?	◉	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). TR 2/16/17

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked?	○	○	◉		Checked at analysis.
29.	Containers meet preservation guidelines?	○	○	◉		Checked at analysis.
30.	Was pH adjusted?	○	○	◉		

I certify that I have completed sections 28-30 (dated initials). TR 2/16/17

Locked

Client: AMEC E&I, Inc.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **MB-238383** Client ID: Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7357069**

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	1.0						26.01			
1,1,2,2-Tetrachloroethane	BRL	1.0						20.17			
1,1,2-Trichloroethane	BRL	1.0						23.38			
1,1-Dichloroethane	BRL	1.0						21.91			
1,1-Dichloroethene	BRL	2.0						18.33			
1,2,4-Trichlorobenzene	BRL	1.0						17.69			
1,2-Dibromo-3-chloropropane	BRL	1.0						22.28			
1,2-Dibromoethane	BRL	1.0						23.82			
1,2-Dichlorobenzene	BRL	1.0						22.79			
1,2-Dichloroethane	BRL	1.0						25.77			
1,2-Dichloropropane	BRL	1.0						21.97			
1,3-Dichlorobenzene	BRL	1.0						21.54			
1,4-Dichlorobenzene	BRL	1.0						21.67			
2-Butanone	BRL	10						36.04			
2-Hexanone	BRL	10						38.53			
4-Methyl-2-pentanone	BRL	10						37.81			
Acetone	BRL	20						52.88			
Benzene	BRL	1.0						20.74			
Bromodichloromethane	BRL	1.0						26.48			
Bromoform	BRL	1.0						32.38			
Bromomethane	BRL	1.0						28.19			
Carbon disulfide	BRL	5.0						34.26			
Carbon tetrachloride	BRL	2.0						28.38			
Chlorobenzene	BRL	1.0						23.18			
Chloroethane	BRL	1.0						23.08			
Chloroform	BRL	1.0						22.38			
Chloromethane	BRL	1.0						20.84			

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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **MB-238383** Client ID: Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7357069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	1.0						19.14			
cis-1,3-Dichloropropene	BRL	1.0						24.02			
Cyclohexane	BRL	2.0						17.30			
Dibromochloromethane	BRL	1.0						28.37			
Dichlorodifluoromethane	BRL	1.0						16.98			
Ethylbenzene	BRL	1.0						20.82			
Freon-113	BRL	5.0						24.51			
Isopropylbenzene	BRL	1.0						19.87			
m,p-Xylene	BRL	1.0						42.72			
Methyl acetate	BRL	2.0						20.95			
Methyl tert-butyl ether	BRL	1.0						19.71			
Methylcyclohexane	BRL	2.0						20.51			
Methylene chloride	BRL	5.0						24.69			
o-Xylene	BRL	1.0						19.29			
Styrene	BRL	1.0						21.78			
Tetrachloroethene	BRL	1.0						23.65			
Toluene	BRL	1.0						20.09			
trans-1,2-Dichloroethene	BRL	2.0						20.48			
trans-1,3-Dichloropropene	BRL	2.0						22.60			
Trichloroethene	BRL	1.0						20.96			
Trichlorofluoromethane	BRL	1.0						28.47			
Vinyl chloride	BRL	1.0						20.30			
Surr: 4-Bromofluorobenzene	42.98	0	50.00		86.0	70	130	51.34			
Surr: Dibromofluoromethane	57.55	0	50.00		115	70	130	51.87			
Surr: Toluene-d8	48.39	0	50.00		96.8	70	130	49.13			

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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **LCS-238383** Client ID: Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7357046**

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	61.32	1.0	50.00		123	70	130	26.01			
1,1,2,2-Tetrachloroethane	48.77	1.0	50.00		97.5	70	130	20.17			
1,1,2-Trichloroethane	60.46	1.0	50.00		121	70	130	23.38			
1,1-Dichloroethane	51.01	1.0	50.00		102	70	130	21.91			
1,1-Dichloroethene	47.90	2.0	50.00		95.8	60	140	18.33			
1,2,4-Trichlorobenzene	56.62	1.0	50.00		113	70	130	17.69			
1,2-Dibromo-3-chloropropane	58.55	1.0	50.00		117	70	130	22.28			
1,2-Dibromoethane	55.59	1.0	50.00		111	70	130	23.82			
1,2-Dichlorobenzene	53.11	1.0	50.00		106	70	130	22.79			
1,2-Dichloroethane	63.59	1.0	50.00		127	70	130	25.77			
1,2-Dichloropropane	51.00	1.0	50.00		102	70	130	21.97			
1,3-Dichlorobenzene	50.48	1.0	50.00		101	70	130	21.54			
1,4-Dichlorobenzene	49.63	1.0	50.00		99.3	70	130	21.67			
Benzene	50.09	1.0	50.00		100	70	130	20.74			
Bromodichloromethane	58.09	1.0	50.00		116	70	130	26.48			
Bromoform	76.15	1.0	50.00		152	70	130	32.38			S
Carbon tetrachloride	63.05	2.0	50.00		126	70	130	28.38			
Chlorobenzene	52.15	1.0	50.00		104	70	130	23.18			
Chloroform	54.69	1.0	50.00		109	70	130	22.38			
cis-1,2-Dichloroethene	49.07	1.0	50.00		98.1	70	130	19.14			
cis-1,3-Dichloropropene	62.59	1.0	50.00		125	70	130	24.02			
Dibromochloromethane	61.76	1.0	50.00		124	70	130	28.37			
Ethylbenzene	50.30	1.0	50.00		101	70	130	20.82			
Isopropylbenzene	47.82	1.0	50.00		95.6	70	130	19.87			
m,p-Xylene	104.2	1.0	100.0		104	70	130	42.72			
Methylene chloride	52.84	5.0	50.00		106	70	130	24.69			
o-Xylene	51.96	1.0	50.00		104	70	130	19.29			

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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **LCS-238383** Client ID: Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7357046**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Styrene	56.15	1.0	50.00		112	70	130	21.78			
Tetrachloroethene	48.54	1.0	50.00		97.1	70	130	23.65			
Toluene	52.15	1.0	50.00		104	70	130	20.09			
trans-1,2-Dichloroethene	45.97	2.0	50.00		91.9	70	130	20.48			
trans-1,3-Dichloropropene	60.73	2.0	50.00		121	70	130	22.60			
Trichloroethene	50.54	1.0	50.00		101	70	130	20.96			
Vinyl chloride	64.75	1.0	50.00		130	70	130	20.30			
Surr: 4-Bromofluorobenzene	50.41	0	50.00		101	70	130	51.34			
Surr: Dibromofluoromethane	55.39	0	50.00		111	70	130	51.87			
Surr: Toluene-d8	50.92	0	50.00		102	70	130	49.13			

Sample ID: **1702E41-012AMS** Client ID: **MW-09-29** Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7359283**

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	70.88	1.0	50.00		142	72.2	142				
1,1,2,2-Tetrachloroethane	46.24	1.0	50.00		92.5	69.5	127				
1,1,2-Trichloroethane	62.18	1.0	50.00		124	75.4	127				
1,1-Dichloroethane	58.02	1.0	50.00		116	64.4	128				
1,1-Dichloroethene	61.69	2.0	50.00		123	64.3	149				
1,2,4-Trichlorobenzene	51.35	1.0	50.00		103	62.3	123				
1,2-Dibromo-3-chloropropane	53.38	1.0	50.00		107	58.9	131				
1,2-Dibromoethane	53.59	1.0	50.00		107	70.8	134				
1,2-Dichlorobenzene	53.86	1.0	50.00		108	66.8	125				
1,2-Dichloroethane	66.15	1.0	50.00		132	71.9	139				
1,2-Dichloropropane	53.58	1.0	50.00		107	73.2	126				
1,3-Dichlorobenzene	52.73	1.0	50.00		105	69.7	123				
1,4-Dichlorobenzene	51.76	1.0	50.00		104	66.8	126				

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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **1702E41-012AMS** Client ID: **MW-09-29** Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7359283**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	57.34	1.0	50.00		115	71.6	132				
Bromodichloromethane	60.67	1.0	50.00		121	71.8	133				
Bromoform	72.82	1.0	50.00		146	58.2	132				S
Carbon tetrachloride	90.27	2.0	50.00		181	61.8	142				S
Chlorobenzene	56.32	1.0	50.00		113	73.1	126				
Chloroform	60.46	1.0	50.00		121	70.1	133				
cis-1,2-Dichloroethene	52.80	1.0	50.00		106	71.4	136				
cis-1,3-Dichloropropene	52.46	1.0	50.00		105	65.9	128				
Dibromochloromethane	61.23	1.0	50.00		122	63.8	134				
Ethylbenzene	59.20	1.0	50.00		118	81.2	130				
Isopropylbenzene	55.01	1.0	50.00		110	66	127				
m,p-Xylene	120.8	1.0	100.0		121	76	139				
Methylene chloride	53.77	5.0	50.00		108	68.4	135				
o-Xylene	58.88	1.0	50.00		118	76.8	137				
Styrene	61.99	1.0	50.00		124	70.1	128				
Tetrachloroethene	63.88	1.0	50.00		128	69.1	133				
Toluene	62.17	1.0	50.00		124	72.5	135				
trans-1,2-Dichloroethene	54.94	2.0	50.00		110	62.4	132				
trans-1,3-Dichloropropene	60.27	2.0	50.00		121	69.7	137				
Trichloroethene	60.45	1.0	50.00		121	70.2	132				
Vinyl chloride	79.38	1.0	50.00		159	55.9	136				S
Surr: 4-Bromofluorobenzene	52.77	0	50.00		106	70	130				
Surr: Dibromofluoromethane	56.64	0	50.00		113	70	130				
Surr: Toluene-d8	51.67	0	50.00		103	70	130				

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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **1702E41-012AMSD** Client ID: **MW-09-29** Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7359284**

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	67.22	1.0	50.00		134	72.2	142	70.88	5.30	20	
1,1,2,2-Tetrachloroethane	46.22	1.0	50.00		92.4	69.5	127	46.24	0.043	20	
1,1,2-Trichloroethane	61.01	1.0	50.00		122	75.4	127	62.18	1.90	20	
1,1-Dichloroethane	56.63	1.0	50.00		113	64.4	128	58.02	2.42	20	
1,1-Dichloroethene	60.73	2.0	50.00		121	64.3	149	61.69	1.57	30.8	
1,2,4-Trichlorobenzene	55.90	1.0	50.00		112	62.3	123	51.35	8.48	36.8	
1,2-Dibromo-3-chloropropane	53.61	1.0	50.00		107	58.9	131	53.38	0.430	20	
1,2-Dibromoethane	55.08	1.0	50.00		110	70.8	134	53.59	2.74	20	
1,2-Dichlorobenzene	55.54	1.0	50.00		111	66.8	125	53.86	3.07	20	
1,2-Dichloroethane	64.96	1.0	50.00		130	71.9	139	66.15	1.82	20	
1,2-Dichloropropane	53.32	1.0	50.00		107	73.2	126	53.58	0.486	20	
1,3-Dichlorobenzene	53.82	1.0	50.00		108	69.7	123	52.73	2.05	20	
1,4-Dichlorobenzene	52.73	1.0	50.00		105	66.8	126	51.76	1.86	20	
Benzene	56.51	1.0	50.00		113	71.6	132	57.34	1.46	20.7	
Bromodichloromethane	59.98	1.0	50.00		120	71.8	133	60.67	1.14	20	
Bromoform	72.16	1.0	50.00		144	58.2	132	72.82	0.910	20	S
Carbon tetrachloride	89.42	2.0	50.00		179	61.8	142	90.27	0.946	20	S
Chlorobenzene	57.07	1.0	50.00		114	73.1	126	56.32	1.32	26.6	
Chloroform	59.11	1.0	50.00		118	70.1	133	60.46	2.26	20	
cis-1,2-Dichloroethene	52.91	1.0	50.00		106	71.4	136	52.80	0.208	20	
cis-1,3-Dichloropropene	53.06	1.0	50.00		106	65.9	128	52.46	1.14	20	
Dibromochloromethane	61.88	1.0	50.00		124	63.8	134	61.23	1.06	20	
Ethylbenzene	60.23	1.0	50.00		120	81.2	130	59.20	1.72	20	
Isopropylbenzene	57.67	1.0	50.00		115	66	127	55.01	4.72	20	
m,p-Xylene	122.2	1.0	100.0		122	76	139	120.8	1.15	20	
Methylene chloride	53.95	5.0	50.00		108	68.4	135	53.77	0.334	20	
o-Xylene	59.62	1.0	50.00		119	76.8	137	58.88	1.25	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.
Project Name: RBTC Fountain Inn
Workorder: 1702E41

ANALYTICAL QC SUMMARY REPORT

BatchID: 238383

Sample ID: **1702E41-012AMSD** Client ID: **MW-09-29** Units: **ug/L** Prep Date: **02/21/2017** Run No: **336880**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **238383** Analysis Date: **02/21/2017** Seq No: **7359284**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Styrene	61.67	1.0	50.00		123	70.1	128	61.99	0.518	20	
Tetrachloroethene	63.73	1.0	50.00		127	69.1	133	63.88	0.235	20	
Toluene	60.41	1.0	50.00		121	72.5	135	62.17	2.87	23.2	
trans-1,2-Dichloroethene	52.87	2.0	50.00		106	62.4	132	54.94	3.84	20	
trans-1,3-Dichloropropene	59.42	2.0	50.00		119	69.7	137	60.27	1.42	20	
Trichloroethene	58.73	1.0	50.00		117	70.2	132	60.45	2.89	27.7	
Vinyl chloride	80.08	1.0	50.00		160	55.9	136	79.38	0.878	20	S
Surr: 4-Bromofluorobenzene	51.66	0	50.00		103	70	130	52.77	0	0	
Surr: Dibromofluoromethane	56.46	0	50.00		113	70	130	56.64	0	0	
Surr: Toluene-d8	49.99	0	50.00		100.0	70	130	51.67	0	0	

APPENDIX F

DATA VALIDATION REPORT

DATA VALIDATION REPORT
REMEDIAL INVESTIGATION ADDENDUM SAMPLING
RBTC FOUNTAIN INN

1.0 INTRODUCTION

Groundwater samples were collected during sampling completed in February 2017 at the Robert Bosch Tool Corporation Fountain Inn Facility located in Fountain Inn, South Carolina. The samples were analyzed by Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia. A summary of the sample delivery group (SDG) and field samples included in this review is contained in Table 1. Samples reviewed in this report were analyzed for the following USEPA SW-846 (USEPA, 1996) method:

- Volatile Organic Compounds (VOCs) in water by USEPA Method 8260B

Sample results were submitted from AES in one sample delivery group (SDG): 1702E41.

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2010; USEPA, 2016). Project data quality criteria for the VOC analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on 100 percent of the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data quality are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J - Estimated value
R - Unusable
U - Undetected
UJ - Undetected and reporting limit is estimated

2.0 VALIDATION OBSERVATION AND ACTIONS

The results are interpreted to be usable as reported by the laboratory.

2.1 VOCs in Water

Results were reported for VOCs by Method 8260. During the Level II review, the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results
- surrogate recovery
- field replicate result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

Holding Times

The VOC samples were analyzed within the required holding time.

Sample Preservation

The samples were received at the laboratory preserved with hydrochloric acid (HCl) to a pH of 2 standard units (s.u.) and cooled to 6^{o}C +/- 2^{o}C. The laboratory narrative indicates that residual chlorine or another oxidizing agent was present in samples MW-09-26, MW-09-26 XD (duplicate of MW-09-26), and MW-09-27. The presence of free chlorine in aqueous samples can cause formation of trihalomethanes and other chemical reactions when preserved with HCL. These three samples had detections of chloroform, which is a trihalomethane. Therefore, this detection of chloroform could be a byproduct of residual chlorine in the groundwater and HCL preservation. Potable water was used for the drilling fluid of these deep, cased wells. The pH of the water in these wells was elevated (10-13 s.u.) during sampling. It's possible that some of the drilling fluid seeped through the casing into the formation during installation of the well and resulted in residual chlorine being captured during sampling.

QC Blanks

QC blanks for VOCs include method blanks, field blanks, rinse blanks, and/or trip blanks. Any result less than 5 times (10 times for common contaminants such as methylene chloride and acetone) the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank, rinse blank, and/or trip blank was considered a possible field artifact. Rinse blanks were not collected. The trip blank was non-detect.

Acetone and toluene were detected in field blanks, but the associated concentrations in site samples were non-detect ("U" flagged), so data qualification was not required. However, chloroform was detected in samples MW-09-28 and MW-09-31 at concentrations less than 5 times the field blank concentration (5.5 micrograms per liter [µg/L] and 5.0 µg/L, respectively). Therefore, the chloroform concentrations in these two samples were qualified as non-detect and flagged "U".

LCS Results

One LCS sample was analyzed in the analytical sequences. In this LCS analysis (LCS-238383), the target compound recovery was outside limits for bromoform, but this compound was not detected in associated samples so data qualification was not required.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. Some of the MS/MSD samples were performed on non-project samples. No discussion of MS/MSDs is necessary for non-project samples since no qualification would be applied to project samples based on recoveries that are outside of recovery limits. The following project MS or MS/MSD samples were analyzed:

An MS/MSD was performed on project sample MW-09-29; recoveries were outside QC limits (high) for bromoform, carbon tetrachloride, and toluene. However, since bromoform, carbon tetrachloride, and toluene were not detected in the parent sample, data qualification was not required.

Field Duplicates Results

Field duplicates for VOCs were collected on one sample: MW-09-26/MW-09-26XD. Field duplicate precision, expressed as Relative Percent Difference (RPD), is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

VOCs were detected in the parent/duplicate samples MW-09-26/MW-09-26XD. RPDs were less than 30 percent, meeting field duplicate precision requirements.

3.0 SUMMARY

The data are usable with the qualification identified for the results associated with:

- Chloroform ("U" flagged) in samples MW-09-28 and MW-09-31.

References:

U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 2010. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540-R-10-011; January 2010.

U.S. Environmental Protection Agency (USEPA), 2016. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540/R-2016-002; September 2016.

Prepared by/Date: Lynne Clem 4/6/17
Checked by/Date: Terrell Parker 4/14/2017

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
REMEDIAL INVESTIGATION ADDENDUM SAMPLES
RBTC-FOUNTAIN INN FACILITY
SOUTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
Ground Water Samples					
MW-09-26	MW-09-26	2/14/2017	VOCs	8260B	1702E41
	MW-09-26XD	2/14/2017	VOCs	8260B	1702E41
MW-09-27	MW-09-27	2/14/2017	VOCs	8260B	1702E41
MW-09-28	MW-09-28	2/14/2017	VOCs	8260B	1702E41
MW-09-29	MW-09-29 (a)	2/14/2017	VOCs	8260B	1702E41
MW-09-30	MW-09-30	2/14/2017	VOCs	8260B	1702E41
MW-09-31	MW-09-31	2/15/2017	VOCs	8260B	1702E41
MW-09-32	MW-09-32	2/15/2017	VOCs	8260B	1702E41
QUALITY CONTROL SAMPLES					
--	TB-01	2/14/2017	VOCs	8260B	1702E41
--	FB-01	2/14/2017	VOCs	8260B	1702E41
--	FB-02	2/15/2017	VOCs	8260B	1702E41

Notes:

(a) This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (VOCs).
Samples were analyzed by Analytical Environmental Services, Inc. (AES) laboratory located in Atlanta, Georgia.
SDG = Sample Delivery Group
VOCs = Volatile Organic Compounds
XD = Field Duplicate Sample

Prepared by/Date: LWC 4-6-17
Checked by/Date: JTP 4-12-17

TABLE 2
VALIDATION QUALIFIER SUMMARY
REMEDIAL INVESTIGATION ADDENDUM
RBTC-FOUNTAIN INN FACILITY
SOUTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
W	MW-09-28	2/14/2017	1702E41	8260	Chloroform	µg/L	2.7		2.7	U	BL2
W	MW-09-31	2/15/2017	1702E41	8260	Chloroform	µg/L	1.1		1.1	U	BL2

Notes:
Laboratory qualifiers that *did not change* as a result of the data validation are not shown on this table.
BL2 - Concentration in sample less than 5 times (10 times for common contaminants) concentration in rinse blank or trip blank sample.
U - not detected, value is the detection limit
W - Water
µg/L - microgram per liter

Prepared by / Date: LWC 4/13/17
Checked by / Date: JTP 4/14/17

Relative Percent Differenc (RPD) on Groundwater Field Duplicate Samples - Remedial Investigation Addendum
Former Vermont Bosch Site Fountain Inn, Souh Carolina
AMEC Foster Wheeler Project 6251161022.01.03

Constituents	Units	MW-09-26 2/14/2017	MW-09-26XD 2/14/2017	RPD
Chloroform	µg/L	730	700	4.2

Notes:
µg/L = micrograms per liter

Prepared By/Date: L. Clem 4/6/2017
Checked By/Date: T. Parker 4/12/17

DATA VALIDATION RECORD

Method SW8260B for VOCs
Project Name and No: RBTC Fountain Inn; 6251161022.01.03
Laboratory and SDG: Analytical Environmental Services, Inc. (AES), 1702E41
Data Validation Level: II
Date: 4/6/2017
Reviewer: L. Clem Senior Reviewer: T. Parker 4/14/2017
Samples Reviewed: MW-09-26, MW-09-26XD, MW-09-27, MW-09-28, MW-09-29, MW-09-29 MS/MSD, MW-09-30, MW-09-31, MW-09-32, FB-01, FB-02, and TB-01.

1. Case Narrative and COC review

Case Narrative (pg. 3 of data package) and COC (pg. 2 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (Preserved with Hydrochloric Acid (HCl); Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved with HCl; cooler temp 4.6ºC, per "Sample/Cooler Receipt Checklist" pg. 29 of Summary. Samples collected: 2/14/17, 2/15/17; Samples Prepped and Analyzed: 2/21/17, 2/22/17.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. QC Blanks

Method Blanks:

Pgs. 30-31, 2/21/17, MB-238383, No detects

Field Blank

FB-01, 2/14/17, pgs. 6-7, Acetone=35 µg/L x 10=350 µg/L, Chloroform=1.1 µg/L x 5=5.5 µg/L, Toluene=2.4 µg/L x 5= 12.
Acetone and toluene were not detected in the associated samples – no flags.

Associated Samples	Compound	Concentration	Flag U (BL2)
MW-09-28	Chloroform	2.7	U at 2.7

FB-02, 2/15/17, pgs. 8-9, Acetone=43 µg/L x 10=430 µg/L, Chloroform=1.0 µg/L x 5=5.0 µg/L, Toluene=2.5 µg/L x 5= 12.5.

Acetone and toluene were not detected in the associated samples – no flags.

Associated Samples	**Compound**	**Concentration**	**Flag U (BL2)**
MW-09-31	Chloroform	1.1	U at 1.1

Rinse Blank

Rinse Blank not included in this SDG.

Trip Blank

TB-01, pgs. 4-5, No detects.

6. Laboratory Control Sample (LCS) Results (Lab limits)

LCS-238383, pgs. 32-33,

Compound	LCS % Rec	Flag	Reason Code
Bromoform	152	none	not detected

7. Internal Standards (50 - 200 %)

Not required for Level II.

8. Surrogate Recovery (70-128%)

All surrogates within lab limits.

9. Field Duplicate Precision (≤ 30 %)

MW-09-29/ MW-09-29XD

Compound	**Sample**	**Duplicate**	**RPD**	**Flag**
Chloroform	730	700	4.2	none

10. Matrix Spike/Matrix spike Duplicate (MS/MSD) (55.9-149 %/RPD ≤ 20-36.8 %)

Pgs. 33-36, 1702E41-012AMS/1702E41-012AMSD, project sample MW-09-29.

Compound	MS%Rec	MSD%Rec	%RPD	Flag	Reason Code
Bromoform	146	144	0.91	none	not detected
Carbon Tetrachloride	181	179	0.946	none	not detected
Vinyl Chloride	159	160	0.878	none	not detected

11. Raw Calculations

Not required for Level II

12. Electronic Data Review

Ten percent of the EDD results for VOCs (samples MW-09-28, MW-09-32) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

APPENDIX G

DISPOSAL MANIFESTS

4240-1

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: RBTC
Address: 800 Woodside Ave
City: Fountain Inn County: Lexington
State: SC Zip: 29644
Site Location (if different):

CUSTOMER/BILLING INFORMATION

Billing Name: A&D Environmental Services (SC), LLC
Address: 1741 Calks Ferry Rd
City: Lexington County:
State: SC Zip: 29073

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
3115175285	Soil	23.10 T	7/31/2017	CTN
		23		

* Attach additional sheet if necessary

I hereby certify that the above described materials are non hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and

Lori Mauldin RNEC EM agent for Republic — 4-26-17
Authorized Agent Name — Signature — Date Delivered

TRANSPORTER INFORMATION

Transporter Name: A&D Environmental Services (SC), LLC
Address: 1741 Calks Ferry Road
City: Lexington County: Lexington
State: SC Zip: 29073
DOT #: 559735
Truck Number: 0114
Phone Number: 803.957.9175

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge

Doug Flanagan — 4-26-17
Authorized Agent Name — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Republic Services-Union County Reginal Landfill I hereby acknowledge receipt of the above described materials

Address: 866 Wildcat Road
City: Enoree County:
State: SC Zip: 29335
Phone Number: 864-969-4460

Name (print or Type):
Signature:
Date Received 4-26-17

SITE
UPSTATE REGIONAL MSW LANDFILL 864-969-4460
868 Wildcat Road -Enoree, SC 29335

CUSTOMER 000729
A & D ENVIRONMENTAL SERVICES - NO FEES
P.O. BOX 464
HIGH POINT, NC 27261
Contract:0115176C85
Generator:RBIC

SITE 01 | TICKET # 1068423 | CELL

WEIGH-MASTER Tonya S.

DATE/TIME IN 4/26/17 2:10 pm | DATE/TIME OUT 4/26/17 2:18 pm

VEHICLE AAD1147DYD | CONTAINER

REFERENCE 42617-1

BILL OF LADING

SCALE IN GROSS WEIGHT 52,800 NET TONS 7.57 INBOUND
TARE OFF TARE WEIGHT 37,660 NET WEIGHT 15,140 INVOICE

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
40.00	EA	Trucking OFF				
7.57	tn	SW-CONT SOIL Origin:GREENVILLE CO SC 1001				

TOTAL AMOUNT

TENDERED

CHANGE

CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/13)

SIGNATURE _____

A&D Environmental Services — Bill of Lading / Material Manifest

A&D Job No:	Generator ID Number	Page 1 of	Emergency Response Phone	Tracking Number
219129		1	800-434-7750	06231

Generator's Name and Mailing Address: RBTC, 800 Woodside Ave, Fountain Inn SC 29644

Generator's site address (if different from mailing address)

Transporter 1 [X] 2 [ ] Company Name: **A&D Environmental Services, Inc.** — US EPA ID No: **NCD98623222**

Transporter 1 [ ] 2 [ ] Company Name: **A&D Environmental Services (SC), LLC** — US EPA ID No: **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	[X] Designated Facility	Designated Facility
A&D Environmental Services, Inc. 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	A&D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	A&D Environmental Services (SC), LLC 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	A&D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	A&D Environmental Services (SC), LLC 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	NON Regulated Material	1	TT	500	G	

	Petroleum Products for Recycle		No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Diesel fuel, 3, III	ERG# 128					
X	NA1993, Fuel oil (No.1,2,4,5 or 6), 3, III	ERG# 128					
X	UN1203, Gasoline, 3, II	ERG# 128					
X	NA1270, Petroleum Oil, 3, III	ERG# 128					

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle

HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)		Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	ERG# 172	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III	ERG# 172	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III	ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III	ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III	ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II	ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)		Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)		Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Kaw Mauldin AMEC EN, agent for Bosch	K Kaw Mauldin	05	04	17
Transporter 1 Printed/Typed Name	**Signature**	**Month**	**Day**	**Year**
Luis Ocampo	Luis Ocampo	05	04	17
Transporter 2 Printed/Typed Name	**Signature**	**Month**	**Day**	**Year**

Discrepancy Indication / Additional Information:

		Month	Day	Year

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name	Signature	Month	Day	Year
Jordan Willett	Jordan Willett	05	04	17

TRANSPORTER COPY TO GENERATOR