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June 14, 2019

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Ms. Cynde Devlin, Project Manager
SC Department of Health and Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201

**SITE ASSESSMENT,
REMEDIATION &
REVITALIZATION**

Re: Spring 2019 Semi-Annual Groundwater Monitoring Report
Delavan Spray Technologies Site
Bamberg, South Carolina
SCDHEC VCC Number 13-4762-RP
SCDHEC File Number 51778
AECOM Project Number 60601883

Dear Ms. Devlin:

On behalf of United Technologies Aerospace Systems (UTAS), AECOM is providing you one (1) hard copy and one (1) electronic copy of the Spring 2019 Semi-Annual Groundwater Monitoring Report for the Delavan Spray Technologies Site. This report is being submitted to the Department in accordance with the Remedial Investigation Work Plan (Hart & Hickman, August 1, 2013) and voluntary clean-up contract (VCC) number 13-4762-RP, which was signed on July 3, 2013.

If you have any questions or require further information, please feel free to contact me.

Sincerely,

AECOM Technical Services, Inc.

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Spring 2019 Semi-Annual Groundwater Monitoring Report

**Delavan Spray Technologies Site
4334 Main Highway
US Highway 301 South
Bamberg, South Carolina**

VCC 13-4762-RP

RECEIVED

Prepared by:

AECOM Technical Services, Inc.
10 Patewood Drive
Building 6, Suite 500
Greenville, South Carolina

JUN 17 2019

**SITE ASSESSMENT,
REMEDIATION &
REVITALIZATION**

June 14, 2019

SPRING 2019 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

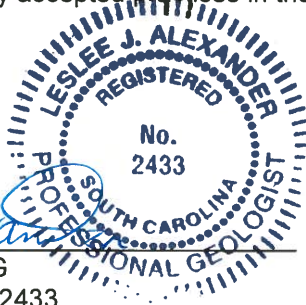
DELAVAN SPRAY TECHNOLOGIES SITE BAMBERG, SOUTH CAROLINA

RESPONSIBILITY PARTY VOLUNTARY CLEANUP CONTRACT NUMBER 13-4762

The undersigned certify that they have reviewed the attached document and that the document is in material compliance with the guidelines and requirements of the State of South Carolina and the South Carolina Department of Health and Environmental Control (SCDHEC) and specifically, requirements under the SCDHEC Voluntary Cleanup Contract (VCC). The data presentations contained herein are consistent with generally accepted practices in the environmental profession.

Prepared by:


Leslee J. Alexander, PG
South Carolina PG No. 2433
AECOM Project Hydrogeologist



June 14, 2019

Date

Reviewed by:


Conan Fitzgerald
AECOM Project Manager

June 14, 2019

Date

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1.0 INTRODUCTION

AECOM Technical Services, Inc. (AECOM) has prepared this *Spring 2019 Semi-Annual Groundwater Monitoring Report* for the Delavan Spray Technologies Site (the Site). The Site is located at 4334 Main Highway (US Highway 301 South) in Bamberg, South Carolina (Figure 1). The spring 2019 semi-annual groundwater sampling was completed to meet the on-going monitoring requirements of Voluntary Cleanup Contract (VCC) (VCC 13-4762-RP) that was signed between South Carolina Department of Health and Environmental Control (SCDHEC) and Delavan Spray, LLC (Delavan; SCDHEC, 2013) and in accordance with the *Remedial Investigation Work Plan* (Hart & Hickman, 2013) approved by SCDHEC October 22, 2013.

This report provides a brief overview of the Site (Section 2.0), describes the sampling activities (Section 3.0), and presents the results (Section 4.0). Conclusions and recommendations based on the results are discussed in Section 5.0. Cited references are provided in Section 6.0.

2.0 OVERVIEW OF THE SITE

The facility manufactures several types of metal spray nozzles for fuel oils. The Site is comprised of a main manufacturing building and smaller associated support buildings, which are located on approximately 20 acres. A Site layout map is provided as Figure 2.

2.1 Background

Assessment activities were initiated at the Site in 2003, after chlorinated volatile organic compounds (VOCs) were detected in groundwater beneath the Site. The primary compounds of concern were reported to be tetrachloroethene (PCE) and its degradation products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

In 2005, Hart & Hickman, PC (H&H) injected Hydrogen Release Compound[®] (HRC) into shallow groundwater to stimulate natural biodegradation of chlorinated compounds in groundwater. Post-injection monitoring was conducted by H&H between 2005 and 2007. The results indicated that chlorinated compound concentrations were reduced in Site groundwater. However, VOCs remained in the groundwater at these locations at concentrations exceeding the United States Environmental Protection Agency (USEPA) maximum contaminant levels (MCLs) for drinking water.

Between 2007 and 2011, H&H conducted multiple groundwater assessments at the Site and surrounding area to further delineate the horizontal and vertical extent of VOCs detected in groundwater. A semi-annual groundwater monitoring program was also instituted to evaluate any changes to groundwater conditions at the Site.

A source area investigation was completed at the Site in August 2012 to determine the nature and general extent of potential compounds of interest (PCOIs) at the Site. The results of the August 2012 assessment indicated that VOC impacts to soil and groundwater are present at the former PCE underground storage tank (UST), and soil VOC impacts are present at both of the former degreaser areas, the former northern secondary containment area, and the northeastern wooded area. No soil VOC impacts were identified in the northwestern wooded area, and no VOC groundwater impacts were identified at the former northern secondary containment area (H&H, 2012 and 2013).

On July 5, 2013, a VCC between Delavan Spray, LLC and SCDHEC was executed (VCC 13-4762-RP). In accordance with Section 3 of the VCC, a Remedial Investigation (RI) was conducted in February/March 2014 (AECOM, 2014). The RI results provided further delineation of VOCs in soil and groundwater beneath the Site. Furthermore, the RI sampling results were used in conjunction with existing data to complete a Human Health Risk Assessment (HHRA) and an Ecological Risk Assessment.

No additional VOC source areas were identified in soil as a result of the RI. However, following their review of the RI report, SCDHEC requested additional soil assessment to delineate VOC impacts in the

vicinity of the northern former degreaser and additional monitoring wells to delineate VOC impacts in the shallow and deeper (limestone) aquifers. The additional assessment activities were incorporated into the *Post RI Work Plan* (AECOM, 2015), which was implemented in late November 2015. The analytical results were presented in the *Post RI Report* (AECOM, May 2016) and provided further delineation of VOCs in soil and groundwater at the Site.

Following the *Post RI Report*, SCDHEC requested a “work plan for delineation of the shallow and deep groundwater plumes.” The *Groundwater Delineation Work Plan* (AECOM, September 2016), which included groundwater screening with temporary wells and permanent monitoring well installation, was approved by SCDHEC in correspondence dated October 31, 2016, and was implemented between March 27, 2017 and May 10, 2017. The results of the investigation, which are documented in the *Groundwater Delineation Report* (AECOM, June 2017), confirmed the presence of PCE concentrations greater than the MCL in the limestone aquifer monitoring wells ~3,200 feet south/southwest of the Site.

SCDHEC approved the *Groundwater Delineation Report* in correspondence dated June 26, 2017 and agreed with the report’s recommendation that additional delineation was needed for PCE in the limestone aquifer south/southwest of the monitoring well network. The *Limestone Aquifer Assessment Work Plan* was submitted to SCDHEC on October 13, 2017 to address these recommendations. Delavan and AECOM participated in a conference call with SCDHEC on June 27, 2018 to discuss potential next steps and revisions to the additional assessment activities proposed in the *Limestone Aquifer Assessment Work Plan* (AECOM, October 2017). The revised work plan was submitted on August 27, 2018 and approved in correspondence from SCDHEC dated September 20, 2018. UTC and AECOM are currently in the process of securing the off-site access agreements needed to implement the work.

After their review of the *Limestone Aquifer Assessment Work Plan*, in correspondence dated December 18, 2017, SCDHEC requested that Delavan conduct sampling of residential drinking water wells downgradient of the Site. Delavan and AECOM worked with SCDHEC to sample select residential drinking water wells:

- Along Lemon Creek and Orange Grove Roads between US Highway 301 (Main Highway) and US Highway 601 (Broxton Bridge Road) south/southwest of the Site;
- Along Broxton Bridge Road between US Highway 301 and Orange Grove Road southeast of the Site; and
- Along US Highway 301 southwest of the Site.

Samples were collected from 28 residential wells between January and April, 2018, and submitted for analysis of PCE and select degradation products (Figure 3). In 8 of the samples, PCE was detected at low levels below its USEPA MCL of 5 micrograms per liter (µg/L). PCE was not detected in the remaining residential well samples (AECOM, February 2018; June 2018).

Although the PCE detections in the residential wells were well below the MCL, Delavan offered to install granular activated carbon (GAC) treatment units on the wells where the PCE was detected at no cost to the residents. All 8 impacted residents elected to have GAC units installed. The GAC treatment units were installed in July 2018 and treatment verification sampling was completed in August and September 2018. A technical memorandum documenting the installation of GAC treatment systems and the associated sampling was submitted to SCDHEC January 15, 2019.

In addition to completing the off-site delineation, Delavan feels that it is prudent to address elevated concentrations of chlorinated VOCs (cVOCs) in residual “source areas” beneath the Facility, specifically where there are “hot spots” in shallow groundwater in the vicinity of the former PCE degreasers and the former PCE underground storage tank. As such, AECOM, on behalf of Delavan, submitted the *Focused Feasibility Study* to SCDHEC on July 12, 2017. This report was not requested by SCDHEC and was submitted preemptively so that, with SCDHEC concurrence, Delavan could begin steps to mitigate source areas while delineation is on-going in the limestone aquifer down-gradient of the Facility. Delavan and AECOM have also prepared a work plan for high resolution site characterization of the “hot spots” beneath the Facility using membrane interface probe (MIP) and hydraulic profiling tool (HPT) technology. This work plan was submitted to SCDHEC on February 11, 2019 and was approved by SCDEHC in correspondence dated March 1, 2019. The results of the investigation will be used to design a pilot study to test a remedy for the residual “source areas” beneath the Facility. A bid walk for prospective contractors to complete the MIP/HPT work is currently scheduled for the end of June 2019.

2.2 Geology

The Site lies within the western portion of the South Carolina Coastal Plain Province, which is characterized as a seaward thickening wedge of sediments from the fall line to the coast. These sediments consist of sands, silts, clays and limestones; representing a variety of non-marine and marine depositional environments.

For the purposes of Site characterization, the Delavan Spray Technologies Site geology has been subdivided into three general geologic zones by previous investigators. The upper zone consists of undifferentiated sands, clayey sands, sandy clays, and silts. In the northern portion of the Site, these sediments tend to contain a higher percentage of clay and silty layers. The middle zone consists of fossiliferous limestone; with a layer of pale yellow, poorly cemented, coarse shell fragments overlying a layer of white, better cemented limestone containing finer-grained shell fragments. The lower geologic zone is a loose to moderately cemented, calcareous, fine- to medium-grained clayey sandstone. The relationship of these geologic zones was previously illustrated on generalized cross-sections Figures 4, 5 and 6 of the *RI Work Plan* (H&H, 2013).

2.3 Hydrogeology

Groundwater occurrence in the Coastal Plain is typically within the intergranular pore spaces of the sands, silts and limestones (primary porosity) and within solution cavities or fractures of indurated sediments (secondary porosity). Primary production of groundwater occurs from within the more permeable units, while lower permeability clay layers typically retard groundwater movement. Recharge for significant aquifers in the Coastal Plain occurs both as transport from up-dip areas, toward the Fall Line, where the sediments are generally exposed at the land surface and as leakage from adjacent aquifer units through lower permeability aquitards.

3.0 GROUNDWATER MONITORING PROCEDURES

Spring 2019 semi-annual sampling activities were completed by AECOM personnel during April 22-24, 2019. Monitoring activities were conducted in accordance with the procedures described in the *RI Work Plan* (H&H, 2013) and the sampling plan presented in the *Fall 2018 Semi-Annual Groundwater Monitoring Report* (AECOM, January 2019).

Semi-annual groundwater monitoring activities included:

- Groundwater level measurements were collected from all 41 existing monitoring wells;
- Groundwater samples were collected from 28 existing monitoring wells (Figure 2) using low-flow sampling techniques. Groundwater indicator parameters were collected from each well and all 28 samples were submitted for analysis of VOCs; and
- Collection of a composite sample from one drum of aqueous investigation-derived waste (IDW) for analysis of VOCs, semi-volatile organic compounds (SVOCs) and priority pollutant metals for IDW characterization purposes.

In addition, groundwater samples were collected from 10 residential wells in conjunction with this event (Figure 3). Residential well sampling activities and results are presented in a separate technical memorandum, which has been included as Appendix A.

The depth to water in the monitoring wells was measured using an electronic water level meter on April 22, 2019, prior to the start of sampling activities. The water levels were used to create potentiometric maps of the aquifer zones discussed in Section 4.1 below.

Monitoring wells were purged using a peristaltic pump and water levels were monitored during purging. Groundwater quality indicator parameters of pH, specific conductance, dissolved oxygen, oxidation-reduction potential (ORP), turbidity, and temperature were monitored during the groundwater purging process and recorded on the Field Data Logs for Groundwater Sampling, which are included in Appendix B. Samples were collected once the parameters had stabilized in accordance with the low-flow sampling procedure in the work plan (H&H, 2013). Note – one of the water quality meters malfunctioned during sampling of well MW-10, MW-14, and MW-21. Measurements of pH, dissolved oxygen and ORP from these wells are considered suspect and are not included in the discussions of indicator parameters for the shallow aquifer zone in Section 4.2.

Upon collection, all groundwater samples were labeled, preserved on ice, and kept under chain-of-custody protocol until received at the subcontract analytical laboratory. The samples were received by the laboratory in good condition with no QA/QC issues. Chain-of-custody forms are included in Appendix B.

All monitoring well groundwater samples were analyzed for VOCs by USEPA Method 8260B. The aqueous IDW sample was analyzed for VOCs by USEPA Method 8260B, SVOCs by USEPA Method 8270D, and priority pollutant metals by USEPA Methods 6010C and 7470B. Monitoring well groundwater and aqueous IDW samples were analyzed by Accutest Laboratories, located in Orlando, Florida, a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and State of South Carolina certified laboratory. Laboratory analytical data packages are provided in Appendix C.

4.0 RESULTS

4.1 Groundwater Flow

Water level measurements were collected on April 22, 2019 and are summarized on Table 1 along with their corresponding groundwater elevations. Groundwater elevations measured in monitoring wells completed in the shallow aquifer zone were used to create a potentiometric map of the water-table surface (Figure 4). The spring 2019 water levels within the shallow aquifer zone occur between 132.61 and 139.96 feet in elevation. Shallow water level elevations are up to 2.9 feet higher than those collected during the fall 2018 groundwater monitoring event (October 2018). Compared to water levels measured during the spring 2018 groundwater monitoring event (May 2018), April 2019 water levels are generally 0.6 feet to 1.7 feet higher. These differences are likely attributable to higher than average precipitation in late 2018 and early 2019. Shallow flow patterns resulting from the spring 2019 water level measurements are similar to those observed previously at the Site. The equal potential lines indicate groundwater flow beneath the northern portion of the Facility varies between southwestward and northeastward flow directions, with local groundwater highs at MW-4 and MW-17. Groundwater levels appear depressed at MW-3, MW-8, MW-18, and MW-21. This phenomenon was previously recognized in the *RI Work Plan* (H&H, 2013) and characterized as a “groundwater trough”, a feature that has been observed to extend to MW-9 and MW-20 during previous field investigation efforts. The variances in groundwater elevation and flow directions in this portion of the Site could be the result of preferential flow pathways resulting from higher permeability zones due to local facies changes or induced drainage from the sanitary sewer line or incised drainage ditch, which forms the northern boundary of the Facility. However, the primary horizontal groundwater flow direction is inferred to be toward the west, toward Halfmoon Branch, which is consistent with findings from prior investigations conducted at the Site. The three wells on the Kinsey property to the west of the Site indicate the presence of an isolated groundwater high at MW-27, consistent with the findings of the spring 2017 through fall 2018 groundwater monitoring events.

Based on the April 2019 water level elevations within the deeper limestone aquifer zone, the potentiometric surface occurs between 130.97 feet and 134.81 feet in elevation (Figure 5). Groundwater elevations in April 2019 are up to 1.4 feet higher than those measured during the fall 2018 groundwater monitoring event (October 2018) and up to 1.1 feet higher than those collected during the spring 2018 groundwater monitoring event (May 2018). From the equal potential lines, the inferred horizontal groundwater flow direction is to the south-southwest and is consistent with regional topography, drainage and findings from prior investigations conducted at the Site.

4.2 Groundwater Quality

Groundwater quality indicator parameters, including pH, specific conductance, dissolved oxygen and ORP were measured in the field during the well purging and sampling process. A summary of the groundwater quality indicator parameters is presented in Table 2. The groundwater sampling logs are included in Appendix B. Analytical data are included in Appendix C and the analytical results for the

monitoring wells are summarized in Table 3. Historic data trends for VOCs detected since the RI (AECOM, 2014) are presented in Appendix D and trend plots of VOCs and groundwater elevation versus time for select monitoring wells are included in Appendix E.

Shallow Aquifer Zone Monitoring Wells

VOCs

In the 17 groundwater samples collected from shallow aquifer zone groundwater during the spring 2019 semi-annual monitoring, six VOCs (PCE, TCE, cis-1,2-DCE, 1,1-DCE, 1,1,1-trichloroethane [1,1,1-TCA], and toluene) were detected (Table 3). Three of these compounds, (PCE, TCE, and cis-1,2-DCE) exceeded their respective MCLs in one or more samples of shallow groundwater.

PCE was the most frequently detected VOC in shallow aquifer zone groundwater samples (10 detections) and groundwater concentrations exceeded the MCL (5 micrograms per liter [µg/L]) in nine shallow monitoring wells (MW-1, MW-3, MW-8, MW-9, MW-10, MW-19, MW-20, MW-21, and MW-24; Figure 6). The highest concentrations were detected near the northern Former PCE Degreaser in MW-19 (24,400 µg/L) and adjacent to the Former PCE UST in MW-21 (20,800 µg/L), which is consistent with most sampling events since the wells were installed in February/March 2014. Elevated but lower concentrations of PCE were detected in shallow aquifer groundwater in MW-24 (2,290 µg/L) along the western property boundary, in the vicinity of the southern Former PCE Degreaser in MW-20 (466 µg/L), in MW-9 (513 µg/L) and MW-10 (82.8 µg/L) located in the wooded areas of interest, in MW-1 (195 µg/L) adjacent to the Former PCE Secondary Containment Area, in MW-8 (174 µg/L) located in the asphalt parking lot northeast of the main Facility building, and in MW-3 (132 µg/L) downgradient of the Former PCE Secondary Containment Area.

Detected TCE concentrations that exceeded the MCL occur across a smaller footprint than the PCE impacts and are coincident with the “hot-spots” of the PCE plume (Figure 7). TCE concentrations were detected in seven shallow monitoring wells and exceeded the MCL (5 µg/L) in four groundwater samples –MW-8 (14.2 µg/L), MW-9 (47.1 µg/L), MW-10 (28.3 µg/L), and MW-21 (314 µg/L).

Cis-1,2-DCE was detected in seven shallow monitoring well locations and exceeded the MCL (70 µg/L) in two monitoring wells –MW-10 (72.6 µg/L), and MW-21 (817 µg/L; Figure 8). The detections of cis-1,2-DCE in the shallow aquifer correspond to “hot-spots” of PCE and TCE.

There were no exceedances of VOC MCLs in groundwater samples collected from off-Site wells screened in the shallow aquifer zone.

Indicator Parameters

Groundwater quality indicator parameters were monitored for all shallow monitoring wells during the groundwater purging process and recorded on the Field Data Logs for Groundwater Sampling, which are included in Appendix B. Select indicator parameters are summarized in the inset table below, along with their observed ranges and their optimal ranges for anaerobic biodegradation based on USEPA guidance (1998). Based on this information, dissolved oxygen is in the favorable range for the reductive pathway in two shallow monitoring wells sampled in April 2019 (i.e., MW-15, and MW-16) and not tolerated in six shallow monitoring wells (MW-1, MW-3, MW-5, MW-7, MW -24, and MW-27). ORP is not favorable in any location. The pH was in the favorable range in 7 of 17 shallow wells sampled (i.e., MW-1, MW-5, MW-8, MW-15, MW-27, MW-28, and MW-29). The low pH and elevated ORP levels observed over much of the shallow aquifer zone may inhibit natural degradation of chlorinated VOCs.

Analysis	Minimum	Maximum	Average	Optimal Range for Anaerobic Biodegradation Processes*
pH (S.U.)	4.07	7.31	5.12	5 < pH < 9 - Optimal range for reductive pathway 5 > pH > 9 - Outside optimal range for reductive pathway
Dissolved Oxygen (mg/L)	0.09	7.54	3.51	<0.5 mg/L - Tolerated, suppresses the reductive pathway at higher concentrations >5 mg/L - Not tolerated; however, VC may be oxidized aerobically
ORP (mV)	88.6	407.6	287.3	<50 millivolts (mV) - Reductive pathway possible <-100mV - Reductive pathway likely

* - from the *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998).

ND - not detected

Data Trends

As shown in the table of historical VOC results (Appendix D) and the trend plots (Appendix E), the VOC concentrations in many wells have decreased with time from their highest values. For instance, the PCE concentration in MW-1, located adjacent to the Former PCE Secondary Containment Area, has decreased from a historic high of 15,000 µg/L in June 2003 to the current concentration of 195 µg/L, its lowest value in the sampling record. The PCE concentrations in MW-9 and MW-10 have decreased from maximums of 7,500 µg/L and 5,800 µg/L, respectively, detected in December 2003. Since those maximums in December 2003, concentrations have overall been decreasing and April 2019 PCE concentrations are 513 µg/L and 82.8 µg/L, respectively.

Other wells, such as MW-3, located immediately downgradient of the Former PCE UST and the Former PCE Secondary Containment Area, exhibit mixed trend results. The PCE concentration in MW-3 has decreased from a high of 391 µg/L in October 2010 to an estimated value of 0.92 J µg/L in April 2015. The PCE concentration in MW-3 then increased to 199 µg/L in April 2017 before decreasing to 77.30 µg/L in October 2017. The current concentration (132 µg/L) is within the range of recent results. In addition, PCE concentrations in MW-8 decreased from a historic high (491 µg/L) in May 2012 to 7.8 µg/L in April

2016. PCE concentrations in MW-8 have increased since then, and the current concentration of 174 µg/L is the second highest since May 2012.

Concentrations of PCE in groundwater from MW-19, located near the northern-most Former PCE Degreaser, exhibited an increasing trend between October 2014 (14,000 µg/L) and October 2016 (34,600 µg/L). The PCE concentration of MW-19 decreased to 18,700 µg/L in May 2018 but then increased to 24,400 µg/L in April 2019. The detected PCE concentration in down-gradient well MW-24, located on the western edge of the property, has been on an increasing trend from 344 µg/L in December 2015 to a current concentration of 2,290 µg/L. The elevated concentrations observed since April 2017 are likely a result mass migrating from the hot-spot near MW-19. Other wells, such MW-20, which is located near the southern-most Former PCE Degreaser and has a current concentration of 466 µg/L, exhibit detected PCE concentration trends that seem to fluctuate with groundwater elevation changes (i.e., the concentrations decrease when water levels are low and increase when water levels are higher). This may indicate residual VOCs in the vadose zone near former source areas.

The VOC concentrations in groundwater from MW-21, located near the Former PCE UST, were relatively stable early in the monitoring history (i.e., detected PCE concentrations of 13,200 µg/L to 16,300 µg/L between March 2014 and April 2016), but decreased to 181 µg/L during the October 2016 event. The October 2016 PCE concentration appears to be anomalously low, as the concentrations have been increasing since then, with a new high concentration of 25,600 µg/L in May 2018 and a current concentration of 20,800 µg/L.

Deeper Aquifer Zone Monitoring Wells

VOCs

Eleven groundwater samples were collected from deeper limestone aquifer zone groundwater during the spring 2019 monitoring event, resulting in five VOCs (PCE, TCE, cis-1,2-DCE, 1,1,1-TCA, and 1,1-DCE) that were detected (Table 3). Of these compounds, PCE, TCE, and cis-1,2-DCE exceeded their respective MCLs in one or more samples.

PCE was detected in all 11 deeper aquifer zone groundwater samples (MW-3D, MW-12D, MW-13D, MW-14D, MW-21D, MW-22D, MW-25D, MW-26D, MW-30D, MW-31D, and MW-32DR) and groundwater concentrations exceeded the MCL (5 µg/L) in all 11 of these samples (Figure 9). The detected PCE concentration was highest in the deeper limestone aquifer down-gradient of the southeast corner of the main building, down-gradient of areas where PCE has been used historically on-Site (296 µg/L at MW-3D). PCE concentrations exceeded the MCL (5 µg/L) in on-site down-gradient monitoring wells MW-12D (92.1 µg/L), MW-13D (170 µg/L), and MW-21D (38.7 µg/L) and in off-Site down-gradient monitoring wells MW-14D (80.6 µg/L), MW-22D (133 µg/L), MW-25D (195 µg/L), MW-26D (89.9 µg/L), MW-30D (149 µg/L), MW-31D (232 µg/L), and MW-32DR (33.9 µg/L).

TCE concentrations were detected in five samples from the deeper aquifer zone in spring 2019. All of the detected concentrations were below the MCL of (5 µg/L), except for one sample in on-Site well MW-3D (9 µg/L) (Figure 10). TCE was also detected in off-Site down-gradient wells MW-14D, MW-25D, MW-26D, and MW-32DR but at low concentrations below the MCL.

Cis-1,2-DCE was detected in 6 samples from deeper aquifer zone groundwater during the spring 2019 monitoring event (MW-3D, MW-14D, MW-21D, MW-25D, MW-26D, and MW-30D). None of the detected concentrations exceeded the MCL for cis-1,2-DCE (70 µg/L; Figure 11).

The groundwater contaminant plume in the deeper limestone aquifer is limited to PCE, as concentrations of all other constituents are either below their respective MCLs or not detected.

Indicator Parameters

Groundwater quality indicator parameters were monitored in all deeper limestone aquifer monitoring wells during the groundwater purging process and recorded on the Field Data Logs for Groundwater Sampling, which are included in Appendix B. Select indicator parameters are summarized in the inset table below, along with their observed ranges and their optimal ranges for anaerobic biodegradation based on USEPA guidance (1998). Based on this information, measured pH values are optimal in all deeper aquifer monitoring wells except MW-12D. Dissolved oxygen values were favorable in all deeper aquifer monitoring wells except MW-14D. On the other hand, ORP values measured in April 2019 are unfavorable in all deeper aquifer monitoring wells. The elevated ORP levels observed across the deeper aquifer zone may inhibit natural degradation of chlorinated VOCs.

Analysis	Minimum	Maximum	Average	Optimal Range for Anaerobic Biodegradation Processes*
pH (S.U.)	6.21	9.28	7.04	5 < pH < 9 - Optimal range for reductive pathway 5 > pH > 9 - Outside optimal range for reductive pathway
Dissolved Oxygen (mg/L)	0.96	7.30	3.32	<0.5 mg/L - Tolerated, suppresses the reductive pathway at higher concentrations >5 mg/L - Not tolerated; however, VC may be oxidized aerobically
ORP (mV)	68.8	208.2	157.8	<50 millivolts (mV) - Reductive pathway possible <-100mV - Reductive pathway likely

* - from the *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998).

ND - not detected

Data Trends

As with the shallow aquifer zone, the historical VOC results (Appendix D) and trend plots (Appendix E) for deeper groundwater show that the VOC concentrations in many wells have decreased with time from their highest values. For instance, PCE concentrations in MW-12D have decreased from a maximum of 451 µg/L detected in April 2010 to a low concentration of 12 µg/L in May 2011. Since then, PCE

concentrations have fluctuated but with an overall increasing trend, including the April 2019 data (92.1 µg/L). PCE concentrations in MW-13D have decreased from a maximum of 292 µg/L in April 2010 and have been relatively steady at less than 100 µg/L since May 2011, until a recent increase to 298 µg/L in October 2016. Since then, the PCE concentration in MW-13D has been decreasing, with a current concentration of 170 µg/L. The periodic increases in PCE in the deeper, down-gradient monitoring wells (e.g., MW-12D and MW-13D) may be a lagging response to increases observed in shallow monitoring wells near source areas in previous monitoring events.

Some of the deep monitoring wells on-site have exhibited more varied PCE concentrations. For instance, the PCE concentration in MW-3D has decreased from a maximum of 764 µg/L detected in April 2010 to values between approximately 200 µg/L and 432 µg/L from March 2014 to October 2018. The current concentration is 296 µg/L. PCE concentrations in MW-21D have decreased from 283 µg/L in March 2014 to 72.9 µg/L in October 2017. The concentration then increased to 357 µg/L in October 2018 before decreasing to 38.7 µg/L during the April 2019 sampling event. The variability in concentrations detected in MW-3D and MW-21D is likely related to sporadic releases of residual source material in the vicinity of the former PCE degreasers and former PCE UST, which are upgradient of these wells.

After the initial sampling of down-gradient well MW-14D, concentrations have remained fairly consistent throughout the monitoring period, between 53.1 µg/L and 92.0 µg/L. The current concentration is 80.6 µg/L. Other down-gradient monitoring wells, such as MW-22D, MW-25D, MW-26D, MW-30D, and MW-32DR, PCE concentrations have remained fairly consistent since the wells were installed. However, many wells (e.g., MW-25D, MW-26D, MW-30D, MW-31D, and MW-32DR) exhibit a generally increasing trend and for some of these wells (e.g., MW-25D, MW-30D, and MW-31D), the PCE concentration detected in April 2019 was the highest value in each well's monitoring history.

VOC concentrations in some deeper aquifer wells exhibit trends that correspond to water level fluctuations, such as with MW-13D (Appendix E). Other wells, such as MW-14D and MW-21D, show no clear trend related to groundwater elevation or, in the case of off-Site down-gradient well MW-22D, trend opposite groundwater elevations (i.e., concentrations decrease when water levels increase) in many instances. It is unclear if the reduction in flow during periods of lower water levels simply leads to less dilution (i.e., higher concentrations in water) or if PCE trends are the result of lag-time in transport to the wells further down-gradient.

4.3 Investigation Derived Waste

One drum of purge and decontamination water was generated as IDW during the semi-annual sampling activities and this is documented on the IDW management form in Appendix B. One composite IDW water sample was collected from the drum for analysis of VOCs by USEPA Method 8260B, SVOCs by USEPA Method 8270D, and metals by USEPA Methods 6010C and 7470B. IDW sample results were screened against maximum concentration for the Toxicity Characteristic listed in Code of Federal Regulations (40CFR§261.24). The results are summarized in Table 4. These results were used to generate waste

profiles and identify appropriate disposal options for the IDW with a Delavan-approved disposal facility. Delavan Spray Technologies Site personnel are managing the disposal of IDW generated during the semi-annual monitoring event.

4.4 Quality Assurance / Quality Control

The analytical data (Appendix C) associated with the semi-annual sampling were validated in accordance with the procedures outlined in the RI Work Plan (H&H, 2013). Quality assurance / quality control (QA/QC) sample results are presented in Table 5 and data qualifiers added to the analytical data as a result of the validation process are defined in the analytical data tables (Tables 3, 4 and 5). The data assessment reports (DARs; Appendix C) explain data qualifiers added to the sample results as a result of the validation process.

With the exception of non-detected results of benzoic acid associated with preparatory batch S6F153 for the IDW sample, the QC excursions encountered during the validation of this data set did not result in the rejection or qualification of any data. Therefore, the data associated with this report should be considered compliant and adequate for its intended use.

Per the work plan, QA/QC samples collected include field duplicate samples, trip blank samples, and matrix spike/matrix spike duplicate (MS/MSD) samples. The results of these samples are discussed in the following sections. All duplicate, MS/MSD, and trip blank samples were analyzed by Accutest Laboratories located in Orlando, Florida.

Field Duplicates

Duplicate samples, designated with an “-A” suffix, were collected at the frequency of one per ten primary samples for groundwater samples. The results of the primary and field duplicate groundwater samples are provided in Table 5. During the validation process, no qualifiers were added to the data as a result of the relative percent difference (RPD) between the primary and field duplicate samples.

Trip Blanks

Trip blank samples, designated with a “-C” suffix, were submitted daily for coolers containing an aqueous sample for the analysis of VOCs. The results of the trip blank samples are provided in Table 5. No flags were added to primary samples in Table 3 based on the trip blank analyses.

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

MS/MSD samples were collected at a frequency of one per twenty primary samples and are included in the analytical data packages provided in Appendix C; however, these results were not tabulated as the information only pertains to the primary sample with which the MS/MSD is associated.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are submitted based on the evaluation of the spring 2019 semi-annual monitoring results and a limited comparison to previous sampling results:

- Shallow water levels were up to 2.9 feet higher than those collected during the fall 2018 groundwater monitoring event (October 2018) and 0.6 feet to 1.7 feet higher than those measured during the spring 2018 groundwater monitoring event (May 2018). In the deep aquifer, groundwater elevations in April 2019 are up to 1.4 feet higher than those measured during the fall 2018 groundwater monitoring event (October 2018) and up to 1.1 feet higher than those collected during the spring 2018 groundwater monitoring event (May 2018). The shape of the potentiometric surfaces and groundwater flow patterns in both the shallow and deeper aquifer zones are similar to those observed in the fall 2018 and spring 2018 monitoring events and previous investigations.
- Concentrations of VOCs in the main plume in the shallow aquifer appear to be delineated on-site and bounded by non-detect values of PCE in off-site wells MW-27 and MW-28. There were no VOCs detected above their MCL in off-site monitoring wells screened in the shallow aquifer unit.
- With the exception of PCE, VOCs are delineated in deeper aquifer groundwater. PCE is the only VOC detected above its MCL off-site in deeper aquifer groundwater. As illustrated on Figure 9, PCE occurs in groundwater at similar concentrations above the MCL to the south / southwest of the site at monitoring well locations MW-22D, MW-25D, MW-30D, and MW-31D, and at slightly lower concentrations at MW-14D, MW-26D, and MW-32DR. The occurrence of PCE at these well locations is consistent with the inferred groundwater flow direction. The investigation work completed to date indicates that the PCE plume is migrating south / southwest of the existing well network and additional delineation will be required. The *Limestone Aquifer Assessment Work Plan* was submitted to SCDHEC on October 13, 2017 to address this additional delineation. Revisions to the work plan have been discussed with SCDHEC and a revised work plan was submitted in August 2018. UTC and AECOM are currently in the process of securing the off-site access agreements needed to implement the work.
- Detected concentrations of PCE in groundwater samples from the following monitoring wells were higher than those detected in the fall 2018 monitoring event:
 - o MW-3 (downgradient of the Facility building, former PCE UST, and former PCE Secondary Containment Area);
 - o MW-12D and MW-13D (along the western property boundary);
 - o MW-14D (downgradient and across the highway from the Facility building)
 - o MW-19 (in the vicinity of the northern former PCE degreaser);
 - o MW-20 (in the vicinity of the southern former PCE degreaser);

- o MW-25D, MW-30D, and MW-31D (located off-Site on the forested property south/southwest of the Site).

Some of these increases (e.g., MW-12D, MW-13D, MW-14D, MW-25D, MW-30D, and MW-31D) may be a lagging response/migration of concentrations after recent increases at the hot spot at MW-19.

- PCE concentrations decreased compared to the fall 2018 monitoring event in groundwater samples from monitoring wells MW-3D, MW-5, MW-9, MW-21, MW-21D, MW-22D, MW-24, and MW-32DR. For some of these wells (i.e., MW-22D), this may be as a result of normal seasonal fluctuation that has been observed in the data. However, others, such as MW-5 and MW-9, have decreased from historic high concentrations and appear to be on a stable or decreasing trend.
- The detected concentrations of PCE degradations products (i.e., TCE and cis-1,2-DCE) were similar to those detected during the fall 2018 semi-annual groundwater monitoring event, except in a few wells. Concentrations of TCE decreased in MW-1, MW-8, MW-9, and MW-22D. Cis-1,2-DCE concentrations decreased in MW-1, MW-9 MW-10 MW-22D and MW-24,
- VC has not been detected in any Site monitoring wells since October 2015 and was not detected in any monitoring wells during the spring 2018 groundwater monitoring event.

Based on the data collected and reviewed since the RI, water levels and groundwater VOC concentrations fluctuate over time in some areas of the Site. Some wells, including MW-13D, and MW-20, exhibit trends in PCE concentration that track with water level fluctuations. Other wells, such as MW-3D, MW-9, MW-14D and MW-21D, exhibit mixed behavior or no trend with regard to VOC and water level trends. The cause for the observed trends is not completely clear and is complicated by the residual VOC mass that has been documented to be present in hot-spots beneath the building footprint (i.e., in the vicinity of the Former PCE Degreasers). Delavan and AECOM recently completed a *Focused Feasibility Study Report* (AECOM, June 2017) to screen remedial alternatives to treat the residual source areas beneath the building. While AECOM and Delavan acknowledge that is premature to complete a feasibility study for the entire Site before the PCE plume is completely delineated, the Focused Feasibility Study is designed to provide the framework to begin addressing residual source areas while the delineation is being completed. Delavan and AECOM submitted a work plan for high resolution site characterization using MIP/HPT in February 2019. Data gained from the MIP/HPT investigation will be used to design a pilot study to test a remedy for the residual source areas beneath the Facility building.

Data generated from prior sampling events and investigations conducted in between 2014 and 2017 revealed data gaps in the delineation of the deeper limestone aquifer groundwater plumes associated with the Site. The *Limestone Aquifer Assessment Work Plan* was submitted to SCDHEC in August 27, 2018 to address these data gaps and assess deeper limestone aquifer groundwater south/southwest of the existing groundwater monitoring network. The work plan was approved in correspondence from SCDHEC dated September 20, 2018. Delavan and AECOM are currently working to obtain the off-site access agreements necessary to complete the work. An updated implementation schedule will be submitted to SCDHEC once off-site access has been secured.

In accordance with the monitoring requirement of the VCC, the next semi-annual sampling event is scheduled to occur in October 2019. Sampling will be conducted in accordance with the procedures described in the *RI Work Plan* (H&H, 2013) and the sampling plan presented in the *Fall 2018 Semi-Annual Groundwater Monitoring Report* (AECOM, January 2019).

6.0 REFERENCES

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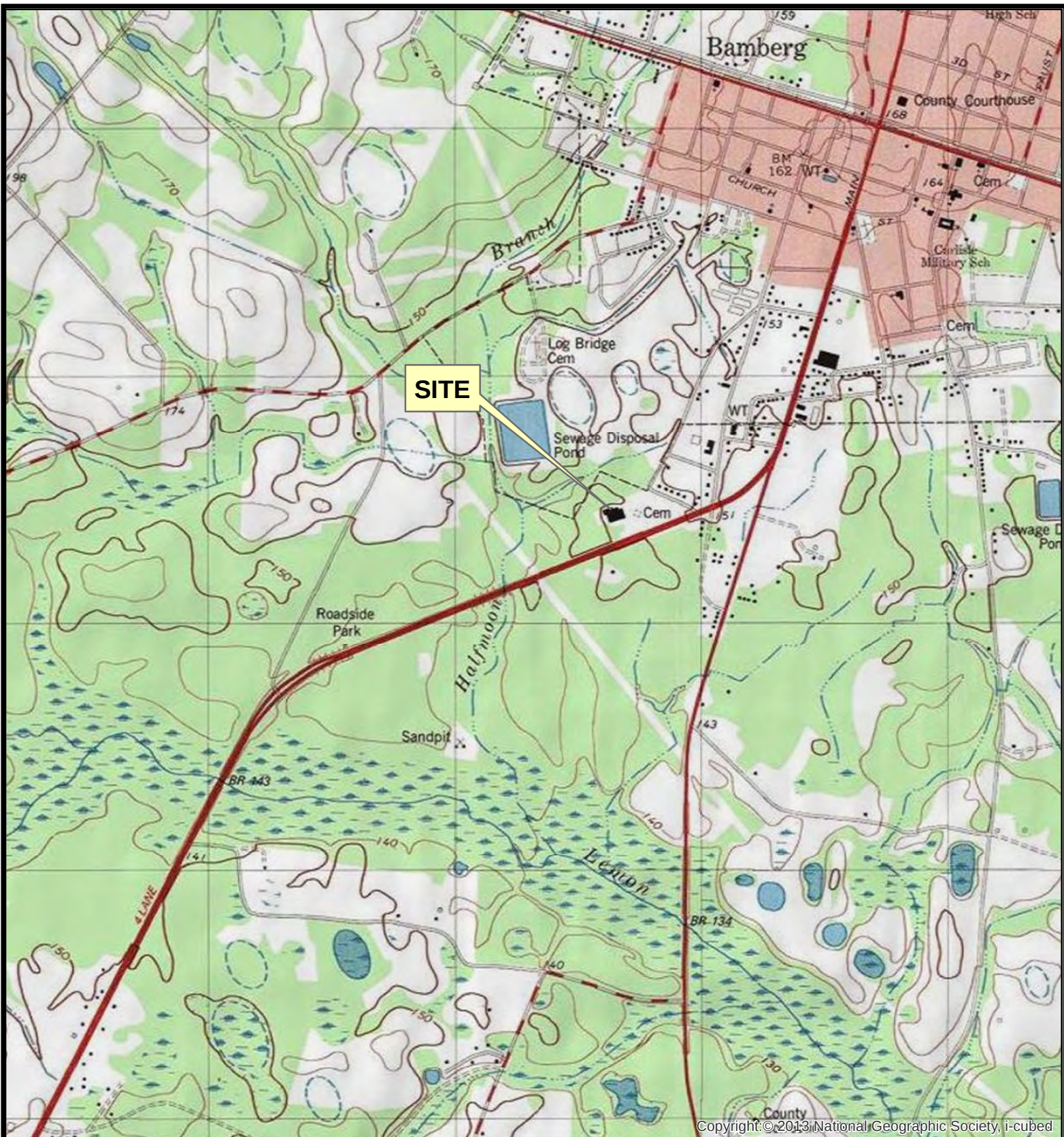
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FIGURES



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0 500 1,000 2,000 3,000 4,000
Feet

U.S.G.S. QUADRANGLE MAP
BAMBERG, SC 1979 (PHOTO REVISED 1987)

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

AECOM

10 Patewood Drive, Building 6, Suite 500
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Delavan Spray Technologies Site
Bamberg, South Carolina

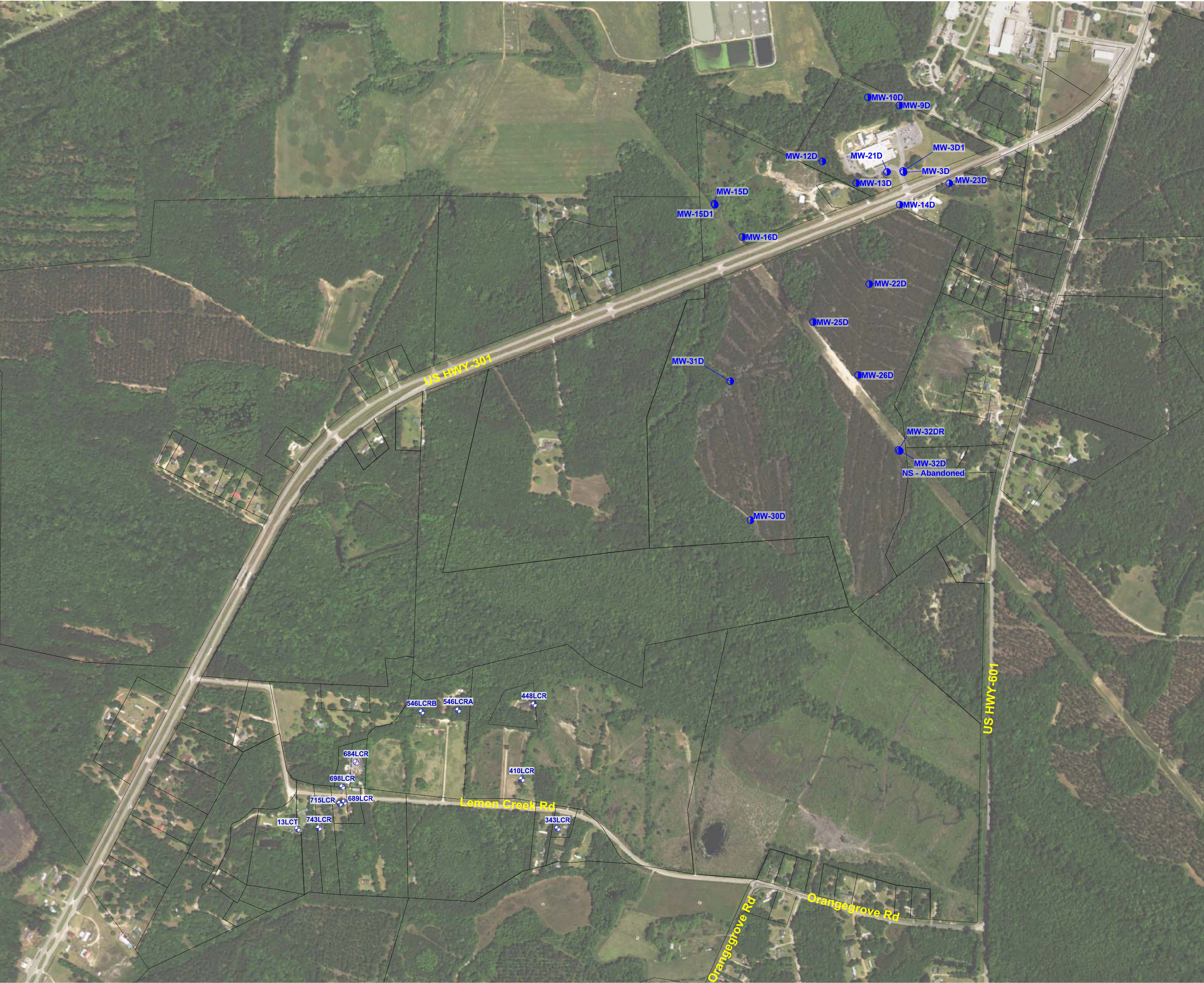
Site Location Map

Project No.
60601883

Prepared by
K. Clark

Date
June 2019

Figure 1



LEGEND

689LCR

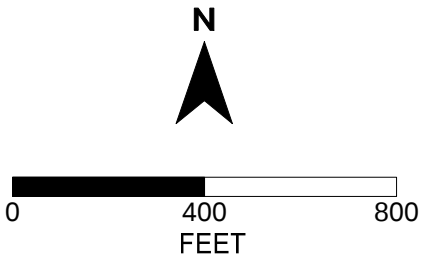
Well ID

Residential Well Sample Location

Deep Monitoring Well

Property Boundary

Notes:
µg/L - micrograms per liter
PCE - Tetrachloroethene
1) Residential well location 698 LCR was not sampled in April 2019 because the pump is not working at this location.



AECOM

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Delavan Spray Technologies Site
Bamberg, South Carolina

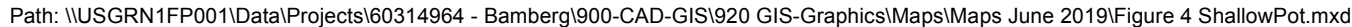
**Residential Well Sample
Location Map**

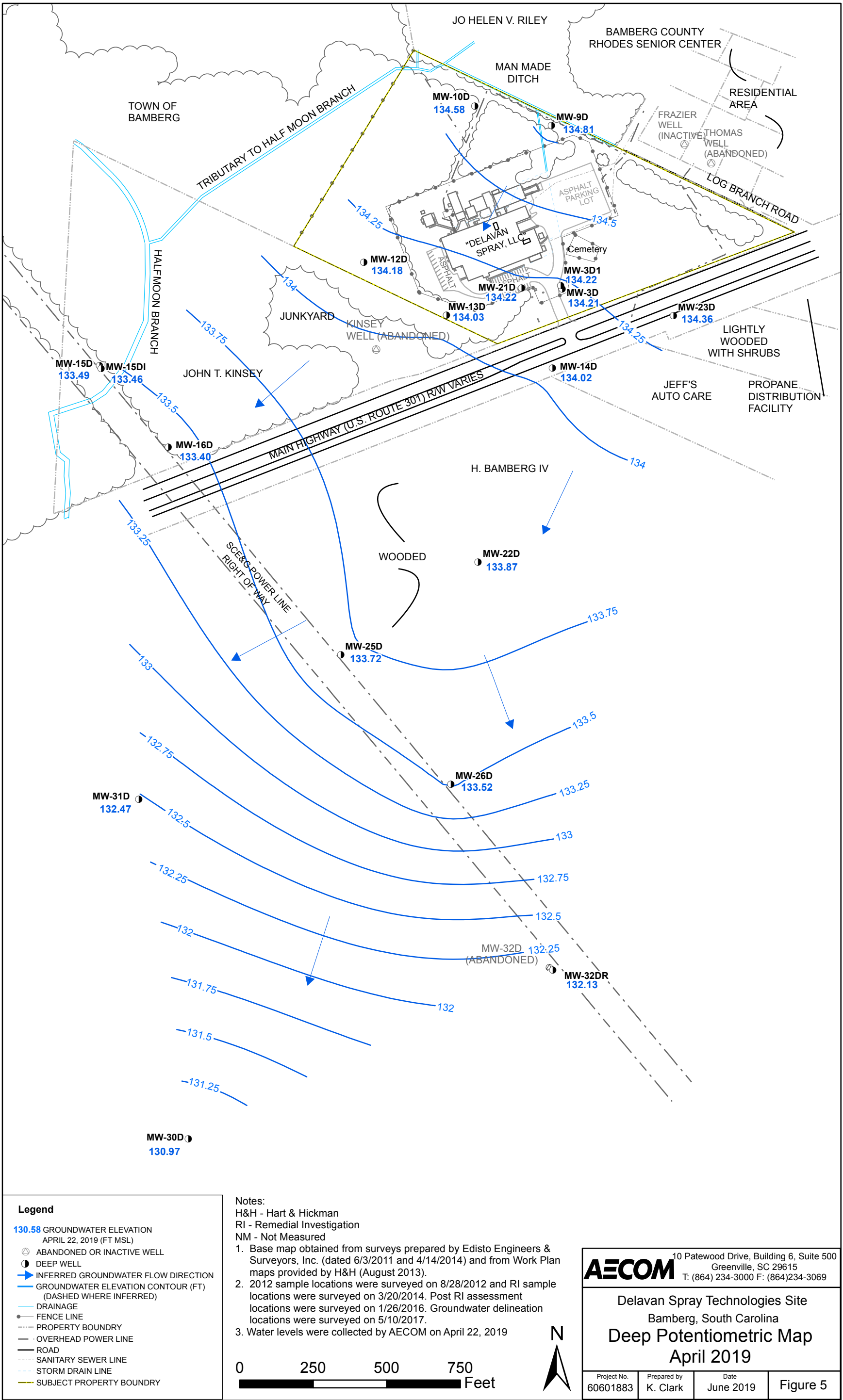
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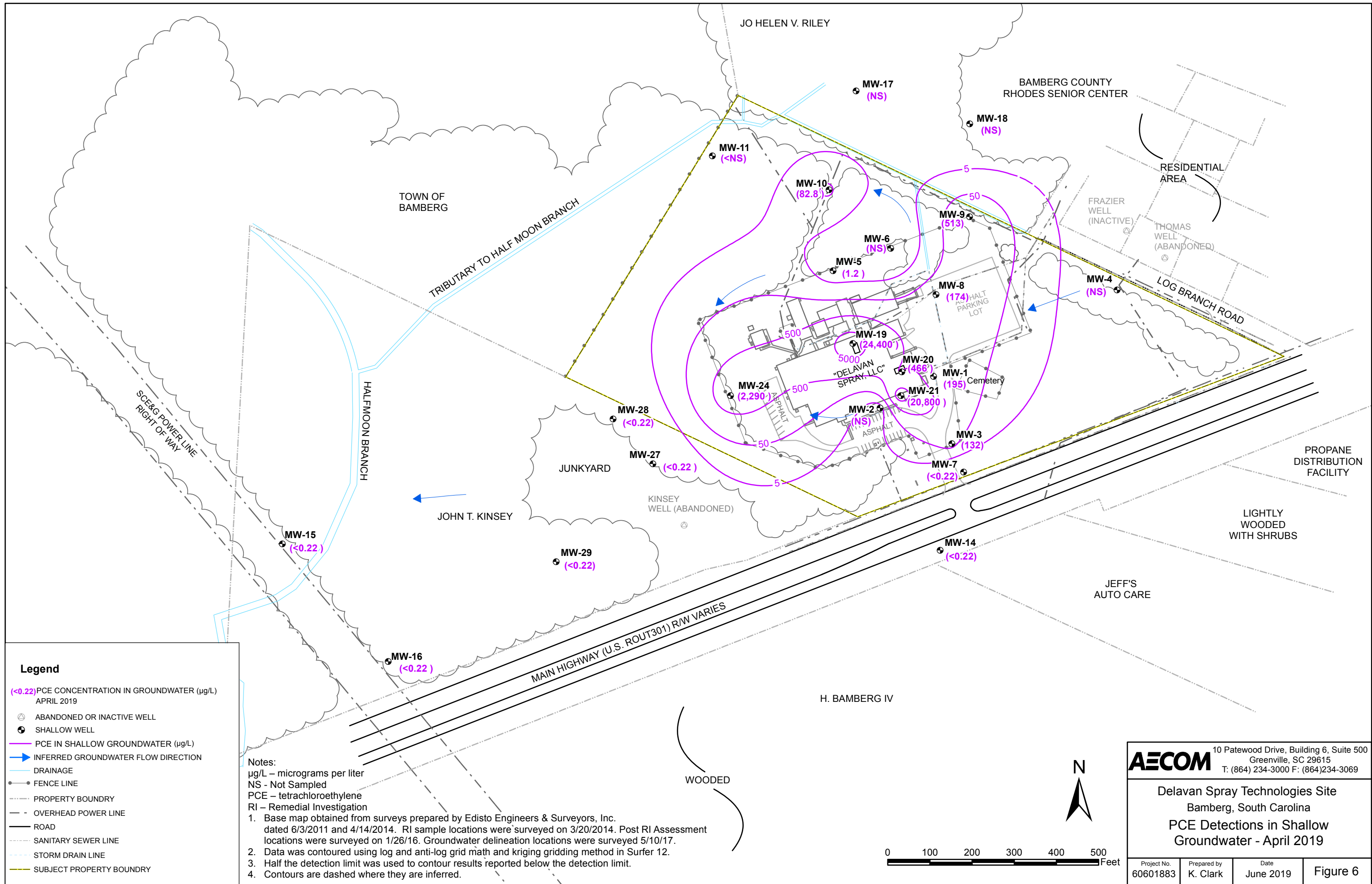
Prepared by
L. Alexander

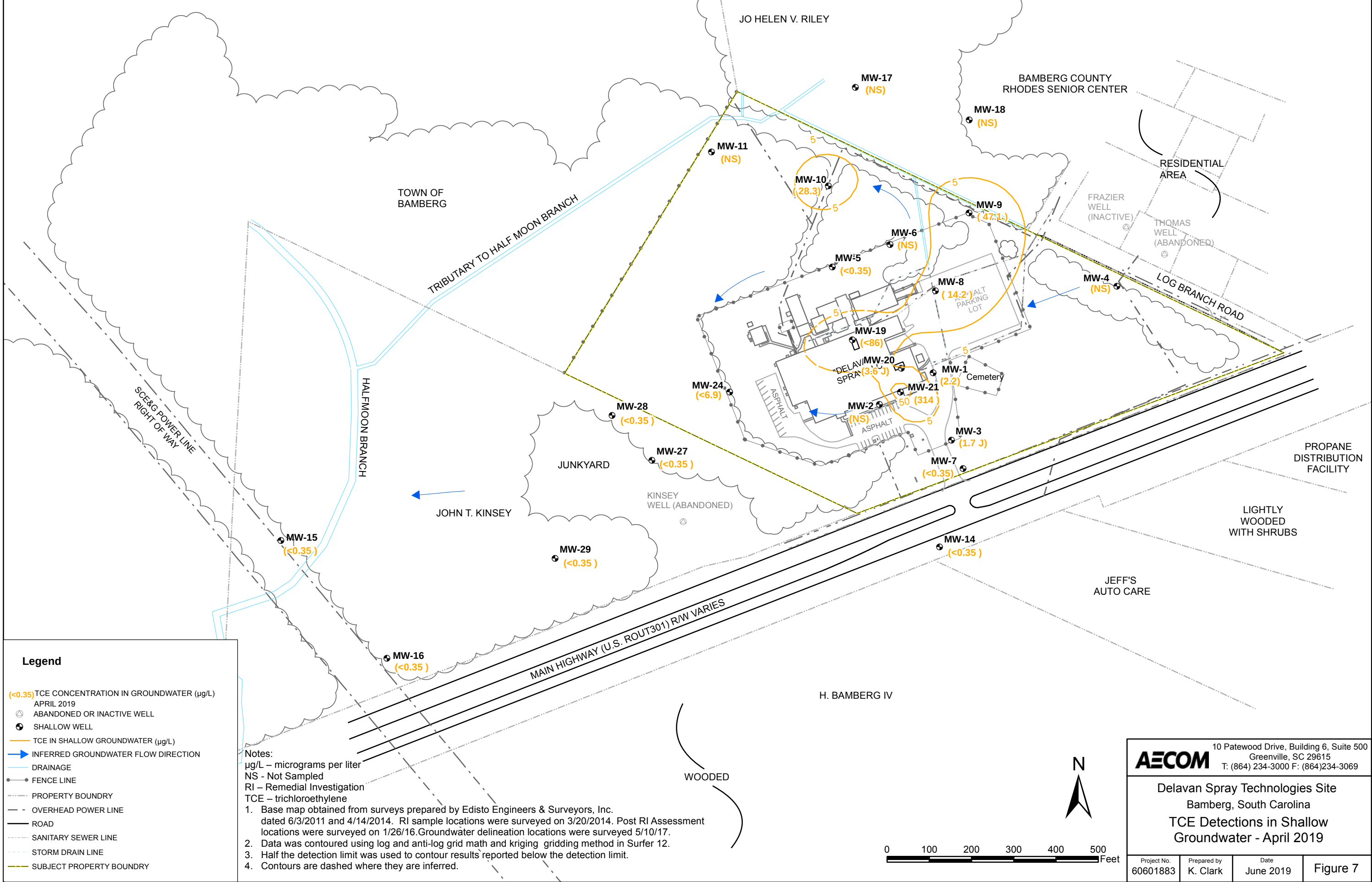
Date
June 2019

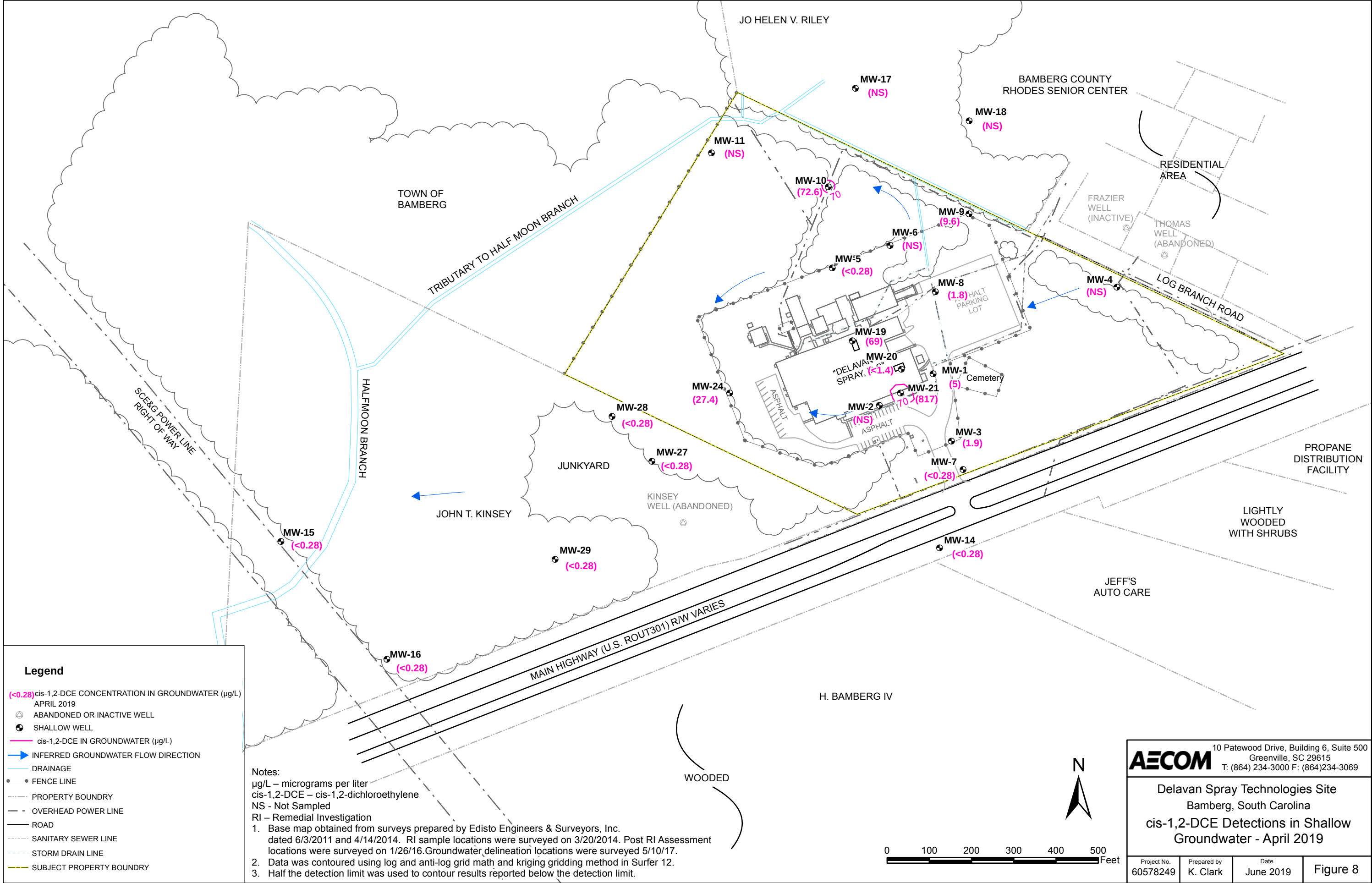
Figure 3

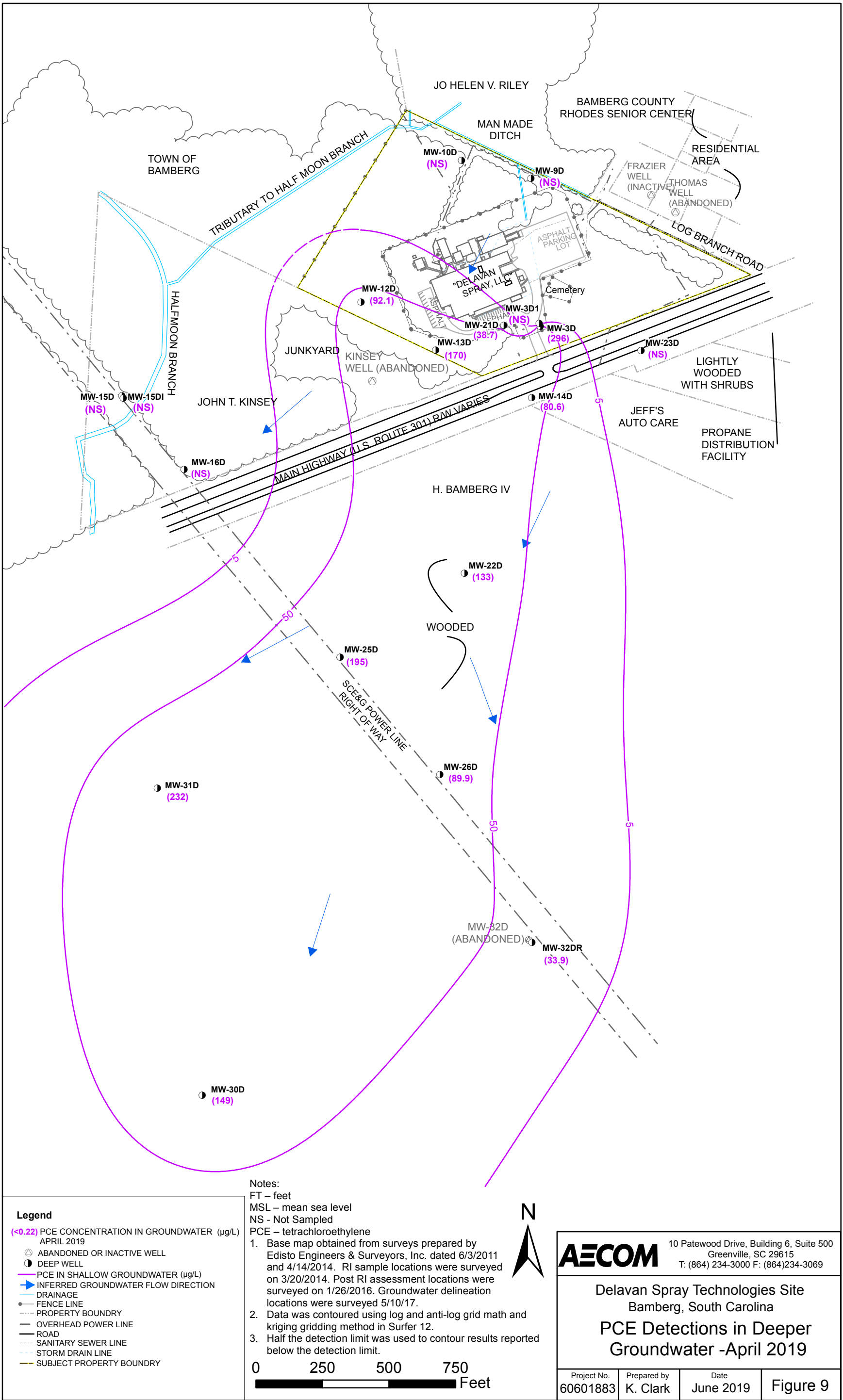


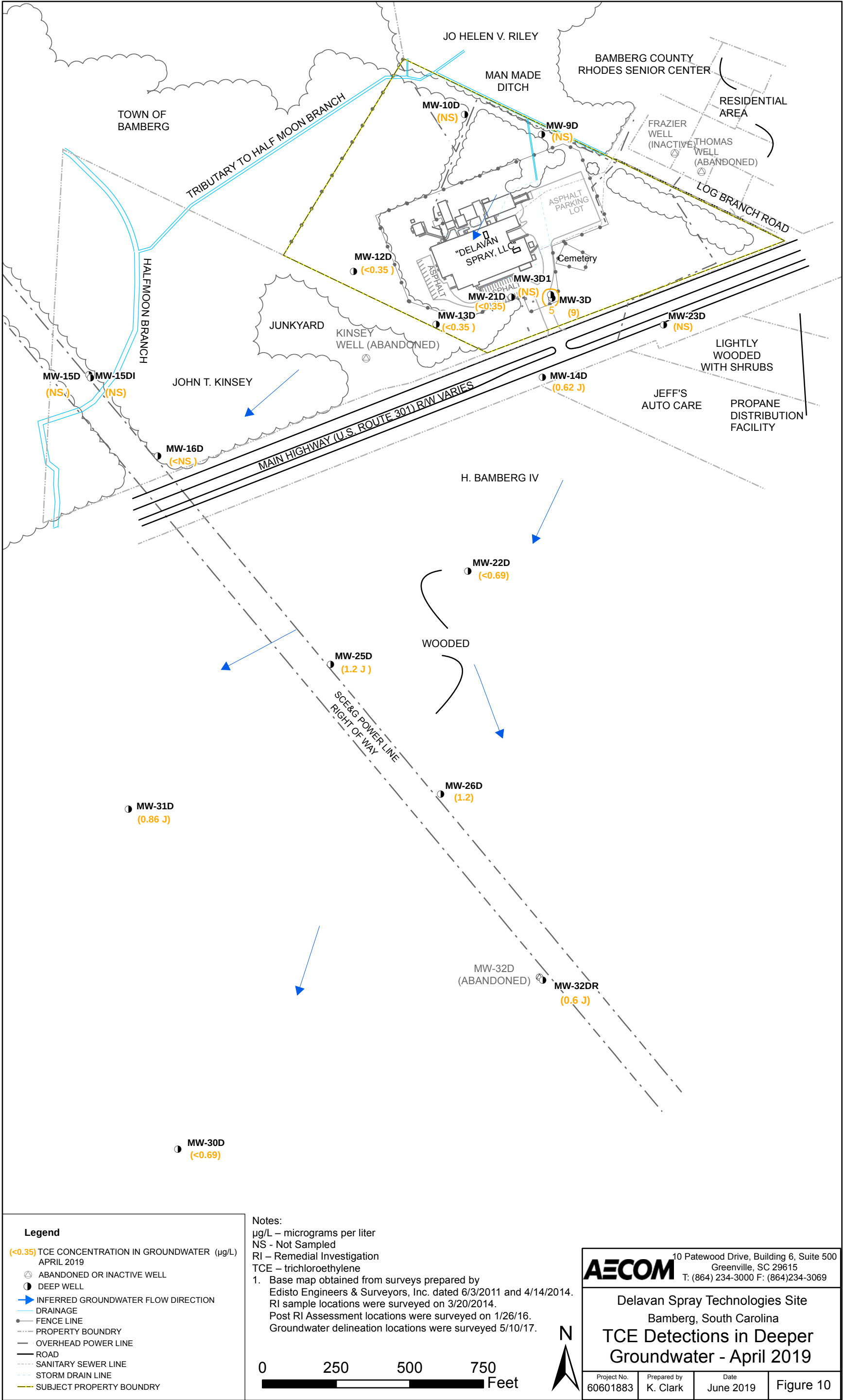


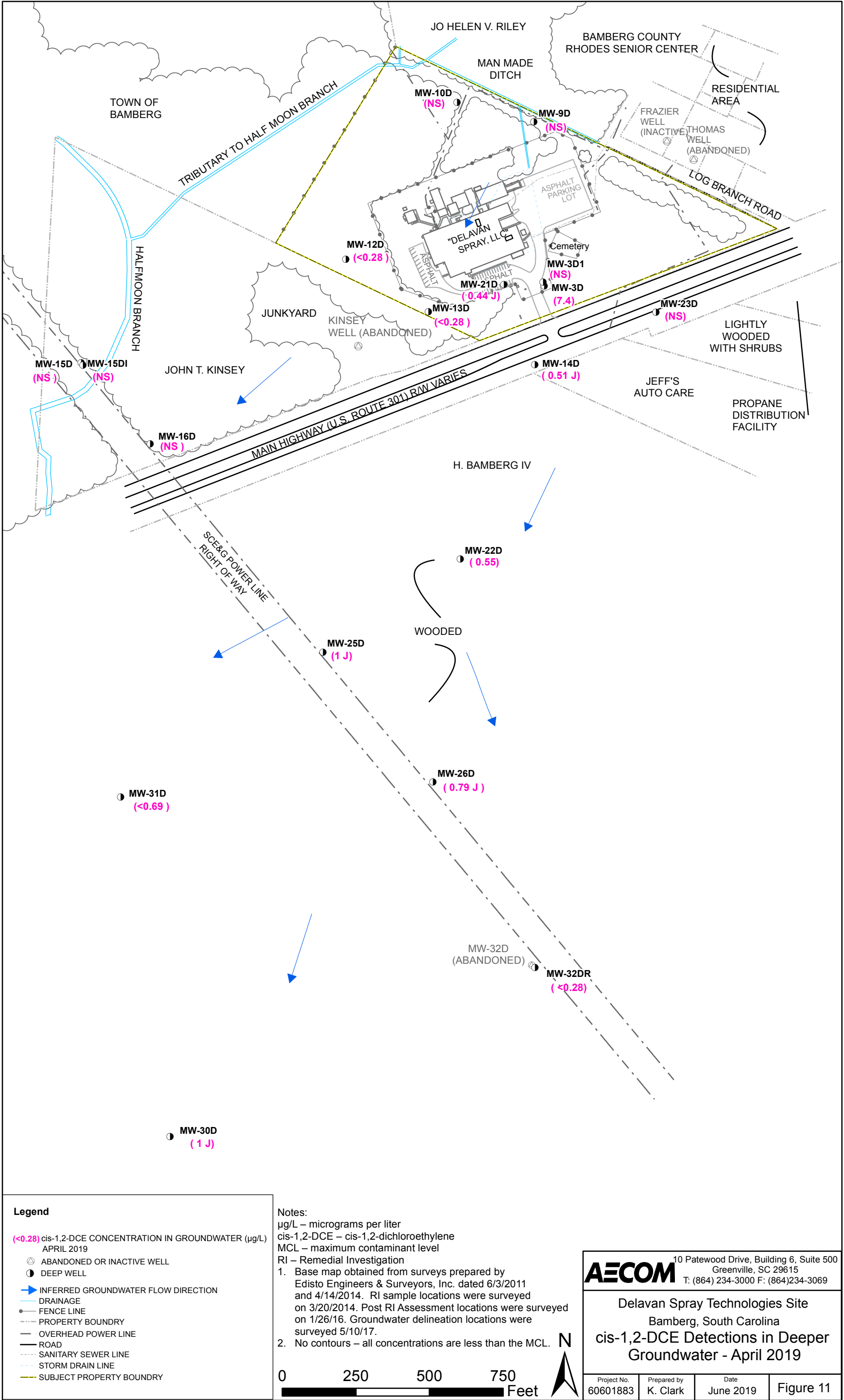












TABLES

Table 1
Groundwater Levels and Elevations
Delavan Spray Technologies Site
Bamberg, South Carolina

Well Number	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Aquifer Designation	Ground Surface Elevation	Top of Casing Elevation	6/5/2003		7/9/2003		12/31/2003		1/16/2004		3/14/2005		6/1/2005		9/20/2005	
							Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	Shallow	147.56	147.19	9.70	137.49	8.42	138.77	12.88	134.31	13.02	134.17	12.54	134.65	12.31	134.88	12.66	134.53
MW-2	18	--	3-18	Shallow	147.81	147.63	5.81	141.82	4.76	142.87	12.52	135.11	12.73	134.90	11.95	135.68	10.56	137.07	12.37	135.26
MW-3	18	--	3-18	Shallow	148.34	148.11	11.41	136.70	9.20	138.91	14.11	134.00	14.11	134.00	13.54	134.57	13.86	134.25	13.94	134.17
MW-3D	49	24	44-49	Deeper Limestone	148.28	148.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3D1	85	65	75-85	Deep Sandstone	148.12	147.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-4	14	--	4-14	Shallow	147.30	147.03	4.11	142.92	3.59	143.44	10.38	136.65	10.63	136.40	9.24	137.79	10.23	136.80	11.44	135.59
MW-5	14	--	4-14	Shallow	145.34	145.46	4.72	140.74	3.68	141.78	10.87	134.59	10.81	134.65	8.74	136.72	9.77	135.69	10.51	134.95
MW-6	14	--	4-14	Shallow	143.45	143.22	2.40	140.82	2.30	140.92	8.09	135.13	7.29	135.93	6.44	136.78	6.38	136.84	8.24	134.98
MW-7	20	--	5-20	Shallow	149.25	149.03	NI	NI	NI	NI	14.88	134.15	14.93	134.10	13.97	135.06	14.45	134.58	14.52	134.51
MW-8	20	--	5-20	Shallow	145.95	145.66	NI	NI	NI	NI	12.06	133.60	12.17	133.49	11.97	133.69	12.14	133.52	13.07	132.59
MW-9	20	--	5-20	Shallow	144.11	143.89	NI	NI	NI	NI	9.82	134.07	9.55	134.34	8.45	135.44	7.61	136.28	10.57	133.32
MW-9D	49	24	44-49	Deeper Limestone	144.80	144.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-10	18	--	3-18	Shallow	142.56	142.19	NI	NI	NI	NI	7.48	134.71	7.52	134.67	5.19	137.00	6.02	136.17	7.51	134.68
MW-10D	48	30	43-48	Deeper Limestone	142.08	141.79	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-11	18	--	3-18	Shallow	143.77	143.16	NI	NI	NI	NI	8.00	135.16	8.12	135.04	7.48	135.68	7.87	135.29	8.90	134.26
MW-12D	50	30	40-50	Deeper Limestone	147.86	147.65	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-13D	50	30	40-50	Deeper Limestone	146.41	146.23	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-14	20	--	5-20	Shallow	147.05	146.90	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-14D	50	29	40-50	Deeper Limestone	147.11	146.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15	19	--	4-19	Shallow	136.13	135.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D	45	30	35-45	Deeper Limestone	135.93	135.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D1	85	65	75-85	Deep Sandstone	135.94	135.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16	19	--	4-19	Shallow	138.74	138.30	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16D	45	29	35-45	Deeper Limestone	138.70	138.38	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-17	28.4	--	13-28	Shallow	142.07	141.66	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-18	26.4	--	11-26	Shallow	145.68	145.41	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-19	20.15	--	5-20	Shallow	148.47	148.22	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-20	15.15	--	5-15	Shallow	148.50	148.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-21	34.4	--	19-34	Shallow	148.43	147.97	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-21D	53.4	31.5	43-53	Deeper Limestone	147.28	146.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-22D	48.4	36	38-48	Deeper Limestone	146.42	145.96	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-23D	50.4	34	40-50	Deeper Limestone	148.48	148.26	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-24	21	--	6-21	Shallow	148.52	147.85	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-25D	62	--	52-62	Deeper Limestone	139.30	139.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-26D	48	--	38-48	Deeper Limestone	143.83	143.64	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-27	29	--	19 - 29	Shallow	145.93	145.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-28	29	--	19 - 29	Shallow	146.35	146.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-29	29	--	19 - 29	Shallow	141.03	140.55	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-30D	60	--	50 - 60	Deeper Limestone	135.90	136.01	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-31D	60	--	50 - 60	Deeper Limestone	141.39	141.39	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32D	60	--	50 - 60	Deeper Limestone	139.14	138.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32DR	60	--	50 - 60	Deeper Limestone	139.20	138.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 1
Groundwater Levels and Elevations
Delavan Spray Technologies Site
Bamberg, South Carolina

Well Number	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Aquifer Designation	Ground Surface Elevation	Top of Casing Elevation	12/12/2005		3/28/2006		6/26/2006		10/6/2006		1/12/2007		1/8/2008		11/4/2009	
							Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	Shallow	147.56	147.19	13.41	133.78	11.97	135.22	12.16	135.03	13.67	133.52	12.06	135.13	13.50	133.69	14.70	132.49
MW-2	18	--	3-18	Shallow	147.81	147.63	12.99	134.64	10.59	137.04	10.44	137.19	13.13	134.50	10.63	137.00	11.63	136.00	14.15	133.48
MW-3	18	--	3-18	Shallow	148.34	148.11	14.58	133.53	13.49	134.62	13.67	134.44	14.15	133.96	13.24	134.87	13.62	134.49	15.84	132.27
MW-3D	49	24	44-49	Deeper Limestone	148.28	148.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	16.10	132.02	17.30	130.82
MW-3D1	85	65	75-85	Deep Sandstone	148.12	147.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	17.11	130.82
MW-4	14	--	4-14	Shallow	147.30	147.03	11.81	135.22	7.53	139.50	9.26	137.77	11.82	135.21	7.79	139.24	9.53	137.50	13.52	133.51
MW-5	14	--	4-14	Shallow	145.34	145.46	11.30	134.16	6.74	138.72	8.74	136.72	11.57	133.89	7.33	138.13	9.09	136.37	12.70	132.76
MW-6	14	--	4-14	Shallow	143.45	143.22	8.29	134.93	4.17	139.05	6.30	136.92	9.46	133.76	4.90	138.32	6.10	137.12	10.09	133.13
MW-7	20	--	5-20	Shallow	149.25	149.03	15.11	133.92	13.91	135.12	14.22	134.81	14.99	134.04	13.23	135.80	14.20	134.83	15.93	133.10
MW-8	20	--	5-20	Shallow	145.95	145.66	12.81	132.85	11.17	134.49	12.32	133.34	13.67	131.99	11.62	134.04	12.85	132.81	14.35	131.31
MW-9	20	--	5-20	Shallow	144.11	143.89	9.33	134.56	6.91	136.98	8.98	134.91	11.60	132.29	7.41	136.48	8.17	135.72	11.54	132.35
MW-9D	49	24	44-49	Deeper Limestone	144.48	144.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	11.82	132.38	12.89	131.31
MW-10	18	--	3-18	Shallow	142.56	142.19	7.45	134.74	3.49	138.70	5.82	136.37	8.65	133.54	4.12	138.07	5.66	136.53	9.74	132.45
MW-10D	48	30	43-48	Deeper Limestone	142.08	141.79	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.45	132.34	10.68	131.11
MW-11	18	--	3-18	Shallow	143.77	143.16	8.63	134.53	6.84	136.32	8.01	135.15	9.26	133.90	7.30	135.86	7.89	135.27	10.01	133.15
MW-12D	50	30	40-50	Deeper Limestone	147.86	147.65	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	16.69	130.96
MW-13D	50	30	40-50	Deeper Limestone	146.41	146.23	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	15.55	130.68
MW-14	20	--	5-20	Shallow	147.05	146.90	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	15.03	131.87
MW-14D	50	29	40-50	Deeper Limestone	147.11	146.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	16.20	130.68
MW-15	18	--	4-19	Shallow	136.13	135.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D	45	30	35-45	Deeper Limestone	135.93	135.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D1	85	65	75-85	Deep Sandstone	135.94	135.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16	19	--	4-19	Shallow	138.74	138.30	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16D	45	29	35-45	Deeper Limestone	138.70	138.38	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-17	28.4	--	13-28	Shallow	142.07	141.66	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-18	26.4	--	11-26	Shallow	145.68	145.41	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-19	20.15	--	5-20	Shallow	148.47	148.22	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-20	15.15	--	5-15	Shallow	148.50	148.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-21	34.4	--	19-34	Shallow	148.43	147.97	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-21D	53.4	31.5	43-53	Deeper Limestone	147.28	146.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-22D	48.4	36	38-48	Deeper Limestone	146.42	145.96	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-23D	50.4	34	40-50	Deeper Limestone	148.48	148.26	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-24	21	--	6-21	Shallow	148.52	147.85	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-25D	62	--	52-62	Deeper Limestone	139.30	139.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-26D	48	--	38-48	Deeper Limestone	143.83	143.64	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-27	29	--	19 - 29	Shallow	145.93	145.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-28	29	--	19 - 29	Shallow	146.35	146.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-29	29	--	19 - 29	Shallow	141.03	140.55	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-30D	60	--	50 - 60	Deeper Limestone	135.90	136.01	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-31D	60	--	50 - 60	Deeper Limestone	141.39	141.39	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32D	60	--	50 - 60	Deeper Limestone	139.14	138.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32DR	60	--	50 - 60	Deeper Limestone	139.20	138.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 1
Groundwater Levels and Elevations
Delavan Spray Technologies Site
Bamberg, South Carolina

Well Number	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Aquifer Designation	Ground Surface Elevation	Top of Casing Elevation	4/29/2010		10/25/2010		12/15/2010		5/23/2011		11/8/2011		5/8/2012		3/20/2014	
							Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	Shallow	147.56	147.19	12.20	134.99	14.38	132.81	15.17	132.02	13.29	133.90	14.88	132.31	13.05	134.14	11.02	136.17
MW-2	18	--	3-18	Shallow	147.81	147.63	11.50	136.13	13.70	133.93	14.84	132.79	12.88	134.75	14.51	133.12	12.94	134.69	10.25	137.38
MW-3	18	--	3-18	Shallow	148.34	148.11	13.81	134.30	14.56	133.55	15.84	132.27	14.01	134.10	15.65	132.46	13.93	134.18	12.15	135.96
MW-3D	49	24	44-49	Deeper Limestone	148.28	148.12	15.03	133.09	17.39	130.73	17.36	130.76	16.75	131.37	17.45	130.67	16.22	131.90	13.74	134.38
MW-3D1	85	65	75-85	Deep Sandstone	148.12	147.93	14.86	133.07	17.32	130.61	17.19	130.74	16.55	131.38	17.29	130.64	16.05	131.88	13.52	134.41
MW-4	14	--	4-14	Shallow	147.30	147.03	8.95	138.08	12.73	134.30	13.49	133.54	11.37	135.66	Dry	NA	9.44	137.59	4.7	142.33
MW-5	14	--	4-14	Shallow	145.34	145.46	9.50	135.96	12.31	133.15	13.51	131.95	11.05	134.41	13.45	132.01	8.97	136.49	4.76	140.70
MW-6	14	--	4-14	Shallow	143.45	143.22	6.50	136.72	10.00	133.22	11.32	131.90	8.40	134.82	11.15	132.07	6.20	137.02	3.04	140.18
MW-7	20	--	5-20	Shallow	149.25	149.03	14.30	134.73	15.33	133.70	15.89	133.14	14.65	134.38	15.73	133.30	14.39	134.64	11.87	137.16
MW-8	20	--	5-20	Shallow	145.95	145.66	11.79	133.87	14.35	131.31	14.52	131.14	13.50	132.16	14.60	131.06	12.88	132.78	10.27	135.39
MW-9	20	--	5-20	Shallow	144.11	143.89	6.81	137.08	11.65	132.24	12.55	131.34	9.20	134.69	12.60	131.29	6.25	137.64	4.87	139.02
MW-9D	49	24	44-49	Deeper Limestone	144.48	144.20	10.58	133.62	12.99	131.21	12.98	131.22	12.26	131.94	13.12	131.08	11.78	132.42	9.15	135.05
MW-10	18	--	3-18	Shallow	142.56	142.19	6.14	136.05	9.73	132.46	10.66	131.53	7.98	134.21	10.57	131.62	5.88	136.31	2.63	139.56
MW-10D	48	30	43-48	Deeper Limestone	142.08	141.79	8.38	133.41	10.76	131.03	10.76	131.03	10.02	131.77	10.89	130.90	9.59	132.20	6.99	134.80
MW-11	18	--	3-18	Shallow	143.77	143.16	8.15	135.01	9.98	133.18	10.92	132.24	9.11	134.05	10.82	132.34	8.39	134.77	6.39	136.77
MW-12D	50	30	40-50	Deeper Limestone	147.86	147.65	14.62	133.03	16.92	130.73	16.87	130.78	16.18	131.47	16.99	130.66	15.69	131.96	13.28	134.37
MW-13D	50	30	40-50	Deeper Limestone	146.41	146.23	13.33	132.90	15.65	130.58	15.61	130.62	14.99	131.24	15.71	130.52	14.44	131.79	12.02	134.21
MW-14	20	--	5-20	Shallow	147.05	146.90	12.69	134.21	13.99	132.91	14.67	132.23	13.38	133.52	14.52	132.38	12.97	133.93	10.49	136.41
MW-14D	50	29	40-50	Deeper Limestone	147.11	146.88	14.01	132.87	16.34	130.54	16.26	130.62	15.69	131.19	16.37	130.51	15.09	131.79	12.71	134.17
MW-15	18	--	4-19	Shallow	136.13	135.73	NI	NI	NI	NI	NI	NI	5.44	130.29	6.68	129.05	3.77	131.96	1.71	134.02
MW-15D	45	30	35-45	Deeper Limestone	135.93	135.59	NI	NI	NI	NI	NI	NI	4.55	131.04	5.23	130.36	4.15	131.44	1.92	133.67
MW-15D1	85	65	75-85	Deep Sandstone	135.94	135.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.25	131.44	2.04	133.65
MW-16	19	--	4-19	Shallow	138.74	138.30	NI	NI	NI	NI	NI	NI	6.40	131.90	8.15	130.15	5.26	133.04	2.54	135.76
MW-16D	45	29	35-45	Deeper Limestone	138.70	138.38	NI	NI	NI	NI	NI	NI	7.49	130.89	8.30	130.08	7.05	131.33	4.79	133.59
MW-17	28.4	--	13-28	Shallow	142.07	141.66	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.90	139.76
MW-18	26.4	--	11-26	Shallow	145.68	145.41	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.07	136.34
MW-19	20.15	--	5-20	Shallow	148.47	148.22	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	11.35	136.87
MW-20	15.15	--	5-15	Shallow	148.50	148.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	11.11	137.08
MW-21	34.4	--	19-34	Shallow	148.43	147.97	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	11.42	136.55
MW-21D	53.4	31.5	43-53	Deeper Limestone	147.28	146.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	12.51	134.41
MW-22D	48.4	36	38-48	Deeper Limestone	146.42	145.96	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	11.96	134.00
MW-23D	50.4	34	40-50	Deeper Limestone	148.48	148.26	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	13.73	134.53
MW-24	21	--	6-21	Shallow	148.52	147.85	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-25D	62	--	52-62	Deeper Limestone	139.30	139.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-26D	48	--	38-48	Deeper Limestone	143.83	143.64	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-27	29	--	19 - 29	Shallow	145.93	145.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-28	29	--	19 - 29	Shallow	146.35	146.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-29	29	--	19 - 29	Shallow	141.03	140.55	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-30D	60	--	50 - 60	Deeper Limestone	135.90	136.01	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-31D	60	--	50 - 60	Deeper Limestone	141.39	141.39	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32D	60	--	50 - 60	Deeper Limestone	139.14	138.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-32DR	60	--	50 - 60	Deeper Limestone	139.20	138.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 1
Groundwater Levels and Elevations
Delavan Spray Technologies Site
Bamberg, South Carolina

Well Number	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Aquifer Designation	Ground Surface Elevation	Top of Casing Elevation	10/27/2014		4/20/2015		10/26/2015		4/11/2016		10/24/2016		4/12/2017		4/13/2017	
							Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	Shallow	147.56	147.19	13.53	133.66	10.81	136.38	10.51	136.68	11.40	135.79	11.05	136.14	12.38	134.81	NM	NM
MW-2	18	--	3-18	Shallow	147.81	147.63	13.63	134.00	9.64	137.99	8.61	139.02	10.43	137.20	10.11	137.52	12.04	135.59	NM	NM
MW-3	18	--	3-18	Shallow	148.34	148.11	14.16	133.95	12.62	135.49	12.73	135.38	13.19	134.92	13.08	135.03	13.94	134.17	NM	NM
MW-3D	49	24	44-49	Deeper Limestone	148.28	148.12	16.07	132.05	13.48	134.64	13.89	134.23	14.04	134.08	13.96	134.16	14.61	133.51	14.67	133.45
MW-3D1	85	65	75-85	Deep Sandstone	148.12	147.93	15.89	132.04	13.25	134.68	13.69	134.24	13.83	134.10	13.75	134.18	14.40	133.53	NM	NM
MW-4	14	--	4-14	Shallow	147.30	147.03	11.70	135.33	4.79	142.24	4.47	142.56	5.22	141.81	5.48	141.55	8.03	139.00	NM	NM
MW-5	14	--	4-14	Shallow	145.34	145.46	11.43	134.03	4.60	140.86	4.35	141.11	6.31	139.15	6.97	138.49	8.37	137.09	NM	NM
MW-6	14	--	4-14	Shallow	143.45	143.22	5.96	137.26	2.20	141.02	2.98	140.24	4.14	139.08	4.93	138.29	6.02	137.20	NM	NM
MW-7	20	--	5-20	Shallow	149.25	149.03	14.73	134.30	12.88	136.15	12.71	136.32	13.19	135.84	13.12	135.91	14.33	134.70	NM	NM
MW-8	20	--	5-20	Shallow	145.95	145.66	13.02	132.64	10.06	135.60	10.22	135.44	10.62	135.04	10.58	135.08	11.34	134.32	NM	NM
MW-9	20	--	5-20	Shallow	144.11	143.89	9.78	134.11	4.54	139.35	5.07	138.82	5.14	138.75	5.60	138.29	6.04	137.85	NM	NM
MW-9D	49	24	44-49	Deeper Limestone	144.48	144.20	11.64	132.56	8.93	135.27	9.34	134.86	9.99	134.21	9.43	134.77	10.03	134.17	NM	NM
MW-10	18	--	3-18	Shallow	142.56	142.19	8.50	133.69	2.47	139.72	2.61	139.58	3.52	138.67	4.06	138.13	5.15	137.04	NM	NM
MW-10D	48	30	43-48	Deeper Limestone	142.08	141.79	9.40	132.39	6.75	135.04	7.17	134.62	7.27	134.52	7.27	134.52	7.84	133.95	NM	NM
MW-11	18	--	3-18	Shallow	143.77	143.16	8.96	134.20	6.40	136.76	6.45	136.71	6.64	136.52	6.95	136.21	7.24	135.92	NM	NM
MW-12D	50	30	40-50	Deeper Limestone	147.86	147.65	15.55	132.10	13.02	134.63	13.42	134.23	13.58	134.07	13.54	134.11	14.10	133.55	14.15	133.50
MW-13D	50	30	40-50	Deeper Limestone	146.41	146.23	14.29	131.94	11.75	134.48	12.18	134.05	12.32	133.91	12.25	133.98	12.97	133.26	12.92	133.31
MW-14	20	--	5-20	Shallow	147.05	146.90	13.02	133.88	10.54	136.36	10.69	136.21	11.18	135.72	11.22	135.68	12.46	134.44	NM	NM
MW-14D	50	29	40-50	Deeper Limestone	147.11	146.88	14.99	131.89	12.43	134.45	12.87	134.01	13.04	133.84	12.93	133.95	13.57	133.31	13.63	133.25
MW-15	18	--	4-19	Shallow	136.13	135.73	4.49	131.24	2.09	133.64	3.00	132.73	2.69	133.04	3.14	132.59	2.95	132.78	NM	NM
MW-15D	45	30	35-45	Deeper Limestone	135.93	135.59	3.79	131.80	1.80	133.79	2.07	133.52	2.20	133.39	2.19	133.40	2.60	132.99	NM	NM
MW-15D1	85	65	75-85	Deep Sandstone	135.94	135.69	3.91	131.78	1.91	133.78	2.18	133.51	2.32	133.37	2.30	133.39	2.70	132.99	NM	NM
MW-16	19	--	4-19	Shallow	138.74	138.30	6.68	131.62	2.35	135.95	3.38	134.92	2.73	135.57	3.80	134.50	3.01	135.29	NM	NM
MW-16D	45	29	35-45	Deeper Limestone	138.70	138.38	6.76	131.62	4.54	133.84	4.95	133.43	5.08	133.30	5.04	133.34	5.51	132.87	5.54	132.84
MW-17	28.4	--	13-28	Shallow	142.07	141.66	6.93	134.73	1.91	139.75	2.65	139.01	2.79	138.87	2.96	138.70	3.06	138.60	NM	NM
MW-18	26.4	--	11-26	Shallow	145.68	145.41	12.48	132.93	9.23	136.18	9.75	135.66	9.86	135.55	9.96	135.45	10.57	134.84	NM	NM
MW-19	20.15	--	5-20	Shallow	148.47	148.22	14.42	133.80	10.90	137.32	10.02	138.20	11.42	136.80	11.30	136.92	12.98	135.24	NM	NM
MW-20	15.15	--	5-15	Shallow	148.50	148.19	14.30	133.89	10.55	137.64	9.59	138.60	11.25	136.94	10.57	137.62	12.81	135.38	NM	NM
MW-21	34.4	--	19-34	Shallow	148.43	147.97	14.59	133.38	11.23	136.74	11.38	136.59	12.68	135.29	12.48	135.49	13.45	134.52	NM	NM
MW-21D	53.4	31.5	43-53	Deeper Limestone	147.28	146.92	14.84	132.08	12.25	134.67	12.67	134.25	12.83	134.09	12.75	134.17	13.39	133.53	13.44	133.48
MW-22D	48.4	36	38-48	Deeper Limestone	146.42	145.96	14.19	131.77	11.68	134.28	12.11	133.85	12.27	133.69	12.18	133.78	12.81	133.15	12.87	133.09
MW-23D	50.4	34	40-50	Deeper Limestone	148.48	148.26	16.18	132.08	13.48	134.78	13.95	134.31	14.09	134.17	13.98	134.28	14.65	133.61	14.71	133.55
MW-24	21	--	6-21	Shallow	148.52	147.85	NI	NI	NI	NI	NI	NI	13.39	134.46	13.42	134.43	14.10	133.75	NM	NM
MW-25D	62	--	52-62	Deeper Limestone	139.30	139.21	NI	NI	NI	NI	NI	NI	5.66	133.55	5.58	133.63	6.16	133.05	6.21	133.00
MW-26D	48	--	38-48	Deeper Limestone	143.83	143.64	NI	NI	NI	NI	NI	NI	10.32	133.32	10.20	133.44	10.81	132.83	10.87	132.77
MW-27	29	--	19 - 29	Shallow	145.93	145.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.91	135.87	NM	NM
MW-28	29	--	19 - 29	Shallow	146.35	146.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	12.60	133.52	NM	NM
MW-29	29	--	19 - 29	Shallow	141.03	140.55	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	7.17	133.38	NM	NM
MW-30D	60	--	50 - 60	Deeper Limestone	135.90	136.01	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	5.35	130.66
MW-31D	60	--	50 - 60	Deeper Limestone	141.39	141.39	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.42	131.97
MW-32D	60	--	50 - 60	Deeper Limestone	139.14	138.92	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	7.49	131.43
MW-32DR	60	--	50 - 60	Deeper Limestone	139.20	138.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 1
Groundwater Levels and Elevations
Delavan Spray Technologies Site
Bamberg, South Carolina

Well Number	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Aquifer Designation	Ground Surface Elevation	Top of Casing Elevation	10/16/2017		5/7/2018		10/29/2018		4/22/2019	
							Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	Shallow	147.56	147.19	13.51	133.68	12.42	134.77	12.62	134.57	11.71	135.48
MW-2	18	--	3-18	Shallow	147.81	147.63	13.82	133.81	12.42	135.21	12.39	135.24	11.15	136.48
MW-3	18	--	3-18	Shallow	148.34	148.11	14.12	133.99	13.86	134.25	14.02	134.09	13.24	134.87
MW-3D	49	24	44-49	Deeper Limestone	148.28	148.12	16.16	131.96	14.93	133.19	15.25	132.87	13.91	134.21
MW-3D1	85	65	75-85	Deep Sandstone	148.12	147.93	15.98	131.95	14.74	133.19	15.05	132.88	13.71	134.22
MW-4	14	--	4-14	Shallow	147.30	147.03	11.49	135.54	8.57	138.46	9.53	137.50	7.07	139.96
MW-5	14	--	4-14	Shallow	145.34	145.46	12.10	133.36	8.90	136.56	10.32	135.14	7.55	137.91
MW-6	14	--	4-14	Shallow	143.45	143.22	10.02	133.20	6.69	136.53	7.89	135.33	5.03	138.19
MW-7	20	--	5-20	Shallow	149.25	149.03	14.57	134.46	14.07	134.96	14.34	134.69	13.29	135.74
MW-8	20	--	5-20	Shallow	145.95	145.66	13.16	132.50	11.68	133.98	12.05	133.61	10.81	134.85
MW-9	20	--	5-20	Shallow	144.11	143.89	10.11	133.78	6.89	137.00	7.33	136.56	5.32	138.57
MW-9D	49	24	44-49	Deeper Limestone	144.48	144.20	11.73	132.47	10.41	133.79	10.77	133.43	9.39	134.81
MW-10	18	--	3-18	Shallow	142.56	142.19	9.33	132.86	5.98	136.21	7.34	134.85	7.46	134.73
MW-10D	48	30	43-48	Deeper Limestone	142.08	141.79	9.50	132.29	8.22	133.57	8.52	133.27	7.21	134.58
MW-11	18	--	3-18	Shallow	143.77	143.16	9.63	133.53	7.79	135.37	8.39	134.77	7.13	136.03
MW-12D	50	30	40-50	Deeper Limestone	147.86	147.65	15.65	132.00	14.45	133.20	14.72	132.93	13.47	134.18
MW-13D	50	30	40-50	Deeper Limestone	146.41	146.23	14.38	131.85	13.20	133.03	13.48	132.75	12.20	134.03
MW-14	20	--	5-20	Shallow	147.05	146.90	13.24	133.66	12.44	134.46	12.47	134.43	11.27	135.63
MW-14D	50	29	40-50	Deeper Limestone	147.11	146.88	15.08	131.80	13.87	133.01	14.18	132.70	12.86	134.02
MW-15	18	--	4-19	Shallow	136.13	135.73	5.25	130.48	3.74	131.99	3.60	132.13	3.12	132.61
MW-15D	45	30	35-45	Deeper Limestone	135.93	135.59	3.85	131.74	2.95	132.64	3.02	132.57	2.10	133.49
MW-15D1	85	65	75-85	Deep Sandstone	135.94	135.69	3.96	131.73	3.06	132.63	3.14	132.55	2.23	133.46
MW-16	19	--	4-19	Shallow	138.74	138.30	7.02	131.28	4.14	134.16	4.45	133.85	3.11	135.19
MW-16D	45	29	35-45	Deeper Limestone	138.70	138.38	6.83	131.55	5.84	132.54	5.98	132.40	4.98	133.40
MW-17	28.4	--	13-28	Shallow	142.07	141.66	7.75	133.91	4.11	137.55	5.18	136.48	3.14	138.52
MW-18	26.4	--	11-26	Shallow	145.68	145.41	12.65	132.76	10.87	134.54	11.45	133.96	9.86	135.55
MW-19	20.15	--	5-20	Shallow	148.47	148.22	14.62	133.60	13.02	135.20	13.43	134.79	11.95	136.27
MW-20	15.15	--	5-15	Shallow	148.50	148.19	14.50	133.69	12.87	135.32	13.15	135.04	11.90	136.29
MW-21	34.4	--	19-34	Shallow	148.43	147.97	15.12	132.85	13.68	134.29	14.02	133.95	12.54	135.43
MW-21D	53.4	31.5	43-53	Deeper Limestone	147.28	146.92	14.93	131.99	13.71	133.21	14.02	132.90	12.70	134.22
MW-22D	48.4	36	38-48	Deeper Limestone	146.42	145.96	14.29	131.67	13.10	132.86	13.38	132.58	12.09	133.87
MW-23D	50.4	34	40-50	Deeper Limestone	148.48	148.26	16.28	131.98	14.96	133.30	15.33	132.93	13.90	134.36
MW-24	21	--	6-21	Shallow	148.52	147.85	15.69	132.16	14.46	133.39	14.74	133.11	13.45	134.40
MW-25D	62	--	52-62	Deeper Limestone	139.30	139.21	7.59	131.62	6.47	132.74	6.72	132.49	5.49	133.72
MW-26D	48	--	38-48	Deeper Limestone	143.83	143.64	12.19	131.45	11.06	132.58	11.33	132.31	10.12	133.52
MW-27	29	--	19 - 29	Shallow	145.93	145.78	12.44	133.34	9.44	136.34	10.48	135.30	8.47	137.31
MW-28	29	--	19 - 29	Shallow	146.35	146.12	14.13	131.99	12.95	133.17	13.22	132.90	11.98	134.14
MW-29	29	--	19 - 29	Shallow	141.03	140.55	8.60	131.95	7.52	133.03	7.72	132.83	6.57	133.98
MW-30D	60	--	50 - 60	Deeper Limestone	135.90	136.01	5.92	130.09	5.57	130.44	5.43	130.58	5.04	130.97
MW-31D	60	--	50 - 60	Deeper Limestone	141.39	141.39	10.32	131.07	9.67	131.72	9.68	131.71	8.92	132.47
MW-32D	60	--	50 - 60	Deeper Limestone	139.14	138.92	Abandoned		Abandoned		Abandoned		Abandoned	
MW-32DR	60	--	50 - 60	Deeper Limestone	139.20	138.88	8.42	130.46	7.54	131.34	7.68	131.20	6.75	132.13

Notes:

bgs = below ground surface; btoc - below top of casing; H&H - Hart & Hickman; NI = Not Installed; NA = Not Applicable NI - Not installed on the date of the measurement. NM - No measurement collected.

1. Depth to water measured in feet btoc.
2. Top of casing and ground surface elevations for most wells surveyed by Edisto Engineers and Surveyors, Inc. on May 23, 2011 and March 20, 2014. MW-15D1 TOC elevation tied into existing site wells by H&H on April 30, 2012. Monitoring wells MW-24, MW-25D, and MW-26D were surveyed by AECOM on January 26, 2016. Monitoring wells MW-27 through MW-29 and MW-30D through MW-32DR were surveyed by AECOM on May 10, 2017.
3. Vertical positions are referenced to the North American Vertical Datum of 1988 (NAVD88).
4. Information for historic monitoring wells from Table 1 of the RI Workplan (H&H, 2013).

Table 2
Groundwater Quality Indicator Parameters
Delavan Spray Technologies Site
Bamberg, South Carolina

Well	pH (S.U.)	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mV)	Ferrous Iron (mg/L)
MW-1	5.57	0.032	18.76	6.98	5.31	398.1	NM
MW-2	NM	NM	NM	NM	NM	NM	NM
MW-3	4.64	0.020	22.30	5.09	5.05	344.9	NM
MW-3D	7.40	0.234	24.00	1.42	2.20	144.4	NM
MW-3D1	NM	NM	NM	NM	NM	NM	NM
MW-4	NM	NM	NM	NM	NM	NM	NM
MW-5	5.72	0.019	19.84	4.47	6.99	407.6	NM
MW-6	NM	NM	NM	NM	NM	NM	NM
MW-7	4.76	0.015	19.50	5.65	7.54	284.6	NM
MW-8	5.98	0.065	21.48	4.57	3.12	340.0	NM
MW-9	4.47	0.028	19.80	7.71	1.69	346.8	NM
MW-9D	NM	NM	NM	NM	NM	NM	NM
MW-10	1.74*	0.022	19.50	3.95	1.45*	413.4*	NM
MW-10D	NM	NM	NM	NM	NM	NM	NM
MW-11	NM	NM	NM	NM	NM	NM	NM
MW-12D	9.28	0.218	18.10	0.10	4.55	145.2	NM
MW-13D	7.63	0.226	19.70	0.75	3.87	157.0	NM
MW-14	3.30*	0.019	22.10	5.96	79.8*	358.6*	NM
MW-14D	6.48	0.217	22.22	5.30	7.30	136.8	NM
MW-15	5.44	0.333	18.60	6.10	0.09	88.6	NM
MW-15D	NM	NM	NM	NM	NM	NM	NM
MW-15D1	NM	NM	NM	NM	NM	NM	NM
MW-16	4.58	0.027	16.60	5.15	0.12	154.1	NM
MW-16D	NM	NM	NM	NM	NM	NM	NM
MW-17	NM	NM	NM	NM	NM	NM	NM
MW-18	NM	NM	NM	NM	NM	NM	NM
MW-19	4.07	0.081	21.40	1.05	1.03	245.2	NM
MW-20	4.21	0.033	21.40	0.00	3.82	285.0	NM
MW-21	3.38*	0.020	22.42	4.27	0.22*	347.7*	NM
MW-21D	6.67	0.216	21.48	3.96	0.96	68.8	NM
MW-22D	6.79	0.250	20.76	3.43	3.48	190.3	NM
MW-23D	NM	NM	NM	NM	NM	NM	NM
MW-24	4.47	0.018	19.20	5.63	6.09	311.1	NM
MW-25D	7.70	0.248	19.32	4.22	3.36	138.8	NM
MW-26D	6.36	0.251	20.44	4.64	2.47	187.3	NM
MW-27	5.10	0.036	19.10	1.00	5.36	379.8	NM
MW-28	7.31	0.224	18.90	16.34	1.94	171.3	NM
MW-29	5.39	0.041	20.10	5.85	0.98	265.0	NM
MW-30D	6.72	0.277	20.24	5.73	2.76	172.3	NM
MW-31D	6.21	0.261	19.77	5.23	3.80	208.2	NM
MW-32D	Abandoned						
MW-32DR	6.23	0.255	18.74	3.10	1.78	186.6	NM

Notes:

* - Meter malfunction. Reading is believed to be anomalous.

°C - degrees Celsius

mS/cm - milliSiemens per centimeter

ORP - oxidation-reduction potential

NS - not sampled

S.U. - standard units

mg/L - milligrams per liter

mV - millivolts

NM - not measured

NTUs - Nephelometric Turbidity Units

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-1 FA63597-7 4/24/2019	MW-3 FA63597-3 4/23/2019	MW-3D FA63569-24 4/23/2019	MW-5 FA63597-11 4/24/2019	MW-7 FA63597-9 4/24/2019
Volatile Organic Compounds by Method 8260B (µg/L)						
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 1.2	< 0.25	< 0.25
1,1,2,2-Tetrachloroethane	—	< 0.6	< 0.6	< 1.5	< 0.3	< 0.3
1,1,2-Trichloroethane	5	< 0.93	< 0.93	< 2.3	< 0.47	< 0.47
1,1-Dichloroethane	—	< 0.68	< 0.68	< 1.7	< 0.34	< 0.34
1,1-Dichloroethylene	7	< 0.64	< 0.64	5.6	< 0.32	< 0.32
1,2-Dichloroethane	5	< 0.62	< 0.62	< 1.6	< 0.31	< 0.31
1,2-Dichloropropane	5	< 0.85	< 0.85	< 2.1	< 0.43	< 0.43
2-Butanone (MEK)	—	< 4	< 4	< 10	< 2	< 2
2-Hexanone	—	< 4	< 4	< 10	< 2	< 2
4-Methyl-2-pentanone (MIBK)	—	< 2	< 2	< 5	< 1	< 1
Acetone	—	< 20	< 20	< 50	< 10	< 10
Benzene	5	< 0.62	< 0.62	< 1.6	< 0.31	< 0.31
Bromodichloromethane	80 ¹	< 0.48	< 0.48	< 1.2	< 0.24	< 0.24
Bromoform	80 ¹	< 0.81	< 0.81	< 2	< 0.41	< 0.41
Carbon Disulfide	—	< 1.1	< 1.1	< 2.7	< 0.53	< 0.53
Carbon Tetrachloride	5	< 0.71	< 0.71	< 1.8	< 0.36	< 0.36
Chlorobenzene	100	< 0.4	< 0.4	< 1	< 0.2	< 0.2
Chloroethane	—	< 1.3	< 1.3	< 3.3	< 0.67	< 0.67
Chloroform	80 ¹	< 0.6	< 0.6	< 1.5	< 0.3	< 0.3
cis-1,2-Dichloroethylene	70	5	1.9 J	7.4	< 0.28	< 0.28
cis-1,3-Dichloropropene	—	< 0.58	< 0.58	< 1.5	< 0.29	< 0.29
Dibromochloromethane	80 ¹	< 0.55	< 0.55	< 1.4	< 0.28	< 0.28
Ethylbenzene	700	< 0.71	< 0.71	< 1.8	< 0.36	< 0.36
Methyl Bromide	—	< 1.2	< 1.2	< 2.9	< 0.59	< 0.59
Methyl Chloride	—	< 1	< 1	< 2.5	< 0.5	< 0.5
Methylene Chloride	5	< 4	< 4	< 10	< 2	< 2
Styrene	100	< 0.44	< 0.44	< 1.1	< 0.22	< 0.22
Tetrachloroethylene	5	195	132	296	1.2	< 0.22
Toluene	1000	< 0.6	< 0.6	< 1.5	< 0.3	0.38 J
trans-1,2-Dichloroethylene	100	< 0.44	< 0.44	< 1.1	< 0.22	< 0.22
trans-1,3-Dichloropropene	—	< 0.43	< 0.43	< 1.1	< 0.21	< 0.21
Trichloroethylene	5	2.2	1.7 J	9	< 0.35	< 0.35
Vinyl Chloride	2	< 0.82	< 0.82	< 2	< 0.41	< 0.41
Xylene (total)	10000	< 1.4	< 1.4	< 3.6	< 0.72	< 0.72

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-8 FA63597-8 4/24/2019	MW-9 FA63569-21 4/23/2019	MW-10 FA63597-4 4/23/2019	MW-12D FA63569-9 4/23/2019	MW-13D FA63569-17 4/23/2019
Volatile Organic Compounds by Method 8260B (µg/L)						
1,1,1-Trichloroethane	200	< 0.25	< 1.2	< 0.25	< 0.25	0.93 J
1,1,2,2-Tetrachloroethane	—	< 0.3	< 1.5	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	5	< 0.47	< 2.3	< 0.47	< 0.47	< 0.47
1,1-Dichloroethane	—	< 0.34	< 1.7	< 0.34	< 0.34	< 0.34
1,1-Dichloroethylene	7	< 0.32	< 1.6	3	1.2	3.2
1,2-Dichloroethane	5	< 0.31	< 1.6	< 0.31	< 0.31	< 0.31
1,2-Dichloropropane	5	< 0.43	< 2.1	< 0.43	< 0.43	< 0.43
2-Butanone (MEK)	—	< 2	< 10	< 2	< 2	< 2
2-Hexanone	—	< 2	< 10	< 2	< 2	< 2
4-Methyl-2-pentanone (MIBK)	—	< 1	< 5	< 1	< 1	< 1
Acetone	—	< 10	< 50	< 10	< 10	< 10
Benzene	5	< 0.31	< 1.6	< 0.31	< 0.31	< 0.31
Bromodichloromethane	80 ¹	< 0.24	< 1.2	< 0.24	< 0.24	< 0.24
Bromoform	80 ¹	< 0.41	< 2	< 0.41	< 0.41	< 0.41
Carbon Disulfide	—	< 0.53	< 2.7	< 0.53	< 0.53	< 0.53
Carbon Tetrachloride	5	< 0.36	< 1.8	< 0.36	< 0.36	< 0.36
Chlorobenzene	100	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Chloroethane	—	< 0.67	< 3.3	< 0.67	< 0.67	< 0.67
Chloroform	80 ¹	< 0.3	< 1.5	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethylene	70	1.8	9.6	72.6	< 0.28	< 0.28
cis-1,3-Dichloropropene	—	< 0.29	< 1.5	< 0.29	< 0.29	< 0.29
Dibromochloromethane	80 ¹	< 0.28	< 1.4	< 0.28	< 0.28	< 0.28
Ethylbenzene	700	< 0.36	< 1.8	< 0.36	< 0.36	< 0.36
Methyl Bromide	—	< 0.59	< 2.9	< 0.59	< 0.59	< 0.59
Methyl Chloride	—	< 0.5	< 2.5	< 0.5	< 0.5	< 0.5
Methylene Chloride	5	< 2	< 10	< 2	< 2	< 2
Styrene	100	< 0.22	< 1.1	< 0.22	< 0.22	< 0.22
Tetrachloroethylene	5	174	513	82.8	92.1	170
Toluene	1000	< 0.3	< 1.5	< 0.3	< 0.3	< 0.3
trans-1,2-Dichloroethylene	100	< 0.22	< 1.1	< 0.22	< 0.22	< 0.22
trans-1,3-Dichloropropene	—	< 0.21	< 1.1	< 0.21	< 0.21	< 0.21
Trichloroethylene	5	14.2	47.1	28.3	< 0.35	< 0.35
Vinyl Chloride	2	< 0.41	< 2	< 0.41	< 0.41	< 0.41
Xylene (total)	10000	< 0.72	< 3.6	< 0.72	< 0.72	< 0.72

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-14 FA63569-18 4/23/2019	MW-14D FA63569-19 4/23/2019	MW-15 FA63569-4 4/22/2019	MW-16 FA63597-6 4/24/2019	MW-19 FA63569-6 4/22/2019
Volatile Organic Compounds by Method 8260B (µg/L)						
1,1,1-Trichloroethane	200	< 0.25	< 0.25	< 0.25	< 0.25	95.2 J
1,1,2,2-Tetrachloroethane	—	< 0.3	< 0.3	< 0.3	< 0.3	< 75
1,1,2-Trichloroethane	5	< 0.47	< 0.47	< 0.47	< 0.47	< 120
1,1-Dichloroethane	—	< 0.34	< 0.34	< 0.34	< 0.34	< 85
1,1-Dichloroethylene	7	< 0.32	0.99 J	< 0.32	< 0.32	< 81
1,2-Dichloroethane	5	< 0.31	< 0.31	< 0.31	< 0.31	< 78
1,2-Dichloropropane	5	< 0.43	< 0.43	< 0.43	< 0.43	< 110
2-Butanone (MEK)	—	< 2	< 2	< 2	< 2	< 500
2-Hexanone	—	< 2	< 2	< 2	< 2	< 500
4-Methyl-2-pentanone (MIBK)	—	< 1	< 1	< 1	< 1	< 250
Acetone	—	< 10	< 10	< 10	< 10	< 2500
Benzene	5	< 0.31	< 0.31	< 0.31	< 0.31	< 78
Bromodichloromethane	80 ¹	< 0.24	< 0.24	< 0.24	< 0.24	< 61
Bromoform	80 ¹	< 0.41	< 0.41	< 0.41	< 0.41	< 100
Carbon Disulfide	—	< 0.53	< 0.53	< 0.53	< 0.53	< 130
Carbon Tetrachloride	5	< 0.36	< 0.36	< 0.36	< 0.36	< 89
Chlorobenzene	100	< 0.2	< 0.2	< 0.2	< 0.2	< 50
Chloroethane	—	< 0.67	< 0.67	< 0.67	< 0.67	< 170
Chloroform	80 ¹	< 0.3	< 0.3	< 0.3	< 0.3	< 75
cis-1,2-Dichloroethylene	70	< 0.28	0.51 J	< 0.28	< 0.28	< 69
cis-1,3-Dichloropropene	—	< 0.29	< 0.29	< 0.29	< 0.29	< 73
Dibromochloromethane	80 ¹	< 0.28	< 0.28	< 0.28	< 0.28	< 69
Ethylbenzene	700	< 0.36	< 0.36	< 0.36	< 0.36	< 89
Methyl Bromide	—	< 0.59	< 0.59	< 0.59	< 0.59	< 150
Methyl Chloride	—	< 0.5	< 0.5	< 0.5	< 0.5	< 130
Methylene Chloride	5	< 2	< 2	< 2	< 2	< 500
Styrene	100	< 0.22	< 0.22	< 0.22	< 0.22	< 56
Tetrachloroethylene	5	< 0.22	80.6	< 0.22	< 0.22	24400
Toluene	1000	< 0.3	< 0.3	< 0.3	0.39 J	< 75
trans-1,2-Dichloroethylene	100	< 0.22	< 0.22	< 0.22	< 0.22	< 55
trans-1,3-Dichloropropene	—	< 0.21	< 0.21	< 0.21	< 0.21	< 54
Trichloroethylene	5	< 0.35	0.62 J	< 0.35	< 0.35	< 86
Vinyl Chloride	2	< 0.41	< 0.41	< 0.41	< 0.41	< 100
Xylene (total)	10000	< 0.72	< 0.72	< 0.72	< 0.72	< 180

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-20 FA63569-7 4/22/2019	MW-21 FA63597-5 4/23/2019	MW-21D FA63569-23 4/23/2019	MW-22D FA63569-15 4/23/2019	MW-24 FA63597-10 4/24/2019
Volatile Organic Compounds by Method 8260B (µg/L)						
1,1,1-Trichloroethane	200	< 1.2	< 62	< 0.25	< 0.5	< 5
1,1,2,2-Tetrachloroethane	—	< 1.5	< 75	< 0.3	< 0.6	< 6
1,1,2-Trichloroethane	5	< 2.3	< 120	< 0.47	< 0.93	< 9.3
1,1-Dichloroethane	—	< 1.7	< 85	< 0.34	< 0.68	< 6.8
1,1-Dichloroethylene	7	< 1.6	< 81	1.2	1.6 J	< 6.4
1,2-Dichloroethane	5	< 1.6	< 78	< 0.31	< 0.62	< 6.2
1,2-Dichloropropane	5	< 2.1	< 110	< 0.43	< 0.85	< 8.5
2-Butanone (MEK)	—	< 10	< 500	< 2	< 4	< 40
2-Hexanone	—	< 10	< 500	< 2	< 4	< 40
4-Methyl-2-pentanone (MIBK)	—	< 5	< 250	< 1	< 2	< 20
Acetone	—	< 50	< 2500	< 10	< 20	< 200
Benzene	5	< 1.6	< 78	< 0.31	< 0.62	< 6.2
Bromodichloromethane	80 ¹	< 1.2	< 61	< 0.24	< 0.48	< 4.8
Bromoform	80 ¹	< 2	< 100	< 0.41	< 0.81	< 8.1
Carbon Disulfide	—	< 2.7	< 130	< 0.53	< 1.1	< 11
Carbon Tetrachloride	5	< 1.8	< 89	< 0.36	< 0.71	< 7.1
Chlorobenzene	100	< 1	< 50	< 0.2	< 0.4	< 4
Chloroethane	—	< 3.3	< 170	< 0.67	< 1.3	< 13
Chloroform	80 ¹	< 1.5	< 75	< 0.3	< 0.6	< 6
cis-1,2-Dichloroethylene	70	< 1.4	817	0.44 J	< 0.55	27.4
cis-1,3-Dichloropropene	—	< 1.5	< 73	< 0.29	< 0.58	< 5.8
Dibromochloromethane	80 ¹	< 1.4	< 69	< 0.28	< 0.55	< 5.5
Ethylbenzene	700	< 1.8	< 89	< 0.36	< 0.71	< 7.1
Methyl Bromide	—	< 2.9	< 150	< 0.59	< 1.2	< 12
Methyl Chloride	—	< 2.5	< 130	< 0.5	< 1	< 10
Methylene Chloride	5	< 10	< 500	< 2	< 4	< 40
Styrene	100	< 1.1	< 56	< 0.22	< 0.44	< 4.4
Tetrachloroethylene	5	466	20800	38.7	133	2290
Toluene	1000	< 1.5	< 75	< 0.3	< 0.6	< 6
trans-1,2-Dichloroethylene	100	< 1.1	< 55	< 0.22	< 0.44	< 4.4
trans-1,3-Dichloropropene	—	< 1.1	< 54	< 0.21	< 0.43	< 4.3
Trichloroethylene	5	3.6 J	314	< 0.35	< 0.69	< 6.9
Vinyl Chloride	2	< 2	< 100	< 0.41	< 0.82	< 8.2
Xylene (total)	10000	< 3.6	< 180	< 0.72	< 1.4	< 14

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-25D FA63569-8 4/23/2019	MW-26D FA63569-13 4/23/2019	MW-27 FA63569-12 4/23/2019	MW-28 FA63569-11 4/23/2019	MW-29 FA63569-14 4/23/2019
Volatile Organic Compounds by Method 8260B (µg/L)						
1,1,1-Trichloroethane	200	< 0.5	< 0.25	< 0.25	< 0.25	< 0.25
1,1,2,2-Tetrachloroethane	—	< 0.6	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	5	< 0.93	< 0.47	< 0.47	< 0.47	< 0.47
1,1-Dichloroethane	—	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34
1,1-Dichloroethylene	7	3.1	1.3	< 0.32	< 0.32	< 0.32
1,2-Dichloroethane	5	< 0.62	< 0.31	< 0.31	< 0.31	< 0.31
1,2-Dichloropropane	5	< 0.85	< 0.43	< 0.43	< 0.43	< 0.43
2-Butanone (MEK)	—	< 4	< 2	< 2	< 2	< 2
2-Hexanone	—	< 4	< 2	< 2	< 2	< 2
4-Methyl-2-pentanone (MIBK)	—	< 2	< 1	< 1	< 1	< 1
Acetone	—	< 20	< 10	< 10	< 10	< 10
Benzene	5	< 0.62	< 0.31	< 0.31	< 0.31	< 0.31
Bromodichloromethane	80 ¹	< 0.48	< 0.24	< 0.24	< 0.24	< 0.24
Bromoform	80 ¹	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41
Carbon Disulfide	—	< 1.1	< 0.53	< 0.53	< 0.53	< 0.53
Carbon Tetrachloride	5	< 0.71	< 0.36	< 0.36	< 0.36	< 0.36
Chlorobenzene	100	< 0.4	< 0.2	< 0.2	< 0.2	< 0.2
Chloroethane	—	< 1.3	< 0.67	< 0.67	< 0.67	< 0.67
Chloroform	80 ¹	< 0.6	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethylene	70	1 J	0.79 J	< 0.28	< 0.28	< 0.28
cis-1,3-Dichloropropene	—	< 0.58	< 0.29	< 0.29	< 0.29	< 0.29
Dibromochloromethane	80 ¹	< 0.55	< 0.28	< 0.28	< 0.28	< 0.28
Ethylbenzene	700	< 0.71	< 0.36	< 0.36	< 0.36	< 0.36
Methyl Bromide	—	< 1.2	< 0.59	< 0.59	< 0.59	< 0.59
Methyl Chloride	—	< 1	< 0.5	< 0.5	< 0.5	< 0.5
Methylene Chloride	5	< 4	< 2	< 2	< 2	< 2
Styrene	100	< 0.44	< 0.22	< 0.22	< 0.22	< 0.22
Tetrachloroethylene	5	195	89.9	< 0.22	< 0.22	< 0.22
Toluene	1000	< 0.6	< 0.3	< 0.3	< 0.3	< 0.3
trans-1,2-Dichloroethylene	100	< 0.44	< 0.22	< 0.22	< 0.22	< 0.22
trans-1,3-Dichloropropene	—	< 0.43	< 0.21	< 0.21	< 0.21	< 0.21
Trichloroethylene	5	1.2 J	1.2	< 0.35	< 0.35	< 0.35
Vinyl Chloride	2	< 0.82	< 0.41	< 0.41	< 0.41	< 0.41
Xylene (total)	10000	< 1.4	< 0.72	< 0.72	< 0.72	< 0.72

Table 3
Analytical Results for Monitoring Well Groundwater Samples
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA MCL	MW-30D FA63569-3 4/22/2019	MW-31D FA63569-5 4/22/2019	MW-32DR FA63569-10 4/23/2019
Volatile Organic Compounds by Method 8260B (µg/L)				
1,1,1-Trichloroethane	200	< 0.5	< 0.62	< 0.25
1,1,2,2-Tetrachloroethane	—	< 0.6	< 0.75	< 0.3
1,1,2-Trichloroethane	5	< 0.93	< 1.2	< 0.47
1,1-Dichloroethane	—	< 0.68	< 0.85	< 0.34
1,1-Dichloroethylene	7	2.4	4	0.62 J
1,2-Dichloroethane	5	< 0.62	< 0.78	< 0.31
1,2-Dichloropropane	5	< 0.85	< 1.1	< 0.43
2-Butanone (MEK)	—	< 4	< 5	< 2
2-Hexanone	—	< 4	< 5	< 2
4-Methyl-2-pentanone (MIBK)	—	< 2	< 2.5	< 1
Acetone	—	< 20	< 25	< 10
Benzene	5	< 0.62	< 0.78	< 0.31
Bromodichloromethane	80 ¹	< 0.48	< 0.61	< 0.24
Bromoform	80 ¹	< 0.81	< 1	< 0.41
Carbon Disulfide	—	< 1.1	< 1.3	< 0.53
Carbon Tetrachloride	5	< 0.71	< 0.89	< 0.36
Chlorobenzene	100	< 0.4	< 0.5	< 0.2
Chloroethane	—	< 1.3	< 1.7	< 0.67
Chloroform	80 ¹	< 0.6	< 0.75	< 0.3
cis-1,2-Dichloroethylene	70	1 J	< 0.69	< 0.28
cis-1,3-Dichloropropene	—	< 0.58	< 0.73	< 0.29
Dibromochloromethane	80 ¹	< 0.55	< 0.69	< 0.28
Ethylbenzene	700	< 0.71	< 0.89	< 0.36
Methyl Bromide	—	< 1.2	< 1.5	< 0.59
Methyl Chloride	—	< 1	< 1.3	< 0.5
Methylene Chloride	5	< 4	< 5	< 2
Styrene	100	< 0.44	< 0.56	< 0.22
Tetrachloroethylene	5	149	232	33.9
Toluene	1000	< 0.6	< 0.75	< 0.3
trans-1,2-Dichloroethylene	100	< 0.44	< 0.55	< 0.22
trans-1,3-Dichloropropene	—	< 0.43	< 0.54	< 0.21
Trichloroethylene	5	< 0.69	< 0.86	0.6 J
Vinyl Chloride	2	< 0.82	< 1	< 0.41
Xylene (total)	10000	< 1.4	< 1.8	< 0.72

Notes:

µg/L - micrograms per liter (parts per billion)

USEPA MCL - United States Environmental Protection Agency Maximum Contaminant Level (March, 2018).

¹ 1998 Final Rule for Disinfectants and Disinfection By-products. The total for trihalomethanes (THM) is 80 ug/L.

— - Indicates No Standard (for screening criteria).

Bold font and shading indicate the concentration is detected.

Bold outline indicates the concentration exceeds the MCL.

South Carolina Department of Health and Environmental Control (SCDHEC) R.61-68 Water Classifications and Standards (June 27, 2014) were also identified for the list of detected chemicals in groundwater. In each case, however, they were the same values as the USEPA MCLs.

< - Indicates not detected at the reporting limit indicated.

J - Estimated concentration above the method detection limit and below the reporting limit.

Table 4
Analytical Results for Investigation-Derived Waste Sample
Delavan Spray Technologies Site
Bamberg, South Carolina

Sample ID Lab Sample ID Date Collected	USEPA Toxicity Characteristic	IDW-1 FA63597-12 4/24/2019
Volatile Organic Compounds by Method 8260B (µg/L)		
1,1,1-Trichloroethane	—	< 2.5
1,1,2,2-Tetrachloroethane	—	< 3
1,1,2-Trichloroethane	—	< 4.7
1,1-Dichloroethane	—	< 3.4
1,1-Dichloroethylene	700	< 3.2
1,2-Dichloroethane	500	< 3.1
1,2-Dichloropropane	—	< 4.3
2-Butanone (MEK)	200,000	< 20
2-Hexanone	—	< 20
4-Methyl-2-pentanone (MIBK)	—	< 10
Acetone	—	< 100
Benzene	500	< 3.1
Bromodichloromethane	—	< 2.4
Bromoform	—	< 4.1
Carbon Disulfide	—	< 5.3
Carbon Tetrachloride	500	< 3.6
Chlorobenzene	100,000	< 2
Chloroethane	—	< 6.7
Chloroform	6,000	< 3
cis-1,2-Dichloroethylene	—	29.8
cis-1,3-Dichloropropene	—	< 2.9
Dibromochloromethane	—	< 2.8
Ethylbenzene	—	< 3.6
Methyl Bromide	—	< 5.9
Methyl Chloride	—	< 5
Methylene Chloride	—	< 20
Styrene	—	< 2.2
Tetrachloroethylene	700	689
Toluene	—	< 3
trans-1,2-Dichloroethylene	—	< 2.2
trans-1,3-Dichloropropene	—	< 2.1
Trichloroethylene	500	11.8
Vinyl Chloride	200	< 4.1
Xylene (total)	—	< 7.2
Semivolatile Organic Compounds by Method 8270D (µg/L)		
1,2,4-Trichlorobenzene	—	< 1
1,2-Dichlorobenzene	—	< 0.49
1,3-Dichlorobenzene	—	< 0.49
1,4-Dichlorobenzene	7,500	< 0.49
2,2'-Oxybis(1-chloropropane)	—	< 0.73
2,4,5-Trichlorophenol	400,000	< 0.72
2,4,6-Trichlorophenol	2,000	< 0.73
2,4-Dichlorophenol	—	< 0.81
2,4-Dimethylphenol	—	< 0.72
2,4-Dinitrophenol	—	< 4.9
2,4-Dinitrotoluene	130	< 0.79
2,6-Dinitrotoluene	—	< 0.69
2-Chloronaphthalene	—	< 0.49
2-Chlorophenol	—	< 0.61
2-Methylnaphthalene	—	< 0.58
2-Methylphenol	200,000	< 0.54
2-Nitroaniline	—	< 1.8
2-Nitrophenol	—	< 0.83
3&4-Methylphenol	200,000	< 0.95
3,3'-Dichlorobenzidine	—	< 0.62
3-Nitroaniline	—	< 0.85
4,6-Dinitro-o-cresol	—	< 1.9
4-Bromophenyl Phenyl Ether	—	< 0.82
4-Chloro-3-methyl Phenol	—	< 0.58
4-Chloroaniline	—	< 0.61
4-Chlorophenyl Phenyl Ether	—	< 0.52
4-Nitroaniline	—	< 1.1

Table 4
Analytical Results for Investigation-Derived Waste Sample
Delavan Spray Technologies Site
Bamberg, South Carolina

Semivolatile Organic Compounds by Method 8270D (µg/L)			
4-Nitrophenol	—	<	4.9
Acenaphthene	—	<	0.61
Acenaphthylene	—	<	0.62
Anthracene	—	<	0.77
Benzo(a)anthracene	—	<	0.74
Benzo(a)pyrene	—	<	0.76
Benzo(b)fluoranthene	—	<	0.75
Benzo(g,h,i)perylene	—	<	0.8
Benzo(k)fluoranthene	—	<	0.83
Benzoic Acid	—	<	9.7
Benzyl Alcohol	—	<	0.6
bis(2-Chloroethoxy)methane	—	<	0.79
bis(2-Chloroethyl)ether	—	<	0.71
bis(2-Ethylhexyl)phthalate	—	<	0.97
Butyl Benzyl Phthalate	—	<	0.97
Carbazole	—	<	0.58
Chrysene	—	<	0.83
Di-n-butyl Phthalate	—	<	0.97
Di-n-octyl Phthalate	—	<	0.97
Dibenzo(a,h)anthracene	—	<	0.78
Dibenzofuran	—	<	0.58
Diethyl Phthalate	—	<	0.97
Dimethyl Phthalate	—	<	0.97
Fluoranthene	—	<	0.54
Fluorene	—	<	0.68
Hexachlorobenzene	130	<	0.67
Hexachlorobutadiene	500	<	0.49
Hexachlorocyclopentadiene	—	<	1.8
Hexachloroethane	3,000	<	1.6
Indeno(1,2,3-cd)pyrene	—	<	0.69
Isophorone	—	<	0.75
N-Nitrosodi-n-propylamine	—	<	0.65
N-Nitrosodiphenylamine	—	<	0.78
Naphthalene	—	<	0.49
Nitrobenzene	2,000	<	0.91
Pentachlorophenol	100,000	<	4.9
Phenanthrene	—	<	0.84
Phenol	—	<	0.49
Pyrene	—	<	0.66
Metals by Method 6010C/7470B (µg/L)			
Antimony	—	<	1
Arsenic	5,000	<	1.3
Beryllium	—	<	0.2
Cadmium	1,000	<	0.2
Chromium	5,000	3	J
Copper	—	2.7	J
Lead	5,000	<	1.1
Mercury	200	<	0.03
Nickel	—	0.8	J
Selenium	1,000	<	2.9
Silver	5,000	<	0.7
Thallium	—	<	1.4
Zinc	—	20.9	

Notes:

— - No Standard

IDW - Investigation Derived Waste

µg/L - micrograms per liter (parts per billion)

USEPA Toxicity Characteristic - United States Environmental Protection

Agency Maximum Concentration of Contaminants for the Toxicity

Characteristic (40CFR§261.24 Toxicity Characteristic, July 1, 2007).

Bold font and shading indicates the analyte was detected.

< - Indicates not detected at the reporting limit indicated.

J - Estimated concentration above the method detection limit and below the reporting limit.

Table 5
Summary of QA/QC Sample Results
Delavan Spray Technologies Site
Bamberg, South Carolina

Calculated Relative Percent Differences between Primary and Field Duplicate Samples

Sample ID Lab Sample ID Date Collected	MW-14D FA63569-19 4/23/2019	MW-14D-A FA63569-20 4/23/2019	Relative Percent Difference	MW-22D FA63569-15 4/23/2019	MW-22D-A FA63569-16 4/23/2019	Relative Percent Difference	MW-32DR FA63569-10 4/23/2019	MW-32DR-A FA63569-25 4/23/2019	Relative Percent Difference
Volatile Organic Compounds by Method 8260B (µg/L)									
1,1,1-Trichloroethane	< 0.25	< 0.25	NC	< 0.5	< 0.5	NC	< 0.25	< 0.25	NC
1,1,2,2-Tetrachloroethane	< 0.3	< 0.3	NC	< 0.6	< 0.6	NC	< 0.3	< 0.3	NC
1,1,2-Trichloroethane	< 0.47	< 0.47	NC	< 0.93	< 0.93	NC	< 0.47	< 0.47	NC
1,1-Dichloroethane	< 0.34	< 0.34	NC	< 0.68	< 0.68	NC	< 0.34	< 0.34	NC
1,1-Dichloroethylene	0.99 J	1	NC	1.6 J	2.1	NC	0.62 J	0.59 J	NC
1,2-Dichloroethane	< 0.31	< 0.31	NC	< 0.62	< 0.62	NC	< 0.31	< 0.31	NC
1,2-Dichloropropane	< 0.43	< 0.43	NC	< 0.85	< 0.85	NC	< 0.43	< 0.43	NC
2-Butanone (MEK)	< 2	< 2	NC	< 4	< 4	NC	< 2	< 2	NC
2-Hexanone	< 2	< 2	NC	< 4	< 4	NC	< 2	< 2	NC
4-Methyl-2-pentanone (MIBK)	< 1	< 1	NC	< 2	< 2	NC	< 1	< 1	NC
Acetone	< 10	< 10	NC	< 20	< 20	NC	< 10	< 10	NC
Benzene	< 0.31	< 0.31	NC	< 0.62	< 0.62	NC	< 0.31	< 0.31	NC
Bromodichloromethane	< 0.24	< 0.24	NC	< 0.48	< 0.48	NC	< 0.24	< 0.24	NC
Bromoform	< 0.41	< 0.41	NC	< 0.81	< 0.81	NC	< 0.41	< 0.41	NC
Carbon Disulfide	< 0.53	< 0.53	NC	< 1.1	< 1.1	NC	< 0.53	< 0.53	NC
Carbon Tetrachloride	< 0.36	< 0.36	NC	< 0.71	< 0.71	NC	< 0.36	< 0.36	NC
Chlorobenzene	< 0.2	< 0.2	NC	< 0.4	< 0.4	NC	< 0.2	< 0.2	NC
Chloroethane	< 0.67	< 0.67	NC	< 1.3	< 1.3	NC	< 0.67	< 0.67	NC
Chloroform	< 0.3	< 0.3	NC	< 0.6	< 0.6	NC	< 0.3	< 0.3	NC
cis-1,2-Dichloroethylene	0.51 J	0.44 J	NC	< 0.55	0.6 J	NC	< 0.28	< 0.28	NC
cis-1,3-Dichloropropene	< 0.29	< 0.29	NC	< 0.58	< 0.58	NC	< 0.29	< 0.29	NC
Dibromochloromethane	< 0.28	< 0.28	NC	< 0.55	< 0.55	NC	< 0.28	< 0.28	NC
Ethylbenzene	< 0.36	< 0.36	NC	< 0.71	< 0.71	NC	< 0.36	< 0.36	NC
Methyl Bromide	< 0.59	< 0.59	NC	< 1.2	< 1.2	NC	< 0.59	< 0.59	NC
Methyl Chloride	< 0.5	< 0.5	NC	< 1	< 1	NC	< 0.5	< 0.5	NC
Methylene Chloride	< 2	< 2	NC	< 4	< 4	NC	< 2	< 2	NC
Styrene	< 0.22	< 0.22	NC	< 0.44	< 0.44	NC	< 0.22	< 0.22	NC
Tetrachloroethylene	80.6	75.9	6.0	133	167	22.7	33.9	29.9	12.5
Toluene	< 0.3	< 0.3	NC	< 0.6	< 0.6	NC	< 0.3	< 0.3	NC
trans-1,2-Dichloroethylene	< 0.22	< 0.22	NC	< 0.44	< 0.44	NC	< 0.22	< 0.22	NC
trans-1,3-Dichloropropene	< 0.21	< 0.21	NC	< 0.43	< 0.43	NC	< 0.21	< 0.21	NC
Trichloroethylene	0.62 J	0.53 J	NC	< 0.69	0.94 J	NC	0.6 J	0.52 J	NC
Vinyl Chloride	< 0.41	< 0.41	NC	< 0.82	< 0.82	NC	< 0.41	< 0.41	NC
Xylene (total)	< 0.72	< 0.72	NC	< 1.4	< 1.4	NC	< 0.72	< 0.72	NC

Notes:

-A - Indicates a field duplicate sample.

NC - Not Calculated

µg/L - micrograms per liter (parts per billion)

< - Indicates not detected at the reporting limit indicated.

J - Estimated concentration above the method detection limit and below the reporting limit.

Table 5
Summary of QA/QC Sample Results
Delavan Spray Technologies Site
Bamberg, South Carolina

Trip Blanks					
Sample ID Lab Sample ID Date Collected	TRIP BLANK-1 FA63569-1 4/22/2019	TRIP BLANK-2 FA63569-2 4/22/2019	TRIP BLANK-3 FA63597-1 4/23/2019	TRIP BLANK-4 FA63597-2 4/23/2019	
Volatile Organic Compounds by Method 8260B (µg/L)					
1,1,1-Trichloroethane	< 0.25	< 0.25	< 0.25	< 0.25	
1,1,2,2-Tetrachloroethane	< 0.3	< 0.3	< 0.3	< 0.3	
1,1,2-Trichloroethane	< 0.47	< 0.47	< 0.47	< 0.47	
1,1-Dichloroethane	< 0.34	< 0.34	< 0.34	< 0.34	
1,1-Dichloroethylene	< 0.32	< 0.32	< 0.32	< 0.32	
1,2-Dichloroethane	< 0.31	< 0.31	< 0.31	< 0.31	
1,2-Dichloropropane	< 0.43	< 0.43	< 0.43	< 0.43	
2-Butanone (MEK)	< 2	< 2	< 2	< 2	
2-Hexanone	< 2	< 2	< 2	< 2	
4-Methyl-2-pentanone (MIBK)	< 1	< 1	< 1	< 1	
Acetone	< 10	< 10	< 10	< 10	
Benzene	< 0.31	< 0.31	< 0.31	< 0.31	
Bromodichloromethane	< 0.24	< 0.24	< 0.24	< 0.24	
Bromoform	< 0.41	< 0.41	< 0.41	< 0.41	
Carbon Disulfide	< 0.53	< 0.53	< 0.53	< 0.53	
Carbon Tetrachloride	< 0.36	< 0.36	< 0.36	< 0.36	
Chlorobenzene	< 0.2	< 0.2	< 0.2	< 0.2	
Chloroethane	< 0.67	< 0.67	< 0.67	< 0.67	
Chloroform	< 0.3	< 0.3	< 0.3	< 0.3	
cis-1,2-Dichloroethylene	< 0.28	< 0.28	< 0.28	< 0.28	
cis-1,3-Dichloropropene	< 0.29	< 0.29	< 0.29	< 0.29	
Dibromochloromethane	< 0.28	< 0.28	< 0.28	< 0.28	
Ethylbenzene	< 0.36	< 0.36	< 0.36	< 0.36	
Methyl Bromide	< 0.59	< 0.59	< 0.59	< 0.59	
Methyl Chloride	< 0.5	< 0.5	< 0.5	< 0.5	
Methylene Chloride	< 2	< 2	< 2	< 2	
Styrene	< 0.22	< 0.22	< 0.22	< 0.22	
Tetrachloroethylene	< 0.22	< 0.22	< 0.22	< 0.22	
Toluene	< 0.3	< 0.3	< 0.3	< 0.3	
trans-1,2-Dichloroethylene	< 0.22	< 0.22	< 0.22	< 0.22	
trans-1,3-Dichloropropene	< 0.21	< 0.21	< 0.21	< 0.21	
Trichloroethylene	< 0.35	< 0.35	< 0.35	< 0.35	
Vinyl Chloride	< 0.41	< 0.41	< 0.41	< 0.41	
Xylene (total)	< 0.72	< 0.72	< 0.72	< 0.72	

Notes:

µg/L - micrograms per liter (parts per billion)

< - Indicates not detected at the reporting limit indicated.

APPENDIX A

TECHNICAL MEMORANDUM – SPRING 2019 RESIDENTIAL SAMPLING ACTIVITIES AND RESULTS

TECHNICAL MEMORANDUM

TO: Cynde Devlin, SCDHEC
FROM: Conan Fitzgerald, AECOM
COPY: William Penn, UTC
Leslee J. Alexander, AECOM
AECOM Project File 60314964
RE: Spring 2019 Residential Sampling Activities and Results
Delavan Spray LLC
Bamberg, South Carolina
VCC 13-4762-RP
DATE: June 14, 2019

This Technical Memorandum presents the sampling activities and results for the residential well sampling conducted in the vicinity of the Delavan Spray Technologies Site ("Delavan"), a Delavan Spray LLC manufacturing facility located at 4334 Main Highway in Bamberg, South Carolina. The work described herein was completed by AECOM Technical Services, Inc. (AECOM) on behalf of Delavan Spray LLC, a UTC Aerospace Systems (UTAS) company.

Background

AECOM and UTAS participated in a teleconference with the South Carolina Department of Health and Environmental Control (SCDHEC) on December 15, 2017 regarding the activities scoped in the *Limestone Aquifer Groundwater Assessment Work Plan* (AECOM, October 13, 2017). During the call and as documented in follow-up correspondence dated December 18, 2017, SCDHEC requested the sampling of select private wells along Lemon Creek and Orange Grove Roads. Subsequently, residential well sampling activities were conducted and documented in two separate technical memoranda entitled *Residential Sampling Activities and Results* dated February 15, 2018 and June 4, 2018.

In 8 of the 28 residential well samples, PCE was detected at low levels below its USEPA MCL of 5 micrograms per liter (µg/L). PCE was not detected in the remaining residential well samples (AECOM, February 2018, June 2018).

Although the PCE detections in the residential wells were well below the MCL, Delavan offered to install granular activated carbon (GAC) treatment units on the wells where the PCE was detected at no cost to the residents. All 8 residents with the PCE detections elected to have GAC units installed. The GAC treatment units were installed in July 2018 and treatment verification sampling was completed in August and September 2018. A technical memorandum documenting the installation of GAC treatment systems was submitted to SCDHEC on January 15, 2019-.

As documented in correspondence from SCHDEC dated June 27, 2018, it was agreed that impacted private wells with GAC units would be resampled during the 2018 sampling event, and annually thereafter while the treatment systems are in place, but that the residential wells would not be added to the monitoring well network for semi-annual groundwater sampling. Additionally, Delavan elected to resample

all residential wells that had previously been sampled in 2018 in order to confirm the previous results. This residential well sampling was conducted in conjunction with the semi-annual monitoring event in October 2018 and the sampling activities and results were presented in the technical memorandum *Fall 2018 Residential Sampling Activities and Results* (AECOM, January 15, 2019). Low level detections of PCE below the MCL were detected in two additional properties during the fall 2018 sampling event. Delavan has offered to install GAC systems these residential wells and the residents have verbally replied to AECOM that they are interested in the systems. AECOM is currently making arrangements to have the GAC installation contractor visit the respective residences to perform a well evaluation for system design purposes.

As part of the spring 2019 semi-annual sampling, AECOM completed additional sampling at a subset of residential wells. The work completed and results of the sampling are discussed below.

Work Completed

Groundwater samples were collected from 10 residential wells on April 24, 2019 (Figure 1). Residential sampling locations were selected for sampling with the goal to:

1. Evaluate the effectiveness of the GAC treatment systems;
2. Verify low level concentrations of PCE that were detected in October 2018 on two wells without GAC systems; and
3. Sample residential wells that had not been available/accessible for sampling during the previous sampling events.

The residential wells that were sampled are presented in the inset table below along with the rationale for each sample.

Well Location	Rationale
13 LCT	Low-level PCE detection in October 2018; GAC has been offered to the resident
343 LCR	Low-level PCE detection in October 2018; GAC has been offered to the resident
410 LCR	Low-level PCE detection in January 2018 – GAC has been installed
448 LCR	Low-level PCE detection in January 2018 – GAC has been installed
546 LCR-A	Low-level PCE detection in January 2018 – GAC has been installed
546 LCR-B	Low-level PCE detection in January 2018 – GAC has been installed
684 LCR	Low-level PCE detection in January 2018 – GAC has been installed
689 LCR	Low-level PCE detection in January 2018 – GAC has been installed
715 LCR	First time sample; well was not operational on previous visits
743 LCR	Low-level PCE detection in January 2018 – GAC has been installed

The owner of residential well 698 LCR, which also has a GAC system installed, was contacted but the well was not sampled because there was no power to the pump at the time of sampling.

For residential wells without GAC treatments systems, groundwater samples were collected from the closest faucet to the pump. Except for 689 LCR, for residential wells with GAC treatments systems, groundwater samples were collected from both the pre-treatment and post-treatment sample ports. At well 689 LCR, the GAC system was disconnected at the time of sampling because the owner had to replace the pump. The sample at 689 LCR was collected from the spigot at the well head. The GAC system at this well is expected to be reconnected soon.

In each case, the faucet or sample port was purged for at least five (5) minutes prior to residential groundwater sample collection. Immediately before sample collection, field parameters were measured with a YSI water quality meter and recorded on the Residential Water Well Sampling Logs included in Attachment 1.

Upon collection, all groundwater samples were labeled, preserved on ice, and kept under chain-of-custody protocol until received at the subcontract analytical laboratory. The samples were received by the laboratory in good condition with no QA/QC issues. Chain-of-custody forms are included in Attachment A. Residential well groundwater samples were analyzed for PCE, TCE, cis-1,2-DCE and vinyl chloride by USEPA Method 524. Residential groundwater samples were analyzed by Shealy Environmental Services, Inc., a South Carolina-certified laboratory located in West Columbia, South Carolina.

Results

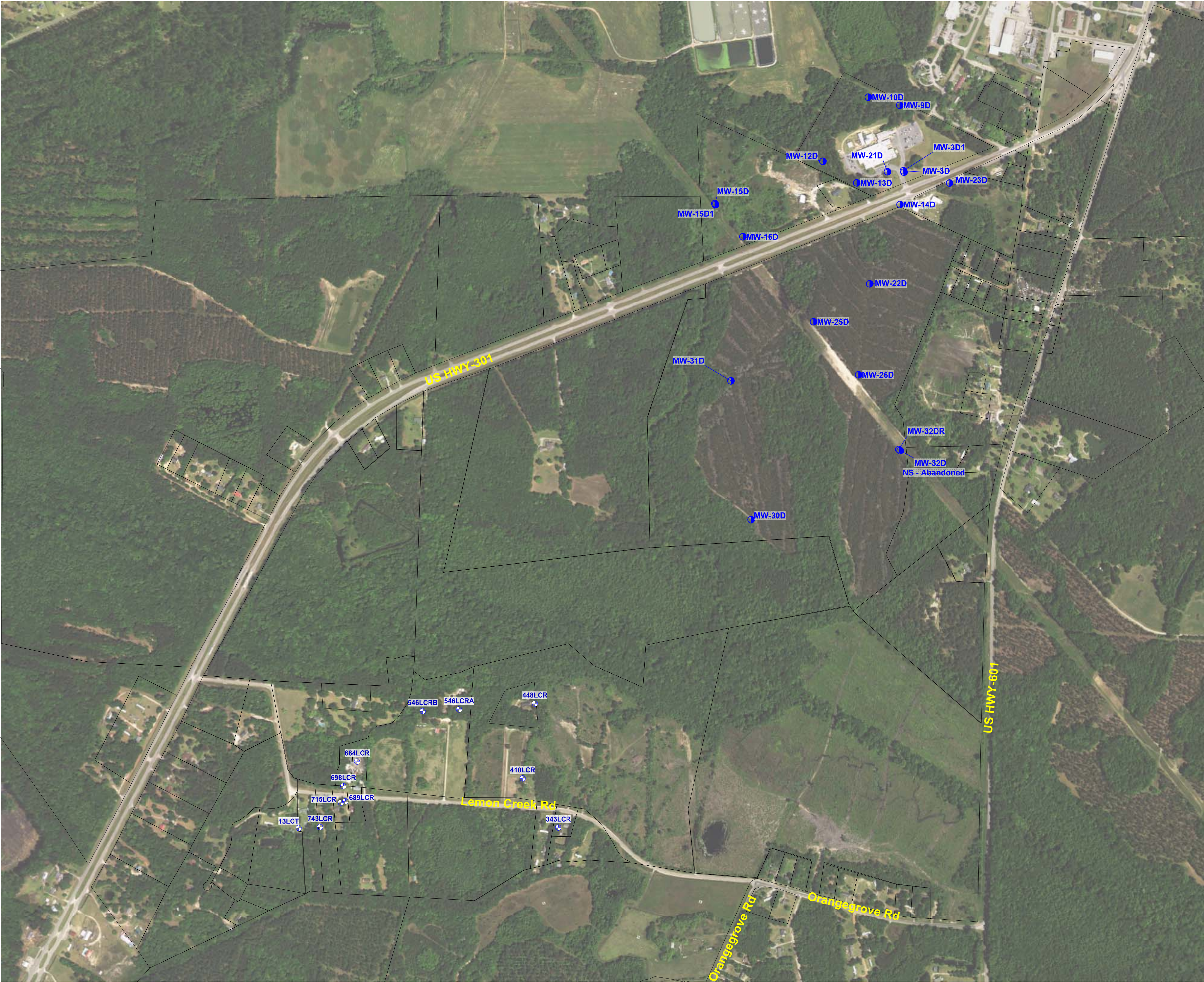
The laboratory analytical data package and data assessment report (DAR) are included as Attachments 2 and 3, respectively. A summary table of the sampling results is included as Table 1. A map of the Site vicinity illustrating the properties visited and residential sampling results along with the April 2019 PCE groundwater concentrations from site monitoring wells is included as Figure 2.

Groundwater samples were collected from 10 residential wells during the Spring 2019 monitoring event (Table 1 and Figure 2). PCE was detected in samples from 2 residential wells (689 LCR and 715 LCR,). Both of these PCE detections were low concentrations, significantly below the MCL for PCE (5 µg/L). No other compounds were detected in samples from residential wells in April 2019.

References

- AECOM, October 13, 2017. *Limestone Aquifer Assessment Work Plan, Delavan Spray Technologies Site, Bamberg, South Carolina.*
- AECOM, February 15, 2018. *Technical Memorandum – Residential Sampling Activities and Results, Delavan Spray LLC, Bamberg, South Carolina.*
- AECOM, June 4, 2018. *Technical Memorandum – Residential Sampling Activities and Results, Delavan Spray LLC, Bamberg, South Carolina.*
- AECOM, 2019. *Technical Memorandum - GAC Filter Installation Activities and Residential Well Sampling, Results, Delavan Spray LLC, Bamberg, South Carolina, VCC 13-4762-RP. January 15.*

Figures



LEGEND

689LCR

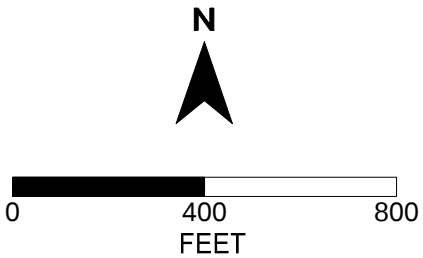
Well ID

Residential Well Sample Location

Deep Monitoring Well

Property Boundary

Notes:
µg/L - micrograms per liter
PCE - Tetrachloroethene
1) Residential well location 698 LCR was not sampled in April 2019 because the pump is not working at this location.



AECOM

10 Patewood Drive, Building 6, Suite 500
Greenville, SC 29615
T: (864) 234-2300 F: (864) 234-3069

Delavan Spray Technologies Site
Bamberg, South Carolina

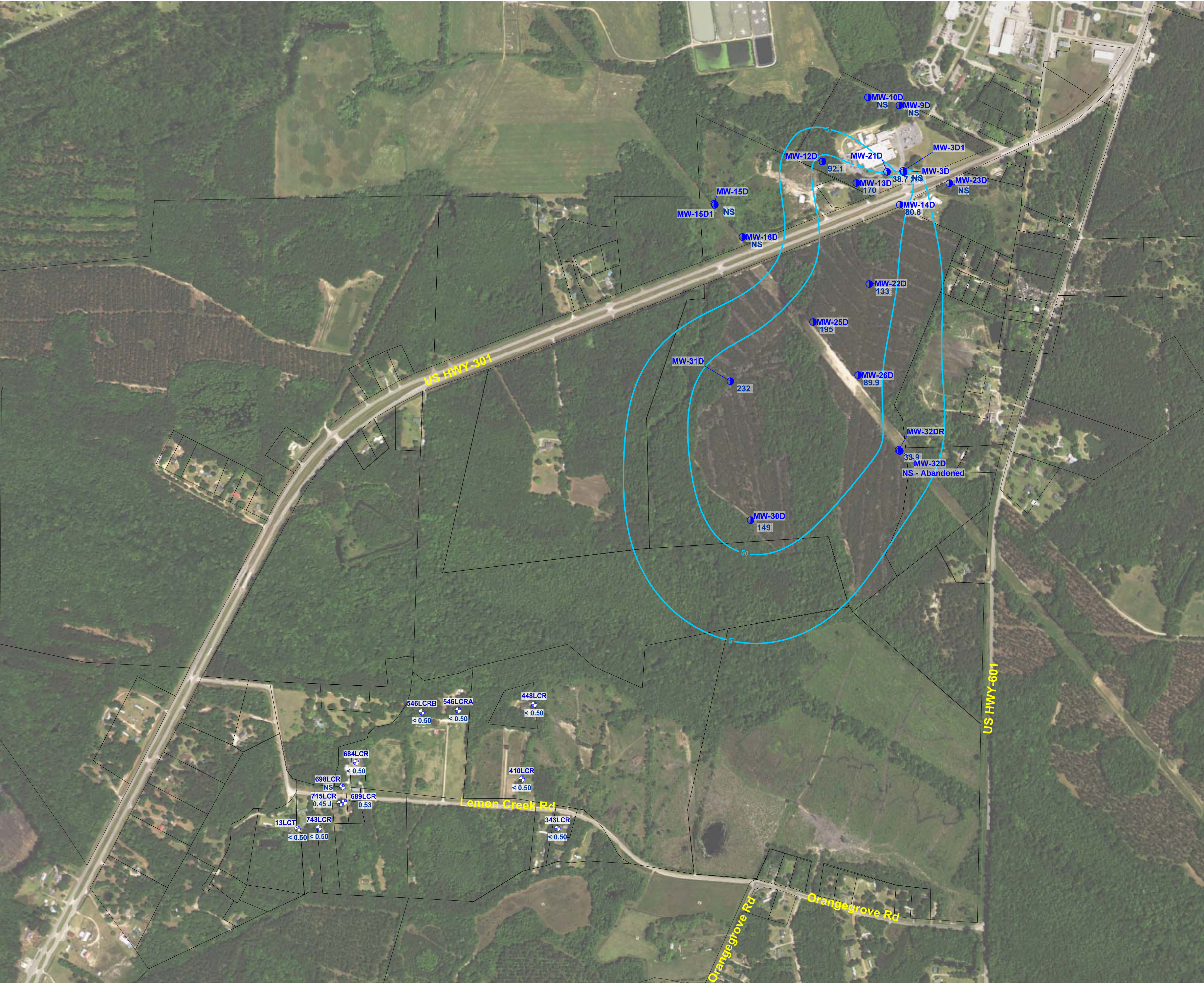
**Residential Well Sample
Location Map**

Project No.
60601883

Prepared by
L. Alexander

Date
June 2019

Figure 1



LEGEND

438BBR

Well Sample ID

Residential Well Sample Location

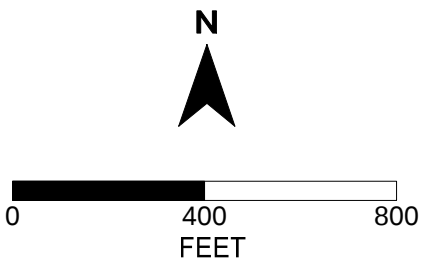
Deep Monitoring Well

Property Boundary

PCE Isoconcentration Contour - April 2019 (µg/L)

< 0.5 PCE Concentration - April 2019 (µg/L)

Notes:
µg/L - micrograms per liter
PCE - Tetrachloroethene
1) Location 698 LCR was not sampled in April 2019 because there is no power to the pump at this location.



AECOM

10 Patewood Drive, Building 6, Suite 500
Greenville, SC 29615
T: (864) 234-2300 F: (864) 234-3069

Delavan Spray Technologies Site
Bamberg, South Carolina

**PCE Concentrations in Residential
Groundwater Samples – June 2019**

Project No.
60601883

Prepared by
L. Alexander

Date
June 2019

Figure 2

Table

Table 1
Summary of Analytical Results for Residential Wells
Delavan Spray Technologies
Bamberg, South Carolina

Sample ID Date Collected	MCL	13 LCT 04/24/19	343 LCR 04/24/19	410 LCR-POST 04/24/19	410 LCR-PRE 04/24/19	448 LCR-POST 04/24/19	448 LCR-PRE 04/24/19	546 LCR-A-POST 04/24/19	546 LCR-A-PRE 04/24/19	546 LCR-B-POST 04/24/19
Volatile Organic Compounds by Method 524.2 (ug/L)										
cis-1,2-Dichloroethene	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample ID Date Collected	MCL	546 LCR-B-PRE 04/24/19	684 LCR-POST 04/24/19	684 LCR-PRE 04/24/19	689 LCR 04/24/19	715 LCR 04/24/19	743 LCR-POST 04/24/19	743 LCR-PRE 04/24/19	Trip Blank 04/24/19
Volatile Organic Compounds by Method 524.2 (ug/L)									
cis-1,2-Dichloroethene	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	< 0.5	< 0.5	< 0.5	0.53	0.45 J	< 0.5	< 0.5	< 0.5
Trichloroethene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Bold font indicates the analyte was detected.

J - Estimated concentration.

MCL - Maximum Contaminant Level (USEPA, March 2018).

Attachment 1
Field Documentation



1 of 2

~~60314964~~

60601833.02

LIMS Number:

Project Name / Location: Delavan Spray Technologies, Bamberg SC

Client Name: UTC

Collected by: Randy Morgan

Project Manager: Mark Hartford

Sample Analysis Requested

Quality Assurance Samples

COMMENTS

Cooler ID

*by USEPA drinking water method 524.2	
---------------------------------------	--

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)

Date Time

Received by (signed) _____

Date _____

Time

Delivered Directly to Lab:

Sample Delivery Details / Laboratory Receipt

XXXXX

Shipped:**Method of Shipment:**

Airbill #:

Analytical Lab

Shealy Environmental lab

Location:

West Columbia, sc

Lab Recipient:

Date: _____

Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 01-19-2004-01)

(92) 4-23-19 UTC Delavan

0640 leave for UTC Delavan
0710 arrive on site
0715 begin to calibrate YSI Pro Plus
S/N 5731 see log calibration Log
for details
0730 complete calibration
0745 sign in at office
0750 H + S briefing
0803 at MW-12D begin to purge w/
dedicated tubing Ph & Conductivity take
a while to stabilize ~ 1 hour
0910 Sampled MW-12D
0923 at MW-28 begin to micro purge
0955 Sampled MW-28
1005 at MW-27 begin to micro purge
1033 Sampled MW-27
1047 at MW-29 begin to micro purge
1120 Sampled MW-29
1133 at MW-13D begin to micro purge
1210 Sampled MW-13D
1215 empty purge water into drum
1225 purchase ice to pack samples to ship
1243 at MW-9 begin to micro purge
1320 Sampled MW-9 ms/msd
1338 at MW-3D begin to micro purge
4-23-2019 Randy Morgan

4-23-19 UTC Delavan

(93)

1410 Sampled MW 3D also ms/msd
pack cooler for Fed Ex to pickup
1452 at MW-3 begin to micro purge
1515 Sampled MW-3
* Trip Bank 4 Randy's cooler
* Trip Bank 3 Mariah's cooler
1545 Fed Ex arrive relinquish
samples to Fed Ex.
1600 Randy returns badge and leaves
site to check to see what it will
take to repair a GAC storage bldg
that came apart at 410 LCR. The
GAC system will have to be remove to
put bldg back together. Call Leslee
to inform her of this information.
1730 end of day.

Randy Morgan

4.23.19

4-24-19
(94)

UTC Delavan

0645 leave for UTC Delavan
0710 purchase ice for sample coolers
0716 on site calibrating YSI ProPlus
water quality meter s/n 3731
see calibration log for details
0736 complete calibration
0745 sign in & ^{receive} bridge
0800 at MW-16 ^{begin} to micro purge
0832 sampled MW-16
0852 at MW-7 begin to micro purge
0925 sampled MW-7
0930 at MW-24 begin to micro purge
1007 sampled MW-24
1015 empty purge water into steel drum
1025 collect IDW-1 from the (1)
drum we filled 100% this event
1040 returned badges to office sign out
1045 prepare to start Residential sampling
1100 drive by 13 LCT saw Mo. Hooper
out side - will begin here sampling
Turn on faucet at back of the house
at chain link fence - purge first
1105 sampled 13 LCT at faucet directly
1110 at 34B LCR No one home the
dog is chained and in fenced area
4-24-19 Randy Mergo

UTC Delavan

4-24-19 (95)

Purged ~~at~~ first before sampling
1115 collect sample from directly from
faucet.
1120 at 410 LCR
1125 collected 410 LCR-Pre out of
sample port at Tank #1
1130 collected 410 LCR-Post out of
sample port at Tank #2
The markings for these are on the back
of the bldg which at this time is on
the ground due to hurricane - 6 months
ago need professional to rebuild it.
1135 at 448 LCR spoke to Michele
Sanders earlier and the dogs are put up.
1140 at 448 LCR collect Pre sample
out of sample port on tank #1
1145 collect 448 LCR-Post out of
sample port on tank #2.
1150 at 546 LCR-A to collect sample
out of Tank #1 for 546 LCR-A-PRE
1155 collect sample 546 LCR-A-Post
out of Tank #2 sample port.
1205 at 546 LCR-B-Pre to collect
sample out of Tank #1 sample port.
1210 at 546 LCR-B-Post to collect
sample out of tank #2 sample port.
4-24-2019 Randy Mergo

4 (96) 4-24-2019 UTC Delavan

The doors to the bldg at 546 LCR-B were off and on the ground. I put them back on the bldg.

1225 at 684 LCR-PRE to collect sample out of tank #1 sample port

1230 at 684 LCR-Post to collect sample out of tank #2 sample port

No one was home at 684 LCR.

1240 at 689 LCR - the well had to be replaced and the pump house had to be removed causing the treatment system having to be disconnected from the well and not being reconnected.

No sampling of the treatment system
Lester Alexander said we could go ahead and sample the well directly

1250 at 715 LCR - this well is back in service and is the first time we have sampled this well.

1250 collected 715 LCR out of spigot at front of mobile home - purge first.

1255 back at 689 LCR to collect sample out of spigot at well head. The treatment system will be put back in operation soon in near future.

4-24-2019 Randy Mayo

UTC Delavan

4-24-2019

1300 at 743 LCR a new well pump house has been install - did not effect treatment system.

1305 collect 743 LCR-PRE out of tank #1 sample port

1310 collect 743 LCR-Post out of tank #2 sample port.

* 698 LCR is not in operation. The mobile home has been removed from the site at this time.

1320 take Mariah back to her truck at the UTC site.

1330 leave to go pick samples in Orangeburg SC and to complete CUC.

1535 relinquish samples to Shealy Environmental in West Columbia SC.

1545 ship samples from UTC wells Fed EX in Columbia SC.

1600 return to Greenville SC

1740 return equipment

1800 at AECOM office.

Randy Mayo
4-24-2019

S3NA-209-FM6

Customer UTC Delavan	Permit No.
Location Bamberg SC	Job No. 60601883
Description of Task Routine GW monitoring/sampling	Date 4-24-19

Basic Task Steps (explain how the task will be carried out)	Hazards (identify all hazards and potential hazards)	Risk (initial)	Precautions (describe how that hazard will be controlled)	Risk (final)	Initial
Enter site and navigate to well	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	MR
Complete 360° assessment of area	traffic/slips trips/biologicals	3	look for all types of hazards potentially present, use barricades/cones/etc.	1	MR
Open well	biologicals/cuts/abrasions	4	task specific tools and PPE, barriers as appropriate	1	MR
Set up equipment	ergonomics/pinch/cut/electrical	2	unload equipment and plan set-up, don't rush	1	MR
Begin purge	dermal contact/splash	2	control flow rate, PPE	1	MR
Record information/collect samples	dermal contact/splash/bottleware preservatives	3	control flow rate, PPE, inspect bottleware	1	MR
Break-down equipment & Decon	ergonomics/pinch/cut/electrical	2	disassemble equipment/package and secure, don't rush	1	MR
Close well	biologicals/cuts/abrasions	3	task specific tools and PPE, barriers as appropriate	1	MR
Exit well area	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	MR
			Highest Risk Index		

Review and attach to Tailgate Meeting as required. Number and attach additional pages if necessary.

Originator

Print Name

Signature

Worker/Visitor acknowledgement and review of this content on back of this document.

Supervisor

Print Name

Signature _____

Risk Matrix on Reverse

THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

NAME (Please Print)

SIGNATURE

I participated in the development and understand the content of this Task Hazard Assessment.

Mariah Rockwell mi Rockwell

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 - Critical	3 - Major	2 - Moderate	1 - Minor
5 - Frequent	25	20	15	10	5
4 - Probable	20	16	12	8	
3 - Occasional	15	12	8	6	
2 - Remote	10	8	6		
1 - Improbable	5				

Risk Rating (Probability x Severity)	Risk Acceptance Authority
6 to 9 (Medium)	Risk requires approval by Operations Lead Supervisor & Safety Manager
10 to 25 (High)	Risk requires the approval of the Operations Manager & Safety Director

Severity - Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Restricted Work	> \$10K to \$250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> \$1K to \$10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	<=\$1K USD	Small chemical release contained onsite	Individual complaint

Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

Emergency Meeting / Assembly Area

Emergency Contact #

911

Emergency Radio Channel

N/A

Area is safe and housekeeping completed at the end of task/shift.

Supervisor (print name)

Signature

Task Hazard Assessment (S3NA-209-FM6)

Revision 4 March 1, 2016

PRINTED COPIES ARE UNCONTROLLED. CONTROLLED COPY IS AVAILABLE ON COMPANY INTRANET.

VISITOR SIGN ON

NAME (Please Print)

SIGNATURE

TIME

[illegible]

Task Hazard Assessment Follow-Up/Review.

First Break

Initial

Lunch Break

Initial

Second Break

Initial

FIELD INSTRUMENT CALIBRATION LOG

Project Name: WTC Delavan
 Project Number: 1833-01
 Calibrated By: Randy Mudge
 Signature: Randy Mudge

YSI 556 SN: Pro Plus 3731
 Turbidity Meter Model/SN: _____
 Additional Equipment SN: _____
 Date: 4-24-2019

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance.

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	756.9		0716	mmHg
Temperature (Saturated Air)	17.1	17.5	0716	C
Temperature (Calibration Solution)	21.1	20.9	0736	C
DO	9.44	9.54	0716	mg/L
pH 7	7.14	7.02	0724	SU
pH 4	4.07	4.00	0728	SU
pH 10	10.07	10.05	0732	SU
Specific Conductance	1.28	1.28	0720	mS/cm
ORP	236.5	237.5	0736	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: <u>Yes</u> (circle one)	No
--	--	----



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies

Date: 4/24/19

Project Number: 60601883

Sampling Personnel: Randy Morgan / Mariah Rockwell

Sample Identification: 13 LCT

Conductivity (mS/cm): 0.219

Map Reference Number: NA

Temperature (°C): 19.7°

Time Sampling Began: 1 Time Sampling Ended: _____

ORP (mV): 185.0

Sampling Address: 13 Lauren Court

DO (mg/L): 7.16

Property Owners Name: Allen & Mary Hooker

Turbidity (NTU): 7.74

Property Owners Address (if different from sampling site):
NA

pH (s.u.): 6.17
Sample Time 1105

Renters Name (if Applicable): _____

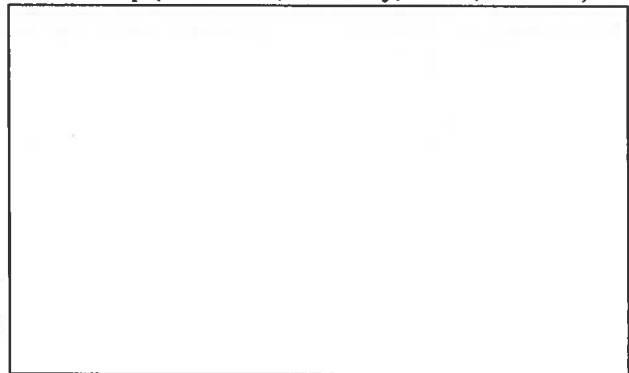
House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):

Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA



Location/Description of
Sampling Point:

Spigot at SW corner of the home

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

Container Description

Preservative

VOCs by EPA Method 524.2

3 x 40 ml glass vials

HCl

Remarks: _____

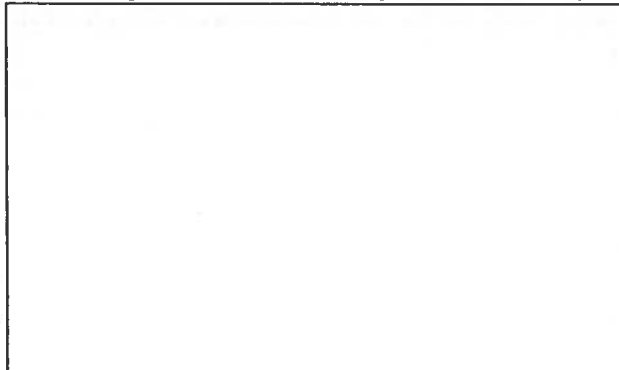


RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariah Rockwell
Sample Identification: 343 LCR Conductivity (mS/cm): 0.233
Map Reference Number: NA Temperature (°C): 18.9°
Time Sampling Began: _____ Time Sampling Ended: _____ ORP (mV): 179.2
Sampling Address: 343 Lemon Creek Road DO (mg/L): 6.85
Property Owners Name: Robert Jamison Turbidity (NTU): 4.52
Property Owners Address (if different from sampling site):
NA pH (s.u.): 6.79
Sample time @ 1115
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Location/Description of
Sampling Point: Spigot South side of the home

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: * Dog needs to be put in secured area while sampling
Call first 803-614-8885



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies

Date: 4-24-2019

Project Number: 60601883

Sampling Personnel: Randy Morgan / Manah Rockwell

Sample Identification: 410 LCR-PRE

Conductivity (mS/cm): PRE 0.234

POST 0.231

Map Reference Number: NA

Temperature (°C): 20.1

19.9

Time Sampling Began: _____

Time Sampling Ended: _____

ORP (mV): 204.0

201.1

Sampling Address: 410 Lemon Creek Road

DO (mg/L): 4.87

3.40

Property Owners Name: David & Jess Cooler

Turbidity (NTU): 4.81

4.70

Property Owners Address (if different from sampling site):

pH (s.u.): 7.04

7.02

NA

Sample Time @ 1125 @ 1130

Renters Name (if Applicable): _____

House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):

Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Location/Description of
Sampling Point: Pre - Tank #1 Raw water sample port

Evacuation Method: Post - Tank #2

Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: Filter Bldg is still not repaired - will need GAC system removed to replace the bldg.



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies

Date: 4-24-19

Project Number: 60601883

Sampling Personnel: Randy Migan / Moriah Rockwell

Sample Identification: 448 LCR- PRE

Conductivity (mS/cm): PRE 0.227 POST 0.229

Map Reference Number: NA

Temperature (°C): 18.8 18.6

Time Sampling Began: _____ Time Sampling Ended: _____

ORP (mV): 192.3 198.4

Sampling Address: 448 Lemon Creek Road

DO (mg/L): 6.22 5.21

Property Owners Name: Michelle Sanders

Turbidity (NTU): 1.69 4.11

Property Owners Address (if different from sampling site):

NA

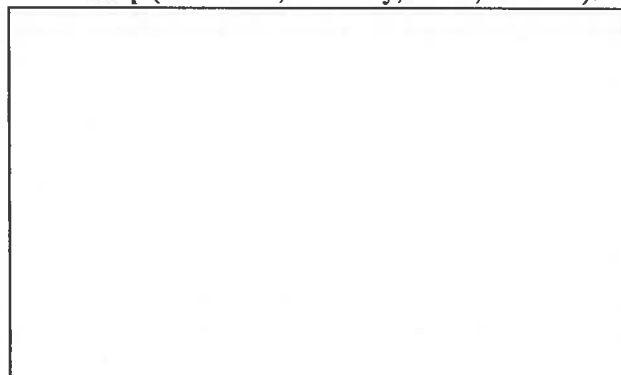
pH (s.u.): 7.34 7.24
Sample Time @ 1140 @ 1145

Renters Name (if Applicable): _____

House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available):

NA

Description of pump,
pressure tank, water
treatment, etc.

NA

Location/Description of
Sampling Point:

PRE- Tank # 1 Raw Water Sample part
POST Tank # 2

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks:

* Call first needs to have log put in secure area
while sampling



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies Date: 4.24.19
Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariah Rockwell
Sample Identification: 546 LCR-A-PRE PRE POST
Map Reference Number: NA Conductivity (mS/cm): 0.223 0.225
Time Sampling Began: _____ Time Sampling Ended: _____ Temperature (°C): 19.5 19.7
Sampling Address: 546 Lemon Creek Road ORP (mV): 190.1 199.4
Property Owners Name: Don Kirby DO (mg/L): 5.60 3.03
Property Owners Address (if different from sampling site): NA Turbidity (NTU): 0.84 0.61
pH (s.u.): 7.44 7.42
Sample Time 1150 1155
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available):

NA

Description of pump,
pressure tank, water
treatment, etc.

NA

Location/Description of
Sampling Point:

PRE - Tank #1 Raw water
POST - Tank #2

Evacuation Method:

Purge Time:

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks:

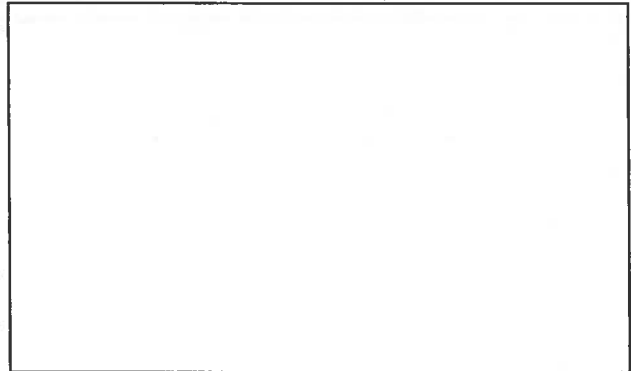


RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Martel Rakwell
Sample Identification: 546 LCR-B-PRE PRE POST
546 LCR-B-POST Conductivity (mS/cm): 0.229 0.224
Map Reference Number: NA Temperature (°C): 20.4° 21.6°
Time Sampling Began: _____ Time Sampling Ended: _____ ORP (mV): 186.7 191.8
Sampling Address: 546 Lemon Creek Road DO (mg/L): 2.20 4.03
Property Owners Name: Don Kirby Turbidity (NTU): 1.13 1.28
Property Owners Address (if different from sampling site): NA pH (s.u.): 7.22 7.13
Sample Time 1205 1210
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Location/Description of
Sampling Point: PRE - Tank # 1 Raw water
POST - Tank # 2

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

Container Description

Preservative

VOCs by EPA Method 524.2

3 x 40 ml glass vials

HCl

Remarks: _____



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019

Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariah Rackwell

Sample Identification: 684 LCR - PRE 684 LCR POST

Map Reference Number: NA

Time Sampling Began: _____ Time Sampling Ended: _____

Sampling Address: 684 Lennon Creek Road

Property Owners Name: Ernie Carroll

Property Owners Address (if different from sampling site):
NA

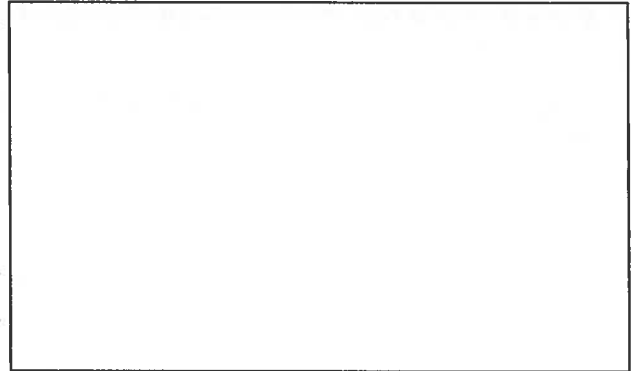
Renters Name (if Applicable): _____

House Construction Type: _____

	<u>PRE</u>	<u>POST</u>
Conductivity (mS/cm):	<u>0.220</u>	<u>0.220</u>
Temperature (°C):	<u>20.8</u>	<u>21.1</u>
ORP (mV):	<u>169.8</u>	<u>176.7</u>
DO (mg/L):	<u>5.21</u>	<u>4.10</u>
Turbidity (NTU):	<u>0.53</u>	<u>1.67</u>
pH (s.u.):	<u>7.53</u>	<u>7.49</u>
Sample Time	<u>@1225</u>	<u>@1230</u>

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Location/Description of
Sampling Point: PRE - Tank #1 Raw Water
POST - Tank #2

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: _____



system out of service
sampled well pump only

RESIDENTIAL WATER WELL SAMPLING LOG

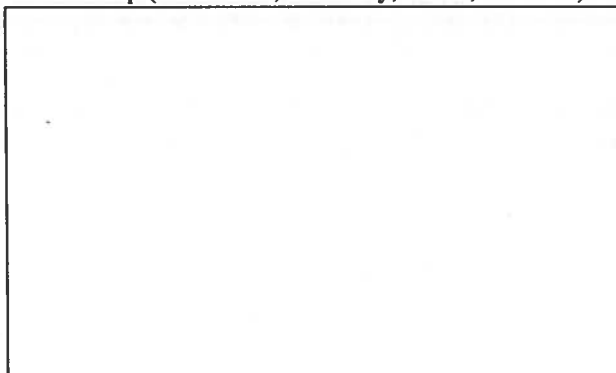
Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Martha Rockwell
Sample Identification: 689 LCR - PRE Conductivity (mS/cm): 0.221
689 LCR - POST Temperature (°C): 18.9°
Map Reference Number: NA ORP (mV): 198.9
Time Sampling Began: _____ Time Sampling Ended: _____ DO (mg/L): 5.82
Sampling Address: 689 Lemon Creek Road Turbidity (NTU): 1.12
Property Owners Name: Martha Clayton Benfield pH (s.u.): 7.37
Property Owners Address (if different from sampling site): Sample Time @ 1255
NA
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Sketch Map (show road, driveway, house, and well):



Location/Description of
Sampling Point:

PRE - Tank #1
POST - Tank #2

only 1 sample, taken directly from well

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

Container Description

Preservative

VOCs by EPA Method 524.2

3 x 40 ml glass vials

HCl

Remarks:

GAC system has been cut loose from pump
and will need to be reinstalled



Out of Service
No Sample

RESIDENTIAL WATER WELL SAMPLING LOG

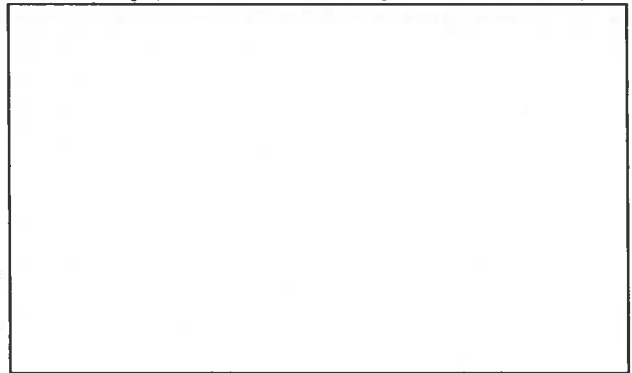
Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariah Rackwell
Sample Identification: 698 LCR-PRE Conductivity (mS/cm): PRE POST
698 LCR-POST
Map Reference Number: NA Temperature (°C): _____
Time Sampling Began: _____ Time Sampling Ended: _____ ORP (mV): _____
Sampling Address: 698 Lemon Creek Road DO (mg/L): _____
Property Owners Name: Ernie Carroll Turbidity (NTU): _____
Property Owners Address (if different from sampling site): _____ pH (s.u.): _____
NA Sample Time
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Sketch Map (show road, driveway, house, and well):



Location/Description of Sampling Point: PRE-
POST-
Evacuation Method: _____
Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: _____



RESIDENTIAL WATER WELL SAMPLING LOG

Project Name: UTAS Delavan Spray Technologies Date: 4.24.2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariah Rockwell
Sample Identification: 715 LCR Conductivity (mS/cm): 0.222
Map Reference Number: NA Temperature (°C): 19.8
Time Sampling Began: _____ Time Sampling Ended: _____ ORP (mV): 185.9
Sampling Address: 715 Lemon Creek Road DO (mg/L): 8.60
Property Owners Name: _____ Turbidity (NTU): 1.63
Property Owners Address (if different from sampling site):
NA pH (s.u.): 7.74
Sample Time @ 1250 @ 1255 Mr.
Renters Name (if Applicable): _____
House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):

Well Construction
Specifications (attach
well log if available):

NA

Description of pump,
pressure tank, water
treatment, etc.

NA

Location/Description of
Sampling Point:

Evacuation Method:

Purge Time:

Spigot @ front (North) side of trailer

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: _____



RESIDENTIAL WATER WELL SAMPLING LOG

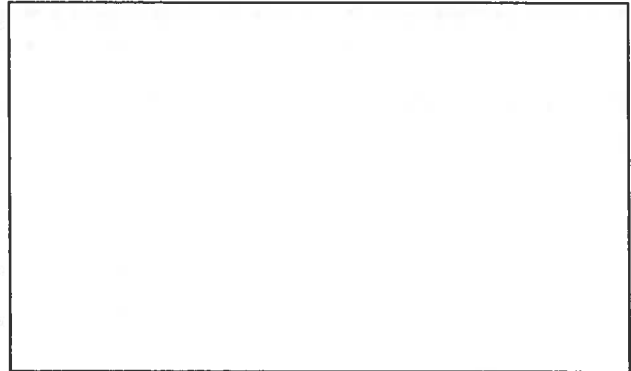
Project Name: UTAS Delavan Spray Technologies Date: 4-24-2019
Project Number: 60601883 Sampling Personnel: Randy Morgan / Mariak Rockwell
Sample Identification: 743 LCR - PRE Conductivity (mS/cm): PRE 0.215 POST 0.215
743 LCR - POST Temperature (°C): 19.4 19.4
Map Reference Number: NA ORP (mV): 190.6 211.8
Time Sampling Began: _____ Time Sampling Ended: _____ DO (mg/L): 6.00 5.62
Sampling Address: 743 Lemon Creek Road Turbidity (NTU): 4.36 2.01
Property Owners Name: Raymond Taylor pH (s.u.): 7.78 7.58
Property Owners Address (if different from sampling site): NA Sample Time @ 1305 @ 1310

Renters Name (if Applicable): _____

House Construction Type: _____

Well Location Description: _____

Sketch Map (show road, driveway, house, and well):



Well Construction
Specifications (attach
well log if available): NA

Description of pump,
pressure tank, water
treatment, etc. NA

Location/Description of
Sampling Point: PRE - Tank #1 Raw water
POST - Tank #2

Evacuation Method: _____

Purge Time: _____

Analytical Test Method

VOCs by EPA Method 524.2

Container Description

3 x 40 ml glass vials

Preservative

HCl

Remarks: _____

Attachment 2
Laboratory Analytical Report

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

AECOM

10 Patewood Drive
Building 6, Suite 500
Greenville, SC 29615
Attention: Doria Cullom

Project Name: Delvan Spray Technologies, Bamberg SC

Project Number: 60601833.02

Lot Number: **UD24087**

Date Completed: 05/07/2019

N. Saikaly

05/08/2019 2:35 PM

Approved and released by:
Project Manager: Nisreen Saikaly



The electronic signature above is the equivalent of a handwritten signature.
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Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: UD24087

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: UD24087

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	13 LCT	Aqueous	04/24/2019 1105	04/24/2019
002	343 LCR	Aqueous	04/24/2019 1115	04/24/2019
003	410 LCR-PRE	Aqueous	04/24/2019 1125	04/24/2019
004	410 LCR-POST	Aqueous	04/24/2019 1130	04/24/2019
005	448 LCR-PRE	Aqueous	04/24/2019 1140	04/24/2019
006	448 LCR-POST	Aqueous	04/24/2019 1145	04/24/2019
007	546 LCR-A-PRE	Aqueous	04/24/2019 1150	04/24/2019
008	546 LCR-A-POST	Aqueous	04/24/2019 1155	04/24/2019
009	546 LCR-B-PRE	Aqueous	04/24/2019 1205	04/24/2019
010	546 LCR-B-POST	Aqueous	04/24/2019 1210	04/24/2019
011	684 LCR-PRE	Aqueous	04/24/2019 1225	04/24/2019
012	684 LCR-POST	Aqueous	04/24/2019 1230	04/24/2019
013	715 LCR	Aqueous	04/24/2019 1250	04/24/2019
014	689 LCR	Aqueous	04/24/2019 1255	04/24/2019
015	743 LCR-PRE	Aqueous	04/24/2019 1305	04/24/2019
016	743 LCR-POST	Aqueous	04/24/2019 1310	04/24/2019
017	Trip Blank	Aqueous	04/24/2019	04/24/2019

(17 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Detection Summary

AECOM

Lot Number: UD24087

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
013	715 LCR	Aqueous	Tetrachloroethene	524.2	0.45	J	ug/L	17
014	689 LCR	Aqueous	Tetrachloroethene	524.2	0.53		ug/L	18

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-001
Description: 13 LCT	Matrix: Aqueous
Date Sampled: 04/24/2019 1105	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1402	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		98	70-130					
1,2-Dichlorobenzene-d4		97	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Shealy Environmental Services, Inc.
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-002
Description: 343 LCR	Matrix: Aqueous
Date Sampled: 04/24/2019 1115	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1428	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		93	70-130					
1,2-Dichlorobenzene-d4		99	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-003
Description: 410 LCR-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1125	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1453	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		94	70-130					
1,2-Dichlorobenzene-d4		100	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-004
Description: 410 LCR-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1130	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1518	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		95	70-130					
1,2-Dichlorobenzene-d4		97	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-005
Description: 448 LCR-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1140	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1543	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		91	70-130					
1,2-Dichlorobenzene-d4		95	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-006
Description: 448 LCR-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1145	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1609	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		97	70-130					
1,2-Dichlorobenzene-d4		98	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-007
Description: 546 LCR-A-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1150	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1634	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		89	70-130
1,2-Dichlorobenzene-d4		93	70-130

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-008
Description: 546 LCR-A-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1155	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1659	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		95	70-130					
1,2-Dichlorobenzene-d4		102	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-009
Description: 546 LCR-B-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1205	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1729	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		93	70-130					
1,2-Dichlorobenzene-d4		101	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-010
Description: 546 LCR-B-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1210	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1753	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		89	70-130					
1,2-Dichlorobenzene-d4		95	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-011
Description: 684 LCR-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1225	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1819	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		90	70-130
1,2-Dichlorobenzene-d4		93	70-130

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-012
Description: 684 LCR-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1230	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1844	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		93	70-130					
1,2-Dichlorobenzene-d4		103	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-013
Description: 715 LCR	Matrix: Aqueous
Date Sampled: 04/24/2019 1250	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1909	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	0.45	J	0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		91	70-130					
1,2-Dichlorobenzene-d4		94	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-014
Description: 689 LCR	Matrix: Aqueous
Date Sampled: 04/24/2019 1255	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 1935	BWS		15649

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	0.53		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichlorobenzene-d4		94	70-130

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-015
Description: 743 LCR-PRE	Matrix: Aqueous
Date Sampled: 04/24/2019 1305	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 2344	STM		15669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		87	70-130					
1,2-Dichlorobenzene-d4		94	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-016
Description: 743 LCR-POST	Matrix: Aqueous
Date Sampled: 04/24/2019 1310	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/04/2019 0009	STM		15669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits					
Bromofluorobenzene		89	70-130					
1,2-Dichlorobenzene-d4		97	70-130					

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: UD24087-017
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 04/24/2019	
Date Received: 04/24/2019	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	524.2	524.2	1	05/03/2019 2318	STM		15669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,2-Dichloroethene	156-59-2	524.2	ND		0.50	0.40	ug/L	1
Tetrachloroethene	127-18-4	524.2	ND		0.50	0.40	ug/L	1
Trichloroethene	79-01-6	524.2	ND		0.50	0.40	ug/L	1
Vinyl chloride	75-01-4	524.2	ND		0.50	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		91	70-130
1,2-Dichlorobenzene-d4		96	70-130

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

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QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ15649-001

Matrix: Aqueous

Batch: 15649

Prep Method: 524.2

Analytical Method: 524.2

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 1117
Tetrachloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 1117
Trichloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 1117
Vinyl chloride	ND		1	0.50	0.40	ug/L	05/03/2019 1117
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		97	70-130				
1,2-Dichlorobenzene-d4		99	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and $\geq$ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ15649-002

Matrix: Aqueous

Batch: 15649

Prep Method: 524.2

Analytical Method: 524.2

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	5.0	5.0		1	100	70-130	05/03/2019 1007
Tetrachloroethene	5.0	5.0		1	100	70-130	05/03/2019 1007
Trichloroethene	5.0	5.1		1	103	70-130	05/03/2019 1007
Vinyl chloride	5.0	5.5		1	111	70-130	05/03/2019 1007
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		102	70-130				
1,2-Dichlorobenzene-d4		103	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and $\geq$ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ15669-001

Matrix: Aqueous

Batch: 15669

Prep Method: 524.2

Analytical Method: 524.2

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 2238
Tetrachloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 2238
Trichloroethene	ND		1	0.50	0.40	ug/L	05/03/2019 2238
Vinyl chloride	ND		1	0.50	0.40	ug/L	05/03/2019 2238
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		92	70-130				
1,2-Dichlorobenzene-d4		96	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and $\geq$ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ15669-002

Matrix: Aqueous

Batch: 15669

Prep Method: 524.2

Analytical Method: 524.2

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	5.0	4.0		1	81	70-130	05/03/2019 2201
Tetrachloroethene	5.0	4.0		1	79	70-130	05/03/2019 2201
Trichloroethene	5.0	3.9		1	79	70-130	05/03/2019 2201
Vinyl chloride	5.0	4.8		1	97	70-130	05/03/2019 2201
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichlorobenzene-d4		104	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and $\geq$ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody and Miscellaneous Documents

Chain of Custody and Analytical Request									
AECOM Project Name / Location: Delavan Spray Technologies, Bamberg SC Client Name: UTC Project Manager: Mark Hartford Collected by: Randy Morgan									
Sample ID	Date Collected (dd-mm-yyyy)	Time Collected (Military) (hh:mm)	Site Comments	Sample Information	COPE	GRAB	Well	Sample Information	Project Manager: Mark Hartford
13 LCT	24-Apr-2019	1105		Drinking water		X	X		
343 LCR	24-Apr-2019	1115				X	X		
410 LCR-PRE	24-Apr-2019	1125				X	X		
410 LCR-POST	24-Apr-2019	1130				X	X		
448 LCR-PRE	24-Apr-2019	1140				X	X		
448 LCR-POST	24-Apr-2019	1145				X	X		
546 LCR-A-PRE	24-Apr-2019	1150				X	X		
546 LCR-A-POST	24-Apr-2019	1155				X	X		
546 LCR-B-PRE	24-Apr-2019	1205				X	X		
546 LCR-B-POST	24-Apr-2019	1210				X	X		
684 LCR-PRE	24-Apr-2019	1225				X	X		
684 LCR-POST	24-Apr-2019	1230				X	X		
715 LCR	24-Apr-2019	1250				X	X		
689 LCR	24-Apr-2019	1255				X	X		
743 LCR-PRE	24-Apr-2019	1305				X	X		
Chain of Custody Signature: <i>Randy Morgan</i> Date: 4-24-19 1535 Custody Transfer Prior to Receipt by Laboratory Received by (signature): <i>[Signature]</i> Date: 4-24-19 1535									

1. Chain of Custody Number = date collected + custody number (e.g. 01-19-2001-01)

52745 column project control sample from Blank CXX

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: AECOM

Cooler Inspected by/date: ETB / 4/24/19

Lot #: UD24087

Means of receipt: ☐ SESI ☒ Client ☐ UPS ☐ FedEx ☐ Other: _____	
☐ Yes ☒ No	1. Were custody seals present on the cooler?
☐ Yes ☐ No ☒ NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
2.1 / 2.1 °C NA / NA °C NA / NA °C NA / NA °C	
Method: ☒ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C	
Method of coolant: ☒ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None	
☐ Yes ☐ No ☒ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes ☐ No ☒ NA	4. Is the commercial courier's packing slip attached to this form?
☒ Yes ☐ No	5. Were proper custody procedures (relinquished/received) followed?
☒ Yes ☐ No	6. Were sample IDs listed on the COC?
☒ Yes ☐ No	7. Were sample IDs listed on all sample containers?
☒ Yes ☐ No	8. Was collection date & time listed on the COC?
☒ Yes ☐ No	9. Was collection date & time listed on all sample containers?
☒ Yes ☐ No	10. Did all container label information (ID, date, time) agree with the COC?
☒ Yes ☐ No	11. Were tests to be performed listed on the COC?
☒ Yes ☐ No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☒ Yes ☐ No	13. Was adequate sample volume available?
☒ Yes ☐ No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes ☒ No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes ☒ No ☐ NA	16. For VOA and RSK-175 samples, were bubbles present > "pea-size" (½" or 6mm in diameter) in any of the VOA vials?
☐ Yes ☐ No ☒ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes ☐ No ☒ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes ☐ No ☒ NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes ☐ No ☒ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes ☒ No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles > 6 mm in diameter.	
Sample(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA.	
SR barcode labels applied by: ETB Date: 4/24/19	

Comments:

Attachment 3
Data Assessment Report

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, January 2017). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update IV* (USEPA, February 2007) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package UD24087 were collected on April 24, 2019 for the Delavan Spray Technologies located in Bamberg, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash “/” and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Select Volatile Organic Compounds by 524.2

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), January 2017. *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*. Publication #EPA-540-R-2017-002.

United States Environmental Protection Agency (USEPA), February 2007. *Test Methods for Evaluating Solid Waste (SW-846)*, Update IV.

APPENDIX B

FIELD DOCUMENTATION

Water Level Data Summary

Task Hazard Assessments

Equipment Calibration Logs

Chain-of-Custody Forms

Field Data Information Logs for Groundwater Sampling

IDW Management Form

Daily Logbook Entries

WATER LEVEL DATA SUMMARY

PROJECT: UTC Delavan Spray Technologies Site

JOB NUMBER: 60578249.01

LOCATION: Bamberg, South Carolina

DATE: 4/22/19

CLIENT: UTC

MEASURED BY: Randy Morgan

SURVEY DATUM:

MEASURING DEVICE: Electronic Water Level Indicator

MEASUREMENT POINT IDENTIFICATION	TOC ELEVATION (FT MSL)	DEPTH TO BOTTOM OF WELL (FT BTOC)	POINT OF MEASURE	DEPTH TO WATER (FT BTOC)	COMMENTS
1303 MW-1				11.71	
1301 MW-2				11.15	
1307 MW-3				13.24	
1306 MW-3D				13.91	
1305 MW-3D1				13.71	
1412 MW-4				7.07	
1314 MW-5				7.55	
1312 MW-6				5.03	
1308 MW-7				13.29	
1311 MW-8				10.81	
1253 MW-9				5.32	
1248 MW-9D				9.39	
1244 MW-10				7.46	
1242 MW-10D				7.21	
1237 MW-11	7.13			7.13	
1323 MW-12D				13.47	
1320 MW-13D				12.20	
1404 MW-14				11.27	
1405 MW-14D				12.86	
1515 MW-15				3.12	
1523 MW-15D				2.10	
1525 MW-15D1				2.23	
1331 MW-16				3.11	
1338 MW-16D				4.98	
1419 MW-17				3.14	
1410 MW-18				9.86	

Notes:

BTOC - Below Top of Casing

MSL - Mean Sea Level

TOC - Top of Casing

LLMH - Lower Lip of Man Hole

S3NA-209-FM6

Customer UTC Delavan	Permit No.
Location Bamberg SC	Job No. 60601883
Description of Task Routine GW monitoring/sampling	Date 04/22/2019

Basic Task Steps (explain how the task will be carried out)	Hazards (identify all hazards and potential hazards)	Risk (initial)	Precautions (describe how that hazard will be controlled)	Risk (final)	Initials
Enter site and navigate to well	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	NK
Complete 360° assessment of area	traffic/slips trips/biologicals	3	look for all types of hazards potentially present, use barricades/cones/etc.	1	NK
Open well	biologicals/cuts/abrasions	4	task specific tools and PPE, barriers as appropriate	1	NK
Set up equipment	ergonomics/pinch/cut/electrical	2	unload equipment and plan set-up, don't rush	1	NK
Begin purge	dermal contact/splash	2	control flow rate, PPE	1	NK
Record information/collect samples	dermal contact/splash/bottleware preservatives	3	control flow rate, PPE, inspect bottleware	1	NK
Break-down equipment & Decon	ergonomics/pinch/cut/electrical	2	disassemble equipment/package and secure, don't rush	1	NK
Close well	biologicals/cuts/abrasions	3	task specific tools and PPE, barriers as appropriate	1	NK
Exit well area	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	NK
			Highest Risk Index		

Originator

Print Name _____

Signature

Supervisor

Print Name

Signature _____

THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

NAME (Please Print)

SIGNATURE

I participated in the development and understand the content of this Task Hazard Assessment.

Maniah Rockwell

[Signature]

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 - Critical	3 - Major	2 - Moderate	1 - Minor
5 - Frequent	25	20	16	10	5
4 - Probable	20	16	12	8	
3 - Occasional	15	12	9	6	
2 - Remote	10	8	6		
1 - Improbable	5				

Risk Rating (Probability x Severity)	Risk Acceptance Authority
5 to 9 (Medium)	Risk requires approval by Operations Lead/Supervisor's Safety Manager
10 to 25 (High)	Risk requires the approval of the Operations Manager & Safety Director

Severity - Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Resigned Work	> \$10K to \$250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> \$1K to \$10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	<=\$1K USD	Small chemical release contained onsite	Individual complaint

Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

VISITOR SIGN ON

NAME (Please Print)

SIGNATURE

TIME

Task Hazard Assessment Follow-Up/Review.

First Break

Initial

Lunch Break

Initial

Second Break

Initial

Emergency Meeting / Assembly Area

Emergency Contact #

911

Emergency Radio Channel

N/A

Area is safe and housekeeping completed at the end of task/shift.

Supervisor

(print name)

Signature

[Signature]

Americas

Task Hazard Assessment

S3NA-209-FM6

Customer UTC Delavan	Permit No.
Location Bamberg SC	Job No. 60601883
Description of Task Routine GW monitoring/sampling	Date 4-23-19

Basic Task Steps (explain how the task will be carried out)	Hazards (identify all hazards and potential hazards)	Risk (initial)	Precautions (describe how that hazard will be controlled)	Risk (final)	Initials
Enter site and navigate to well	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	Rm
Complete 360° assessment of area	traffic/slips trips/biologicals	3	look for all types of hazards potentially present, use barricades/cones/etc.	1	Rm
Open well	biologicals/cuts/abrasions	4	task specific tools and PPE, barriers as appropriate	1	Rm
Set up equipment	ergonomics/pinch/cut/electrical	2	unload equipment and plan set-up, don't rush	1	Rm
Begin purge	dermal contact/splash	2	control flow rate, PPE	1	Rm
Record information/collect samples	dermal contact/splash/bottleware preservatives	3	control flow rate, PPE, inspect bottleware	1	Rm
Break-down equipment & Decon	ergonomics/pinch/cut/electrical	2	disassemble equipment/package and secure, don't rush	1	Rm
Close well	biologicals/cuts/abrasions	3	task specific tools and PPE, barriers as appropriate	1	Rm
Exit well area	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	Rm
Highest Risk Index					

Review and attach to Tailgate Meeting as required. Number and attach additional pages if necessary.

Worker/visitor acknowledgement and review of this content on back of this document.

Originator

Print Name

Signature

Supervisor

Print Name

Signature

Risk Matrix on Reverse

THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

NAME (Please Print)

SIGNATURE

I participated in the development and understand the content of this Task Hazard Assessment.

Mariah Rodwell 212111

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 - Critical	3 - Major	2 - Moderate	1 - Minor
5 - Frequent	25	20	15	10	5
4 - Probable	20	15	12	8	
3 - Occasional	15	12	9	6	
2 - Remote	10	8	6		
1 - Improbable	5				

Risk Rating (Probability x Severity)	Risk Acceptance Authority
6 to 9 (Medium)	Risk requires approval by Operations Lead/Supervisor & Safety Manager
10 to 25 (High)	Risk requires the approval of the Operations Manager & Safety Director

	Severity – Potential Consequences			
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
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Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

Emergency Meeting / Assembly Area

Emergency Contact #

911

Emergency Radio Channel

N/A

Area is safe and housekeeping completed at the end of task/shift.

Supervisor

Signature

Task Hazard Assessment (S3NA-209-FM6)

Revision 4 March 1, 2016

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VISITOR SIGN ON

NAME (Please Print)

SIGNATURE

TIME

Task Hazard Assessment Follow-Up/Review.

First Break

Initial

Lunch Break

Initial

Second Break

Initial

AECOM

Tailgate Safety Meeting Log*

This sign-in log documents the topics of the tailgate safety briefing and individual attendance at the briefing. Personnel who perform work operations onsite are required to attend each safety briefing and acknowledge their ability to ask questions and receipt of such briefings daily. Please provide a brief narrative of the following topics as applicable to the Project.

Meeting Leader <i>Mariah Rockwell</i>	Signature <i>Mi Pull</i>
--	-----------------------------

Date /Time <i>4 / 23 / 19</i>	Project Name & Location UTC Delavan Spray Technologies Site RI Bamberg, South Carolina
----------------------------------	--

Weather Conditions <i>sunny mid-80's</i>	Project Number 60314964
---	----------------------------

Topic	Discussion (Circle one)
Today's Scope of Work (All tasks)	☒ yes / ☐ NA
Schedule / New Work / Scope Changes	☒ yes / ☐ NA
Reviewed Procedures, THA, etc.	☒ yes / ☐ NA
Emergency Action Plan & Procedures	☒ yes / ☐ NA
Communications Protocol	☒ yes / ☐ NA
Required PPE	☒ yes / ☐ NA
Required Monitoring / Instruments	☒ yes / ☐ NA
Site Control / Work Zones / Security	☒ yes / ☐ NA
Access / Egress / Slips, Trips, & Falls	☒ yes / ☐ NA
Smoking, Eating, & Drinking	☒ yes / ☐ NA
Washroom / Facilities Location	☒ yes / ☐ NA
Heat/Cold Stress	<i>very hot</i> ☒ yes / ☐ NA
Exclusion Areas Barricades / Cones	☒ yes / ☐ NA
Required Permits, Passes, Keys, etc.	☒ yes / ☐ NA
Decon Procedures / IDW Mngmt	☒ yes / ☐ NA
Equipment Inspections / Safety Checklists	☒ yes / ☐ NA

Comments/Other: Cardinal Rules: Confined Space (), GFCI (), Elevated Work (), Lockout/Tagout (), and Machine Guarding (). No loose/leather gloves near rotating equipment.

Tailgate Meeting Attendees	
Printed Name	Signature
<i>Mariah Rockwell</i>	<i>Mi Pull</i>
<i>Randy Morgan</i>	<i>Randy Morgan</i>

*This form is to be utilized for documenting daily safety meetings and stored with project files upon completion

S3NA-209-FM6

Customer UTC Delavan	Permit No.
Location Bamberg SC	Job No. 60601883
Description of Task Routine GW monitoring/sampling	Date 4-24-19

Basic Task Steps (explain how the task will be carried out)	Hazards (identify all hazards and potential hazards)	Risk (initial)	Precautions (describe how that hazard will be controlled)	Risk (final)	Initial
Enter site and navigate to well	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	MR
Complete 360° assessment of area	traffic/slips trips/biologicals	3	look for all types of hazards potentially present, use barricades/cones/etc.	1	MR
Open well	biologicals/cuts/abrasions	4	task specific tools and PPE, barriers as appropriate	1	MR
Set up equipment	ergonomics/pinch/cut/electrical	2	unload equipment and plan set-up, don't rush	1	MR
Begin purge	dermal contact/splash	2	control flow rate, PPE	1	MR
Record information/collect samples	dermal contact/splash/bottleware preservatives	3	control flow rate, PPE, inspect bottleware	1	MR
Break-down equipment & Decon	ergonomics/pinch/cut/electrical	2	disassemble equipment/package and secure, don't rush	1	MR
Close well	biologicals/cuts/abrasions	3	task specific tools and PPE, barriers as appropriate	1	MR
Exit well area	traffic, visibility, road conditions, access	2	evaluate road conditions, review location details/route	1	MR
			Highest Risk Index		

Review and attach to Tailgate Meeting as required. Number and attach additional pages if necessary.

Originator

Print Name

Signature

Worker/Visitor acknowledgement and review of this content on back of this document.

Supervisor

Print Name

Signature _____

Risk Matrix on Reverse

THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

NAME (Please Print)

SIGNATURE

I participated in the development and understand the content of this Task Hazard Assessment.

Mariah Rockwell mi Rockwell

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 - Critical	3 - Major	2 - Moderate	1 - Minor
5 - Frequent	25	20	15	10	5
4 - Probable	20	16	12	8	
3 - Occasional	15	12	9	6	
2 - Remote	10	8	6		
1 - Improbable	5				

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	People	Property Damage	Environmental Impact	Public Image/Reputation
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Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

Emergency Meeting / Assembly Area

Emergency Contact #

911

Emergency Radio Channel

N/A

Area is safe and housekeeping completed at the end of task/shift.

Supervisor (print name)

Signature

Task Hazard Assessment (S3NA-209-FM6)

Revision 4 March 1, 2016

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VISITOR SIGN ON

NAME (Please Print)

SIGNATURE

TIME

[illegible]**Task Hazard Assessment Follow-Up/Review.**

First Break

Initial

Lunch Break

Initial

Second Break

Initial

YSI 556 MPS / Water Quality Calibration Certificate

AECOMCal Standard Temp, LAB, C : 21.8 Temp, FIELD, C :

Conductivity	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
1413 UMHO/CM @ 25°C	7810246	9/20	1.28		(+/- .5%)

PH 4.00	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809359	10/20	4.04		(+/- 0.2 units)

PH 7.01	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809236	9/20	6.96		(+/- 0.2 units)

PH 10.01	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809248	9/20	9.68		(+/- 0.2 units)

ORP ZOBELLS	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
231.0 MV @ 25°C	7811585	2/19	236.5		(+/- 20 MV)

Dissolved Oxygen (Saturated Air)	Post-Cal, LAB	Temp, C	% Saturation	mg/L	Acceptable Range (+/- 2%) / (+/- 2%)
		22.3	96.7	8.42	
	Post-Cal, FIELD	Temp, C	% Saturation	mg/L	

New DO Membrane

☐ Yes ☒ No

Do Cap Color

☐ Black ☒ Blue ☐ YellowModel 556 Pro+ S/N 3731 Cable H1A

Calibration referenced to the temperature of the calibration standards.

Turbidity	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
.02 NTU	71101	NOV-19	0.02		(.0196 to .0204)
10 NTU	71107	NOV-19	9.97		(9.8 to 10.2)
1000 NTU	71103	NOV-19	1010		(970 to 1031)

Model Micro TPW S/N 201712069Calibrated By Eric Olson Date of Calibration 4-18-19Project Name UTC Project number 60601883.01Signed : Eric Olson

YSI 556 MPS / Water Quality Calibration Certificate

AECOMCal Standard Temp, LAB, C : 21.49 Temp, FIELD, C :

Conductivity	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
1413 UMHO/CM @ 25°C	7810246	9/20	1.278		(+/- .5%)

PH 4.00	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809359	10/20	4.00		(+/- 0.2 units)

PH 7.01	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809236	9/20	7.01		(+/- 0.2 units)

PH 10.01	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
@ 25°C	7809248	9/20	9.94		(+/- 0.2 units)

ORP ZOBELLS	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
231.0 MV @ 25°C	7811585	2/19	237.5		(+/- 20 MV)

Dissolved Oxygen (Saturated Air)	Post-Cal, LAB	Temp, C	% Saturation	mg/L	Acceptable Range (+/- 2%) / (+/- 2%)
		21.88	97.7	8.56	
	Post-Cal, FIELD	Temp, C	% Saturation	mg/L	

New DO Membrane

☒ Yes ☐ No

Do Cap Color

☐ Black ☒ Blue ☐ Yellow

Model 556 S/N 05B 1017 AF Cable 16L08

Calibration referenced to the temperature of the calibration standards.

Turbidity	Lot #	Expiration	Post-Cal, LAB	Post-Cal, FIELD	Acceptable Range
.02 NTU	81201	Dec-20	0.02		(.0196 to .0204)
10 NTU	71107	Nov-19	9.96		(9.8 to 10.2)
1000 NTU	81239	Dec-20	1014		(970 to 1031)

Model Micro TPW S/N 201503451

Calibrated By Eric Olson Date of Calibration 4-16-19

Project Name UTC DrLavan Project number 60601883.01

Signed : Eric Olson

FIELD INSTRUMENT CALIBRATION LOG

Project Name: UTC De/over
 Project Number: 600201533-1
 Calibrated By: Randy Haly
 Signature: Randy Haly

Pro Mus
 YSI 556 SN: 3731
 Turbidity Meter Model/SN: 201712069
 Additional Equipment SN:
 Date: 4-22-19

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	758.1		0905	mmHg
Temperature (Saturated Air)	18.5	19.3	0905	C
Temperature (Calibration Solution)	18.6	18.1	0925	C
DO	9.79	9.21	0905	mg/L
pH 7	6.90	7.02	0913	SU
pH 4	10.0333	4.00	0917	SU
pH 10	9.79	10.05	0921	SU
Specific Conductance	1.28	1.28	0909	mS/cm
ORP	239.1	237.5	0925	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: <u>Yes</u> <u>No</u>
	(circle one)

FIELD INSTRUMENT CALIBRATION LOG

Project Name: UTC Delgran
 Project Number: 60601883.1
 Calibrated By: Kenny M. Morgan
 Signature: Kenny M. Morgan

YSI 556 SN: 05B1017AF
 Turbidity Meter Model/SN: 201503541
 Additional Equipment SN:
 Date: 4-22-2019

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance.

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	758.7		0900	mmHg
Temperature (Saturated Air)	18.73	18.85	0900	C
Temperature (Calibration Solution)	18.67	17.93	0923	C
DO	9.54	9.29	0900	mg/L
pH 7	6.75	7.02	0911	SU
pH 4	3.97	4.00	0915	SU
pH 10	9.89	10.02	0919	SU
Specific Conductance	1.243	1.278	0907	mS/cm
ORP	263.5	237.5	0923	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: ☒ Yes ☐ No
	(circle one)

FIELD INSTRUMENT CALIBRATION LOG

Project Name: UTC Delavan
 Project Number: 60601833-1
 Calibrated By: Randy Mugo
 Signature: Randy Mugo

YSI 556 SN: 3731
 Turbidity Meter Model/SN: 201712069
 Additional Equipment SN:
 Date: 4-23-19

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Table 1: Calibration Values At Various Temperatures					
Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury Note that the YSI 556 uses this information ONLY when the DO calibration is being done After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating

Table 2: Atmospheric Pressure / Altitude Table					
Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Table 3: DO % Saturation Vs Temperature									
Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

YSI 556 Calibration				
Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	760.2		0715	mmHg
Temperature (Saturated Air)	17.7	17.2	0715	C
Temperature (Calibration Solution)	19.1	18.0	0736	C
DO	9.20	9.63	0715	mg/L
pH 7	6.93	7.02	0723	SU
pH 4	3.98	4.00	0727	SU
pH 10	9.95	10.05	0731	SU
Specific Conductance	1.28	1.28	0719	mS/cm
ORP	236.8	237.5	0736	mV

MicroTPW Calibration	
Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: <u>Yes</u> No (circle one)

FIELD INSTRUMENT CALIBRATION LOG

Project Name: UTC Delavan
 Project Number: 00314964
 Calibrated By: M. Rockwell
 Signature: [Signature]

YSI 556 SN: 05B1017 AF
 Turbidity Meter Model/SN: 201503451
 Additional Equipment SN: _____
 Date: 4-23-19

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance.

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	760.4	[Redacted]	0727	mmHg
Temperature (Saturated Air)	17.03°	15.40°	0744	C
Temperature (Calibration Solution)	16.45°	16.64°	0745	C
DO	96.0	100.1	0729	mg/L
pH 7	6.80	7.01	0738	SU
pH 4	4.26	4.00	0735	SU
pH 10	9.95	10.08	0740	SU
Specific Conductance	1.261	1.150	0730	mS/cm
ORP	241.3	244.1	0743	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: <u>Yes</u> (circle one) No <u>MR</u>
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FIELD INSTRUMENT CALIBRATION LOG

Project Name: WTC Delavan
 Project Number: 1833-01
 Calibrated By: Randy Mudge
 Signature: Randy Mudge

YSI 556 SN: ProPlus 3731
 Turbidity Meter Model/SN: _____
 Additional Equipment SN: _____
 Date: 4-24-2019

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance.

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO	Temp C.	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure	756.9		0716	mmHg
Temperature (Saturated Air)	17.1	17.5	0716	C
Temperature (Calibration Solution)	21.1	20.9	0736	C
DO	9.44	9.54	0716	mg/L
pH 7	7.14	7.02	0724	SU
pH 4	4.07	4.00	0728	SU
pH 10	10.07	10.05	0732	SU
Specific Conductance	1.28	1.28	0720	mS/cm
ORP	236.5	237.5	0736	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: <u>Yes</u> (circle one)	No
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FIELD INSTRUMENT CALIBRATION LOG

Project Name: UTC Delavan
 Project Number: 100314964
 Calibrated By: Mamah Rockwell
 Signature: Mamah Rockwell

YSI 556 SN: 05B1017 AF
 Turbidity Meter Model/SN: 201803451
 Additional Equipment SN:
 Date: 4-24-19

Operation Notes:

- 1) Turn meter on in Run mode and allow to warm up 10 to 15 minutes prior to calibration.
- 2) Observe DO % for 2-3 minutes when meter is initially turned on. The unit should display decreasing values until it is stabilized near 100%.
- 3) If the meter does not stabilize at/near 100%, indicates the DO sensor requires maintenance.

These values should be keyed in when calibrating a water quality meter. Be sure to use the temperature of the standards, not ambient temperature, and be sure the temperature sensor is submerged in the solution.

Temp. C	pH 4	pH 7	pH 10	Conductivity	ORP
5	4.00	7.07	10.19	896.00	257.00
10	4.00	7.06	10.16	1020.00	250.50
15	4.00	7.04	10.10	1147.00	244.00
20	4.00	7.02	10.05	1278.00	237.50
25	4.00	7.01	10.01	1413.00	231.00
30	4.00	6.99	9.96	1548.00	224.50

mm Hg = millimeters of mercury. Note that the YSI 556 uses this information ONLY when the DO calibration is being done. After calibration is complete it no longer corrects for pressure change. Verify the meter is correct for your altitude when calibrating.

Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)	Altitude feet (asl)	Pressure (mmHg)
0	760	1126	730	2290	699
278	752	1413	722	2587	692
558	745	1703	714	2887	684
841	737	1995	707	3190	676

Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO	Temp C	DO
15	10.084	20	9.092	25	8.263	30	7.559	35	6.950
16	9.870	21	8.915	26	8.113	31	7.430	36	6.837
17	9.665	22	8.743	27	7.968	32	7.305	37	6.727
18	9.467	23	8.578	28	7.827	33	7.183	38	6.620
19	9.276	24	8.418	29	7.691	34	7.065	39	6.515

Parameter	Before Calibration	After Calibration	Time	Units
Barometric Pressure				mmHg
Temperature (Saturated Air)	19.20°		0737	C
Temperature (Calibration Solution)	21.36°	22.16°	0758	C
DO	98.0	99.0	0756	mg/L
pH 7	7.24	7.02	0745	SU
pH 4	3.75	3.99	0750	SU
pH 10	10.03	10.05	0752	SU
Specific Conductance	1126/1143	1.278	0740	mS/cm
ORP	232.9	231.0	0754	mV

Calibrations performed 0.02, 10, and 1,000 NTU	Calibrations accepted: ☒ Yes ☐ No (circle one)
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FAL3564

AECOM

Chain of Custody and Analytical Request

Page 1 of 2
Project Number: 60601837.1
Chain of Custody Number (1):

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC						Sample Analysis Requested										Quality Assurance Samples		
Client Name: UTC						COMMENTS												Cooler ID
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586															
Sample ID	Date Collected (dd-mm-yyyy)	Time Collected (Military) (hh:mm)	See Comments			Sample Information	TCL VOC's (8260B)	TCL SVOC's (8270D)	P/P Metals (6010C/7470B)									
1 Trip Blank-1	22-Apr-2019					Groundwater	X										ALL VOC'S ARE UNPRESERVED	
2 Trip Blank-2	22-Apr-2019						X										7 DAY HOLDING TIME	
3 MW-30D	22-Apr-2019	1555		XX			X											
4 MW-15	22-Apr-2019	1557		XX			X											
5 MW-31D	22-Apr-2019	1638		XX			X											
6 MW-19	22-Apr-2019	1705		XX			X											
7 MW-20	22-Apr-2019	1752		XX			X											
8 MW-25D	23-Apr-2019	0855		XX			X											
9 MW-12D	23-Apr-2019	0910		XX			X											
10 MW-32DR	23-Apr-2019	0940		XX			X											
11 MW-28	23-Apr-2019	0955		XX			X											
12 MW-27	23-Apr-2019	1033		XX			X											
13 MW-26D	23-Apr-2019	1035		XX			X											
14 MW-29	23-Apr-2019	1120		XX			X											
16 MW-22D	23-Apr-2019	1125		XX			X											

Custody Transfers Prior to Receipt by Laboratory				Sample Delivery Details / Laboratory Receipt			
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	Delivered Directly to Lab:	Shipped: XXXX
Randy Morgan	4-23-19	1430	FL	4/24/19	900	Method of Shipment: Fed Ex	Airbill #: 7491386899820
						Analytical Lab: Accutest	Location: Orlando FLA
						Lab Recipient:	Date: Time:

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY-HOLDING TIME

4.0

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FA63569

AECOM

Chain of Custody and Analytical Request

 Page 2 of 2
 Project Number: 006018931
 Chain of Custody Number (1):

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC						Sample Analysis Requested										Quality Assurance Samples		
Client Name: UTC						COMMENTS												Cooler ID
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586															
Sample ID	Date Collected (dd-mm-yyyy)	Time Collected (Military) (hh:mm)	See Comments			Sample Information	TCL VOC's (8260B)	TCL SVOC's (8270D)	P/P Metals (6010C/7470B)									
16 MW-220-a	23-Apr-2019	1125		XX		Groundwater	X										ALL VOC'S ARE UNPRESERVED	
17 MW-130	23-Apr-2019	1210		XX			X										7 DAY HOLDING TIME	
18 MW-14	23-Apr-2019	1220		XX			X											
19 MW-140	23-Apr-2019	1250		XX			X											
20 MW-140-a	23-Apr-2019	1250		XX			X											
21 MW-9	23-Apr-2019	1320		XX			X											
22 MW-9-MS (1)	23-Apr-2019	1320		XX			X										21	
23 MW-9-MS (6)	23-Apr-2019	1320		XX			X										21	
24 MW-210 (25)	23-Apr-2019	1400		XX			X										23	
25 MW-30 (24)	23-Apr-2019	1410		XX			X										24	
26 MW-30-MS (1)	23-Apr-2019	1410		XX			X										24	
27 MW-30-MS (2)	23-Apr-2019	1410		XX			X										24	
28 MW-320R (3)	23-Apr-2019	0940		XX			X										25	

Custody Transfers Prior to Receipt by Laboratory						Sample Delivery Details / Laboratory Receipt					
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	Delivered Directly to Lab:	Shipped:				
Randy Morgan	4-23-19	1430	FR			Method of Shipment:	XXXX				
						Fed Ex	Airbill #:	491386899820			
						Analytical Lab:	Accutest	Location: Orlando FLA			
						Lab Recipient:		Date: Time:			

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY HOLDING TIME

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FA63597

AECOM

Chain of Custody and Analytical Request

 Page 1 of 1
 Project Number: 60601833.01
 Chain of Custody Number (1):

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC					Sample Analysis Requested										Quality Assurance Samples			
Client Name: UTC					COMMENTS Cooler ID													
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586															
Sample ID	Date Collected (dd-mm-yy)	Time Collected (Military) (hh:mm)	See Comments			Sample Information	TCL VOCs (8260B)	TCL SVOCs (8270D)	P/P Metals (6010/7470B)									
Trip Blank-3	23-Apr-2019			X	X	Groundwater	X										ALL VOC'S ARE UNPRESERVED	1
Trip Blank-4	23-Apr-2019			X	X		X										7 DAY HOLDING TIME	2
MW-21D	23-Apr-2019	1400		X	X		X											
MW-3	23-Apr-2019	1515		X	X		X											3
MW-10	23-Apr-2019	1510		X	X		X											4
MW-21	23-Apr-2019	1600		X	X		X											5
MW-16	24-Apr-2019	0832		X	X		X											6
MW-1	24-Apr-2019	0835		X	X		X											7
MW-8	24-Apr-2019	0920		X	X		X											8
MW-17	24-Apr-2019	0925		X	X		X											9
MW-24	24-Apr-2019	1007		X	X		X											10
MW-5	24-Apr-2019	1010		X	X		X											11
IDW-1	24-Apr-2019	1025		X		✓	X	X	X									12

Custody Transfers Prior to Receipt by Laboratory				Sample Delivery Details / Laboratory Receipt			
1. Requisitioned By (Signed)	Date	Time	Received by (signed)	Date	Time	Delivered Directly to Lab:	Shipped: XXXX
1. Randy Morgan	4/24/19	1530	1. Fed Ex			Method of Shipment: Fed Ex	Airbill #: 7913 8689 9831
2. Fed Ex			2. ALG	04/25/19	915	Analytical Lab: Accutest	Location: Orlando FLA
3.			3.			Lab Recipient:	Date: Time:

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY HOLDING TIME

3.4

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FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) <u>4/24/19</u>		Casing Diameter <u>2.0</u> inches	
Field Personnel <u>Manah Rockwell</u>		Casing Material <u>PVC</u>	
Site Name <u>UTC Delavan Spray Technologies Site</u>		Measuring Point Elevation <u>147.56</u> 1/100 ft	
AECOM Job # <u>60314964</u>		Height of Riser (above land surface) <u>-0.37</u> 1/100 ft	
Sample ID* <u>MW-1</u>		Land Surface Elevation <u>147.19</u> 1/100 ft	
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☒ Source		Screened Interval <u>3</u> - <u>18</u> 1/100 ft	
Weather Conditions <u>Sunny</u>		Dedicated Pump or Bailer YES ☒ NO ☐ Type <u>tubing</u>	
Air Temperature <u>58°</u> °F		Steel Guard Pipe Around Casing YES ☐ NO ☒	
Total Well Depth (TWD) = <u>18.00</u> 1/100 ft		Locking Cap YES ☒ NO ☐	
Depth to Ground Water (DGW) = <u>11.71</u> 1/100 ft		Protective Post/Abutment YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW = <u>6.29</u> 1/100 ft		Well Integrity Satisfactory YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 = <u>1.03</u> gal		Yield LOW ☒ MODERATE ☐ HIGH ☐	
3 Casing Volumes = <u>3.09</u> gal = Standard Evacuation Volume		Comments/Observations <u>@ 0835</u>	
Method of Sample Evacuation <u>Purge with Peristaltic Pump</u>		Sample Time: <u>@ 0835</u>	
Method of Sample Collection <u>Peristaltic Pump Reverse Flow for VOC'S</u>		Sample Analytes: <u>VOCs</u>	
Total Volume of Water Removed <u>1.0</u> gal		Hack Fe Kit: <u>mg/L</u>	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft).

	FIELD ANALYSES												
	Initial	0.15	0.30	0.45	0.60	0.75							
VOLUME PURGED (gallons)	0805	0810	0815	0820	0825	0830							
TIME (Military)	11.70	12.15	12.24	12.30	12.32	12.34							
Water Level (ft BTOC)	5.12	5.24	5.60	5.54	5.56	5.57							
pH (S.U.)	0.037	0.035	0.032	0.032	0.032	0.032							
Sp. Cond. (mS/cm)	18.60	18.67	18.65	18.72	18.73	18.76							
Water Temp. (°C)	8.43	7.77	8.09	8.04	6.14	6.98							
Turbidity (NTUs)	4.52	4.45	4.83	5.27	5.29	5.31							
DO - (mg/L)	-	-	-	-	-	-							
Salinity (ppt)	328.5	332.6	367.0	400.6	399.9	398.1							
ORP (mV)													

COMMENTS/OBSERVATIONS Began purging at Purging rate: ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 23, 2019
Field Personnel Ronky Mary
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-3
☐ Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source
Weather Conditions clear / sunny
Air Temperature 80's ° F
Total Well Depth (TWD) = 18.00 1/100 ft
Depth to Ground Water (DGW) = 13.24 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 4.76 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 0.77 gal
3 Casing Volumes = 2.32 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 1.60 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 148.11 1/100 ft
Height of Riser (above land surface) -0.23 1/100 ft
Land Surface Elevation 148.34 1/100 ft
Screened Interval 3 - 18 1/100 ft
Dedicated Pump or Bailer YES ☒ NO ☐ Type Tubing
Steel Guard Pipe Around Casing YES ☒ NO ☐
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☐ MODERATE ☐ HIGH ☒
Comments/Observations
Sample Time: 1515
Sample Analytes: VOC's
Hack Fe Kit: NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft)

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	.40	.80	1.20	1.60						
1452	1459	1502	1507	1512						
13.40	13.44	13.35	13.37	13.37						
6.44	4.66	4.71	4.73	4.04						
0.022	0.021	0.021	0.021	0.020						
23.2	22.6	22.4	22.5	22.3						
4.44	4.76	7.57	5.55	5.09						
5.45	5.07	5.00	5.10	5.05						
0.01	0.01	0.01	0.01	0.01						
287.9	352.9	342.9	339.7	344.9						

COMMENTS/OBSERVATIONS

Began purging at

Purging rate

ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>April 23, 2019</u>		
Field Personnel	<u>Randy Morgan</u>		
Site Name	<u>UTC Delavan Spray Technologies Site</u>		
AECOM Job #	<u>60314964</u>		
Sample ID*	<u>MW-3D</u>		
Upgradient ☐ Downgradient ☒ Sidegradient ☐ Source ☐			
Weather Conditions	<u>mostly Sunny</u>		
Air Temperature	<u>76</u>	° F	
Total Well Depth (TWD) =	<u>49.00</u>	1/100 ft	
Depth to Ground Water (DGW) =	<u>13.91</u>	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	<u>35.09</u>	1/100 ft	
1 Casing Volume (OCV)* = LWC x	<u>0.163</u>	<u>= 5.71</u>	gal
3 Casing Volumes =	<u>17.15</u>	gal = Standard Evacuation Volume	
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>		
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>		
Total Volume of Water Removed	<u>2.4</u>	gal	
Casing Diameter	<u>2.0</u>	inches	
Casing Material	<u>PVC</u>		
Measuring Point Elevation	<u>148.12</u>	1/100 ft	
Height of Riser (above land surface)	<u>-0.16</u>	1/100 ft	
Land Surface Elevation	<u>148.28</u>	1/100 ft	
Screened Interval	<u>44</u>	<u>-</u>	<u>49</u> 1/100 ft
Dedicated Pump or Bailor	YES ☒ NO ☐	Type	<u>Tubing</u>
Steel Guard Pipe Around Casing	YES ☒ NO ☐		
Locking Cap	YES ☒ NO ☐		
Protective Post/Abutment	YES ☐ NO ☒		
Well Integrity Satisfactory	YES ☒ NO ☐		
Yield	LOW ☐ MODERATE ☐ HIGH ☒		
Comments/Observations	<u>Sample Time: 1410</u>		
Sample Analytes:	<u>VOC'S</u>		
Hack Fe Kit:	<u>NA</u>	<u>mg/L</u>	<u>MS/MSD</u> (Add tubing for MS/MSD)

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	.40	.80	1.20	1.60	2.0	2.4				
	1338	1343	1348	1353	1358	1403	1408			
	13.92	13.90	13.90	13.90	13.90	13.90	13.90			
	6.49	6.86	7.22	7.36	7.35	7.44	7.40			
	0.237	0.232	0.233	0.234	0.233	0.235	0.234			
	24.40	23.7	23.7	23.9	23.9	24.1	24.0			
	3.90	3.37	4.34	2.51	2.63	1.48	1.42			
	2.49	2.26	2.26	2.25	2.22	2.22	2.20			
	0.11	0.11	0.11	0.11	0.11	0.11	0.11			
	236.2	220.3	186.9	165.8	160.2	146.3	144.4			

COMMENTS/OBSERVATIONS

Began purging at

Purging rate

ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) 4/24/19
Field Personnel Marion Rockwell
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-5
☒ Upgradient ☐ Downgradient ☐ Sidegradient ☐ Source
Weather Conditions Sunny
Air Temperature 66° ° F
Total Well Depth (TWD) = 14.00 1/100 ft
Depth to Ground Water (DGW) = 7.55 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 6.45 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 1.05 gal
3 Casing Volumes = 3.15 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 1.40 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 145.46 1/100 ft
Height of Riser (above land surface) 0.12 1/100 ft
Land Surface Elevation 145.34 1/100 ft
Screened Interval 4 - 14 1/100 ft
Dedicated Pump or Bailer YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing YES ☐ NO ☒
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☒ MODERATE ☐ HIGH ☐
Comments/Observations @ 1010
Sample Time: VOCs
Sample Analytes: VOCs
~~Hack Fe Kit~~ mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.
Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0.20	0.40	0.60	0.80	1.0	1.20				
0935	0940	0945	0950	0955	1000	1005				
7.86	8.04	8.18	8.21	8.24	8.26	8.26				
5.51	5.03	5.19	5.64	5.70	5.73	5.72				
0.020	0.020	0.020	0.019	0.019	0.020	0.019				
19.31	19.23	19.40	19.54	19.75	19.78	19.84				
18.49	19.84	11.61	9.87	4.55	3.48	4.47				
7.33	7.23	7.08	7.09	7.04	7.01	6.99				
—	—	—	—	—	—	—				
489.0	559.0	496.1	463.7	420.9	415.5	407.0				

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page ____ of ____

Date (mo/day/yr) April 24, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-7
Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source ☐
Weather Conditions mostly sunny
Air Temperature 60's ° F
Total Well Depth (TWD) = 20.00 1/100 ft
Depth to Ground Water (DGW) = 13.29 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 6.71 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 1.09 gal
3 Casing Volumes = 3.28 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.40 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 149.03 1/100 ft
Height of Riser (above land surface) -0.22 1/100 ft
Land Surface Elevation 149.25 1/100 ft
Screened Interval 5 - 20 1/100 ft
Dedicated Pump or Bailer YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing YES ☒ NO ☐
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☒ MODERATE ☐ HIGH ☐
Comments/Observations 0925
Sample Time: 0925
Sample Analytes: VOC'S
Hack Fe Kit: NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	.70	.80	1.20	1.60	2.0	2.40				
0852	0857	0902	0907	0912	0917	0922				
13.25	14.28	14.70	15.13	16.60	16.71	16.84				
4.83	4.99	4.77	4.84	4.80	4.80	4.76				
0.015	0.015	0.015	0.014	0.014	0.014	0.015				
19.2	19.2	19.2	19.2	19.3	19.4	19.5				
13.60	7.65	4.73	4.05	5.19	5.91	5.65				
7.64	7.58	7.76	7.67	7.58	7.55	7.54				
0.01	0.01	0.01	0.01	0.01	0.01	0.01				
208.2	222.2	241.7	256.5	270.4	282.2	284.6				

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) 4/24/19
Field Personnel Marcin Rokwell
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-8
☐ Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source
Weather Conditions Sunny
Air Temperature 60° ° F
Total Well Depth (TWD) = 20.00 1/100 ft
Depth to Ground Water (DGW) = 10.81 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 9.19 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 1.50 gal
3 Casing Volumes = 4.50 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 1.20 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 145.66 1/100 ft
Height of Riser (above land surface) -0.29 1/100 ft
Land Surface Elevation 145.95 1/100 ft
Screened Interval 5 - 20 1/100 ft
Dedicated Pump or Bailor YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing YES ☐ NO ☒
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☐ MODERATE ☒ HIGH ☐
Comments/Observations @ 0920
Sample Time: VOCs
Sample Analytes: VOCs
~~HAZARDOUS~~ ~~mg/L~~

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0.20	0.40	0.60	0.80	1.0					
0850	0855	0900	0905	0910	0915					
10.81	11.11	11.26	11.30	11.30	11.30					
5.13	5.26	5.76	5.98	5.99	5.98					
0.063	0.058	0.058	0.064	0.065	0.065					
20.45°	20.93°	21.27	21.38°	21.45°	21.48°					
718.3	46.26	19.28	5.69	5.20	4.57					
2.76	2.99	2.46	2.96	3.02	3.12					
-	-	-	-	-	-					
362.7	353.6	343.1	336.0	338.9	340.0					

COMMENTS/OBSERVATIONS

Began purging at

Purging rate:

ml/min

yellowish tint; went reversed flow
to sample, tubing
was full of debris



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>April 23 2019</u>		
Field Personnel	<u>Randy Morgan</u>		
Site Name	<u>UTC Delavan Spray Technologies Site</u>		
AECOM Job #	<u>60314964</u>		
Sample ID*	<u>MW-9</u>		
Upgradient ☐ Downgradient ☒ Sidegradient ☐ Source ☐			
Weather Conditions	<u>mostly sunny</u>		
Air Temperature	<u>17.6</u>	° F	
Total Well Depth (TWD) =	<u>20.00</u>	1/100 ft	
Depth to Ground Water (DGW) =	<u>5.32</u>	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	<u>14.68</u>	1/100 ft	
1 Casing Volume (OCV)* = LWC x	<u>0.163</u>	=	<u>2.39</u> gal
3 Casing Volumes =	<u>7.17</u>	gal = Standard Evacuation Volume	
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>		
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>		
Total Volume of Water Removed	<u>2.8</u>	gal	
Casing Diameter	<u>2.0</u>	inches	
Casing Material	<u>PVC</u>		
Measuring Point Elevation	<u>143.89</u>	1/100 ft	
Height of Riser (above land surface)	<u>-0.22</u>	1/100 ft	
Land Surface Elevation	<u>144.11</u>	1/100 ft	
Screened Interval	<u>5</u>	-	<u>20</u> 1/100 ft
Dedicated Pump or Bailer	YES ☐ NO ☒	Type <u>tubing</u>	
Steel Guard Pipe Around Casing	YES ☒ NO ☐		
Locking Cap	YES ☒ NO ☐		
Protective Post/Abutment	YES ☐ NO ☒		
Well Integrity Satisfactory	YES ☒ NO ☐		
Yield	LOW ☒ MODERATE ☐ HIGH ☐		
Comments/Observations			
Sample Time	<u>1320</u>		
Sample Analytes	<u>VOC'S</u>		
Hack Fe Kit	<u>NA</u>	<u>mg/L</u> <u>MS/MSD</u> <u>(add tubing for MS/MSD)</u>	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	<u>.40</u>	<u>.80</u>	<u>1.20</u>	<u>1.60</u>	<u>2.0</u>	<u>2.4</u>	<u>2.8</u>			
	<u>1243</u>	<u>1248</u>	<u>1253</u>	<u>1258</u>	<u>1303</u>	<u>1308</u>	<u>1313</u>	<u>1318</u>		
	<u>5.80</u>	<u>5.94</u>	<u>6.08</u>	<u>6.17</u>	<u>6.23</u>	<u>6.30</u>	<u>6.37</u>	<u>6.39</u>		
	<u>5.57</u>	<u>4.48</u>	<u>4.31</u>	<u>4.23</u>	<u>4.41</u>	<u>4.31</u>	<u>4.37</u>	<u>4.47</u>		
	<u>0.028</u>	<u>0.027</u>	<u>0.028</u>	<u>0.029</u>	<u>0.029</u>	<u>0.029</u>	<u>0.028</u>	<u>0.028</u>		
	<u>19.9</u>	<u>19.8</u>	<u>19.1</u>	<u>19.2</u>	<u>19.3</u>	<u>19.0</u>	<u>19.6</u>	<u>19.8</u>		
	<u>14.87</u>	<u>13.32</u>	<u>14.37</u>	<u>12.42</u>	<u>10.28</u>	<u>9.36</u>	<u>9.46</u>	<u>7.71</u>		
	<u>2.01</u>	<u>1.79</u>	<u>1.80</u>	<u>1.70</u>	<u>1.67</u>	<u>1.66</u>	<u>1.72</u>	<u>1.69</u>		
	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>	<u>0.01</u>		
	<u>333.6</u>	<u>366.5</u>	<u>375.4</u>	<u>378.9</u>	<u>362.0</u>	<u>359.1</u>	<u>352.9</u>	<u>346.8</u>		

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>4/23/19</u>	Casing Diameter	<u>2.0</u>	inches
Field Personnel	<u>mariah Rockwell</u>	Casing Material	<u>PVC</u>	
Site Name	<u>UTC Delavan Spray Technologies Site</u>	Measuring Point Elevation	<u>142.19</u>	1/100 ft
AECOM Job #	<u>60314964</u>	Height of Riser (above land surface)	<u>-0.37</u>	1/100 ft
Sample ID*	<u>MW-10</u>	Land Surface Elevation	<u>142.56</u>	1/100 ft
Upgradient ☐ Downgradient ☒ Sidegradient ☐ Source ☐		Screened Interval	<u>3</u> - <u>18</u>	1/100 ft
Weather Conditions	<u>sunny</u>	Dedicated Pump or Bailor	YES ☒ NO ☐	Type <u>tubing</u>
Air Temperature	<u>85°</u>	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	<u>18.00</u>	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	<u>7.46</u>	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	<u>10.54</u>	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 =	<u>1.72</u>	Yield	LOW ☐ MODERATE ☒ HIGH ☐	
3 Casing Volumes =	<u>5.16</u>	Comments/Observations	<u>Sample Time: <u>1510</u></u>	
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>	Sample Analytes	<u>VOCs</u>	
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>	Hack P&K Kit	<u>mg/L</u>	
Total Volume of Water Removed				

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond (mS/cm)

Water Temp (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0.20	0.40	0.60	0.80	1.0	1.20	1.40			
1436	1435	1440	1445	1450	1455	1500	1505			
7.45	7.47	7.47	7.47	7.47	7.47	7.48	7.48			
* 1.99	0.79	0.64	0.92	1.50	1.76	1.73	1.74			
0.023	0.023	0.023	0.022	0.022	0.022	0.021	0.022			
19.70	19.62	19.51	19.52	19.50	19.57	19.53	19.50			
14.46	8.01	4.34	6.69	4.20	5.59	5.84	3.95			
* 1.16	1.09	1.12	1.15	1.20	1.36	1.39	1.45			
* 435.0	449.5	449.9	436.3	427.0	413.8	413.6	413.4			

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

Attempted to 'Ax' VSI but no luck
- known false readings -



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	Apr 11 23, 2019		
Field Personnel	Randy Morgan		
Site Name	UTC Delavan Spray Technologies Site		
AECOM Job #	60314964		
Sample ID*	MW-12D		
Upgradient	☒	Downgradient	☐
Sidegradient	☐	Source	☐
Weather Conditions	clear / sunny		
Air Temperature	53	° F	
Total Well Depth (TWD) =	50.00	1/100 ft	
Depth to Ground Water (DGW) =	13.47	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	36.53	1/100 ft	
1 Casing Volume (OCV)* = LWC x 0.163	= 5.95	gal	
3 Casing Volumes =	17.85	gal = Standard Evacuation Volume	
Method of Sample Evacuation	Purge with Peristaltic Pump		
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S		
Total Volume of Water Removed	5.20	gal	
Casing Diameter	2.0	inches	
Casing Material	PVC		
Measuring Point Elevation	147.65	1/100 ft	
Height of Riser (above land surface)	-0.21	1/100 ft	
Land Surface Elevation	147.86	1/100 ft	
Screened Interval	40 - 50	1/100 ft	
Dedicated Pump or Bailer	YES ☒ NO ☐	Type	fusing
Steel Guard Pipe Around Casing	YES ☒ NO ☐		
Locking Cap	YES ☒ NO ☐		
Protective Post/Abutment	YES ☐ NO ☒		
Well Integrity Satisfactory	YES ☒ NO ☐		
Yield	LOW ☐ MODERATE ☐ HIGH ☒		
Comments/Observations	Sample Time: 0910 Sample Analytes: VOC'S Hack Fe Kit: NA mg/L		

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)	Initial	1.80	1.60	2.40	3.20	4.0	4.40	4.80	5.20		
TIME (Military)	0803	0813	0823	0833	0843	0853	0858	0903	0908		
Water Level (ft BTOC)	14.03	14.85	14.85	14.82	14.83	14.84	14.84	14.84	14.84		
pH (S.U.)	10.49	10.50	10.13	9.65	9.47	9.35	9.32	9.34	9.28		
Sp. Cond. (mS/cm)	0.277	0.232	0.213	0.213	0.215	0.216	0.216	0.217	0.218		
Water Temp. (°C)	17.6	17.8	17.9	17.9	18.0	18.0	18.1	18.1	18.1		
Turbidity (NTUs)	2.92	2.15	1.38	1.16	1.00	0.83	0.70	0.31	0.01		
DO - (mg/L)	5.35	4.99	4.81	4.62	4.58	4.65	4.60	4.58	4.55		
Salinity (ppt)	0.13	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10		
ORP (mV)	217.7	142.7	144.7	152.8	152.5	152.4	149.5	146.4	145.2		

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

Ph and Conductivity are high stabilize after 5 gals



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page ____ of ____

Date (mo/day/yr) April 23, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-13D
____ Upgradient X Downgradient ____ Sidegradient ____ Source ____
Weather Conditions Clear Sunny
Air Temperature 70'S ° F
Total Well Depth (TWD) = 50.00 1/100 ft
Depth to Ground Water (DGW) = 19.20 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 37.80 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 6.16 gal
3 Casing Volumes = 18.48 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2-8 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 146.23 1/100 ft
Height of Riser (above land surface) -0.18 1/100 ft
Land Surface Elevation 146.41 1/100 ft
Screened Interval 40 - 50 1/100 ft
Dedicated Pump or Bailer YES X NO ____ Type Pushing
Steel Guard Pipe Around Casing YES X NO ____
Locking Cap YES ____ NO ____
Protective Post/Abutment YES ____ NO X
Well Integrity Satisfactory YES X NO ____
Yield LOW ____ MODERATE ____ HIGH X
Comments/Observations 1210
Sample Time: VOC'S
Sample Analytes: VOC'S
Hack Fe Kit NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC, for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.
Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft)

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	1.40	1.80	1.20	1.60	2.0	2.4	2.8			
1133	1138	1143	1148	1153	1158	1203	1208			
12.18	12.18	12.18	12.18	12.18	12.18	12.18	12.18			
6.51	6.80	7.10	7.27	7.44	7.56	7.58	7.63			
0.217	0.223	0.223	0.223	0.224	0.225	0.225	0.226			
19.5	19.6	19.7	19.6	19.5	19.7	19.6	19.7			
1.42	1.19	0.61	0.73	1.10	1.51	0.01	0.75			
4.53	3.92	3.91	3.80	3.94	3.91	3.92	3.87			
0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11			
205.1	198.5	185.2	176.7	171.0	162.9	161.2	157.0			

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) 4/23/19
Field Personnel Mariah Rockwell
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-14
Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source ☐
Weather Conditions sunny
Air Temperature 74° ° F
Total Well Depth (TWD) = 20.00 1/100 ft
Depth to Ground Water (DGW) = 11.27 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 8.73 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 1.42 gal
3 Casing Volumes = 4.26 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 1.20 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 146.90 1/100 ft
Height of Riser (above land surface) -0.15 1/100 ft
Land Surface Elevation 147.05 1/100 ft
Screened Interval 5 - 20 1/100 ft
Dedicated Pump or Bailor YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing YES ☐ NO ☒
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☒ MODERATE ☐ HIGH ☐
Comments/Observations @ 1220
Sample Time: @ 1220
Sample Analytes: VOCs
Hack Fo Kit mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102 X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

* Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)	Initial	0.15	0.30	0.50	0.65	0.80	1.0	1.10			
TIME (Military)	1140	1145	1150	1155	1200	1205	1210	1215			
Water Level (ft BTOC)	11.42	11.45	12.30	12.50	12.70	12.74	12.76	12.76			
pH (S.U.)	* 1.97	0.70	0.63	-3.43	0.33	2.70	3.22	3.30			
Sp. Cond. (mS/cm)	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019			
Water Temp. (°C)	21.01	21.01	20.90	20.96	21.57	21.87	21.98	22.10			
Turbidity (NTUs)	130.7	22.66	8.75	7.95	6.83	6.96	6.13	5.96			
DO - (mg/L)	* 72.4	71.2	73.3	77.7	78.4	79.8	79.9	79.8			
Salinity (ppt)											
ORP (mV)	* 488.1	454.7	492.9	684.7	513.7	375.6	369.1	358.6			

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

attempted to 'fix' VST but still
got off pH readings

ORP
DOknown false
readings



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>4/23/19</u>	Casing Diameter	<u>2.0</u>	inches
Field Personnel	<u>Manah Rodwell</u>	Casing Material	<u>PVC</u>	
Site Name	<u>UTC Delavan Spray Technologies Site</u>	Measuring Point Elevation	<u>146.88</u>	1/100 ft
AECOM Job #	<u>60314964</u>	Height of Riser (above land surface)	<u>-0.23</u>	1/100 ft
Sample ID*	<u>MW-14D</u>	Land Surface Elevation	<u>147.11</u>	1/100 ft
Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source ☐		Screened Interval	<u>40</u> - <u>50</u>	1/100 ft
Weather Conditions	<u>Sunny</u>	Dedicated Pump or Bailer	YES ☒ NO ☐	Type <u>tubing</u>
Air Temperature	<u>75</u>	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	<u>50.00</u>	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	<u>12.86</u>	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	<u>37.14</u>	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 =	<u>6.05</u>	Yield	LOW ☐ MODERATE ☐ HIGH ☒	
3 Casing Volumes =	<u>18.15</u>	Comments/Observations		
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>	Sample Time:	<u>@ 1250</u>	
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>	Sample Analytes:	<u>VOCs</u>	
Total Volume of Water Removed	<u>1.15</u> gal	Hack-Fa Kit:	<u>mg/L</u>	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0-20	0-40	0-75	1-0						
1225	1230	1235	1240	1245						
12.86	12.86	12.86	12.86	12.86						
5.49	6.13	6.57	6.50	6.48						
0.217	0.218	0.217	0.217	0.217						
22.06	22.27	22.13	22.18	22.22						
361.3	42.71	13.51	5.56	5.30						
7.3	6.8	7.3	7.2	7.3						
-	-	-	-	-						
177.7	153.4	147.7	140.2	136.8						

COMMENTS/OBSERVATIONS

Began purging at

Purging rate:

ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 22, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-15
____ Upgradient ☒ Downgradient ____ Sidegradient ____ Source ____
Weather Conditions Clear Sunny
Air Temperature 76 ° F
Total Well Depth (TWD) = 19.00 1/100 ft
Depth to Ground Water (DGW) = 3.12 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 15.88 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 2.58 gal
3 Casing Volumes = 7.76 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.80 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 135.73 1/100 ft
Height of Riser (above land surface) -0.40 1/100 ft
Land Surface Elevation 136.13 1/100 ft
Screened Interval 4 - 19 1/100 ft
Dedicated Pump or Bailer YES ____ NO ☒ Type ____
Steel Guard Pipe Around Casing YES ☒ NO ____
Locking Cap YES ☒ NO ____
Protective Post/Abutment YES ____ NO ☒
Well Integrity Satisfactory YES ☒ NO ____
Yield LOW ____ MODERATE ____ HIGH ☒
Comments/Observations
Sample Time: 1559
Sample Analytes: VOC'S
Hack Fe Kit NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	1.40	.80	1.20	1.60	2.0	2.40	2.80			
1520	1525	1530	1535	1540	1545	1550	1555			
3.27	3.35	3.42	3.48	3.50	3.52	3.53	3.53			
5.14	4.90	5.09	5.27	5.32	5.38	5.38	5.44			
0.447	0.445	0.442	0.426	0.385	0.358	0.344	0.333			
18.6	18.5	18.8	18.6	19.0	18.6	18.9	18.6			
11.63	4.15	3.57	3.63	5.79	8.47	7.73	6.10			
0.71	0.15	0.15	0.11	0.10	0.09	0.08	0.09			
0.21	0.21	0.21	0.20	0.19	0.17	0.17	0.16			
1192	124.8	110.0	100.7	108.1	98.1	96.6	88.6			

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 24 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-16
☐ Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source
Weather Conditions mostly sunny
Air Temperature 58 ° F
Total Well Depth (TWD) = 19.00 1/100 ft
Depth to Ground Water (DGW) = 9.11 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 15.89 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 2.59 gal
3 Casing Volumes = 7.77 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.40 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation 138.30 1/100 ft
Height of Riser (above land surface) -0.44 1/100 ft
Land Surface Elevation 138.74 1/100 ft
Screened Interval 4 - 19 1/100 ft
Dedicated Pump or Bailor YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing YES ☒ NO ☐
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☐ MODERATE ☐ HIGH ☒
Comments/Observations
Sample Time: 0832
Sample Analytes: VOC'S
Hack Fe Kit: N/A mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	.40	.80	1.20	1.60	2.0	2.40				
0800	0803	0810	0815	0820	0825	0830				
3.48	3.49	3.50	3.52	3.53	3.55	3.56				
7.57	4.51	4.35	4.32	4.44	4.52	4.58				
0.039	0.31	0.28	0.30	0.26	0.027	0.027				
16.3	16.4	16.4	16.5	16.5	16.6	16.6				
52.91	22.04	18.06	15.25	10.51	6.44	5.15				
0.43	0.21	0.08	0.09	0.14	0.14	0.12				
0.02	0.01	0.01	0.01	0.01	0.01	0.01				
169.5	179.5	183.1	175.6	166.2	158.2	154.1				

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>April 22, 2019</u>		
Field Personnel	<u>Randy Mungen</u>		
Site Name	UTC Delavan Spray Technologies Site		
AECOM Job #	60314964		
Sample ID*	MW-19		
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☒ Source			
Weather Conditions	<u>clear / sunny</u>		
Air Temperature	<u>76</u>	° F	
Total Well Depth (TWD) =	<u>20.15</u>	1/100 ft	
Depth to Ground Water (DGW) =	<u>11.95</u>	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	<u>8.20</u>	1/100 ft	
1 Casing Volume (OCV)* = LWC x 0.041	<u>= 0.33</u>	gal	
3 Casing Volumes =	<u>1.00</u>	gal = Standard Evacuation Volume	
Method of Sample Evacuation	Purge with Peristaltic Pump		
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S		
Total Volume of Water Removed	<u>1.75</u>	gal	

Casing Diameter	<u>1.0</u>	inches
Casing Material	<u>PVC</u>	
Measuring Point Elevation	<u>148.22</u>	1/100 ft
Height of Riser (above land surface)	<u>-0.25</u>	1/100 ft
Land Surface Elevation	<u>148.47</u>	1/100 ft
Screened Interval	<u>5</u> - <u>20</u>	1/100 ft
Dedicated Pump or Bailer	YES ☒ NO ☐	Type <u>7950g</u>
Steel Guard Pipe Around Casing	YES ☒ NO ☐	
Locking Cap	YES ☒ NO ☐	
Protective Post/Abutment	YES ☐ NO ☒	
Well Integrity Satisfactory	YES ☒ NO ☐	
Yield	LOW ☒ MODERATE ☒ HIGH ☐	
Comments/Observations		
Sample Time:	<u>1705</u>	
Sample Analytes	<u>VOC'S</u>	
Hack Fe Kit	<u>NA</u>	mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	<u>1.35</u>	<u>.70</u>	<u>1.05</u>	<u>1.40</u>	<u>1.75</u>					
	<u>1639</u>	<u>1644</u>	<u>1649</u>	<u>1654</u>	<u>1659</u>	<u>1704</u>				
	<u>12.54</u>	<u>12.80</u>	<u>12.85</u>	<u>12.89</u>	<u>12.88</u>	<u>12.93</u>				
	<u>4.36</u>	<u>3.91</u>	<u>3.96</u>	<u>4.07</u>	<u>4.05</u>	<u>4.07</u>				
	<u>0.087</u>	<u>0.084</u>	<u>0.083</u>	<u>0.082</u>	<u>0.081</u>	<u>0.081</u>				
	<u>21.8</u>	<u>21.6</u>	<u>21.5</u>	<u>21.5</u>	<u>21.4</u>	<u>21.4</u>				
	<u>32.75</u>	<u>2.58</u>	<u>1.59</u>	<u>0.70</u>	<u>0.47</u>	<u>1.05</u>				
	<u>1.48</u>	<u>1.04</u>	<u>1.01</u>	<u>1.03</u>	<u>1.02</u>	<u>1.03</u>				
	<u>0.04</u>	<u>0.04</u>	<u>0.04</u>	<u>0.04</u>	<u>0.04</u>	<u>0.04</u>				
	<u>226.0</u>	<u>255.1</u>	<u>253.9</u>	<u>244.6</u>	<u>244.7</u>	<u>245.2</u>				

COMMENTS/OBSERVATIONS

Began purging at

Purging rate:

ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>April 22, 2019</u>		
Field Personnel	<u>Randy Musyan</u>		
Site Name	<u>UTC Delavan Spray Technologies Site</u>		
AECOM Job #	<u>60314964</u>		
Sample ID*	<u>MW-20</u>		
Upgradient	☐	Downgradient	☐
Sidegradient	☐	X	Source
Weather Conditions	<u>clear sunny</u>		
Air Temperature	<u>76</u>	° F	
Total Well Depth (TWD) =	<u>15.15</u>	1/100 ft	
Depth to Ground Water (DGW) =	<u>11.90</u>	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	<u>3.25</u>	1/100 ft	
1 Casing Volume (OCV)* = LWC x 0.041	<u>= 0.13</u>	gal	
3 Casing Volumes =	<u>0.39</u>	gal = Standard Evacuation Volume	
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>		
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>		
Total Volume of Water Removed	<u>1.75</u>	gal	
Casing Diameter	<u>1.0</u>	inches	
Casing Material	<u>PVC</u>		
Measuring Point Elevation	<u>148.19</u>	1/100 ft	
Height of Riser (above land surface)	<u>-0.31</u>	1/100 ft	
Land Surface Elevation	<u>148.50</u>	1/100 ft	
Screened Interval	<u>5</u>	<u>15</u>	1/100 ft
Dedicated Pump or Bailer	YES ☒	NO ☐	Type <u>Trussing</u>
Steel Guard Pipe Around Casing	YES ☒	NO ☐	
Locking Cap	YES ☒	NO ☐	
Protective Post/Abutment	YES ☐	NO ☒	
Well Integrity Satisfactory	YES ☒	NO ☐	
Yield	LOW ☐	MODERATE ☐	HIGH ☒
Comments/Observations	<u>Sample Time: 1752</u>		
Sample Analytes	<u>VOC'S</u>		
Hack Fe Kit	<u>NA</u> mg/L		

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond (mS/cm)

Water Temp (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	1.35	1.70	1.05	1.40	1.75					
	1725	1730	1735	1740	1745	1750				
	12.35	12.62	12.71	12.77	12.80	12.80				
	4.41	3.95	4.03	4.12	4.18	4.21				
	0.036	0.034	0.034	0.033	0.033	0.033				
	21.5	21.4	21.4	21.4	21.4	21.4				
	6.12	0.14	0.50	0.00	0.00	0.00				
	5.27	4.25	4.04	3.86	3.75	3.82				
	0.02	0.01	0.01	0.01	0.01	0.01				
	255.7	284.7	283.4	282.3	283.8	285.0				

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) <u>4/23/19</u>		Casing Diameter <u>2.0</u> inches
Field Personnel <u>Manah Rockwell</u>		Casing Material <u>PVC</u>
Site Name <u>UTC Delavan Spray Technologies Site</u>		Measuring Point Elevation <u>147.97</u> 1/100 ft
AECOM Job # <u>60314964</u>		Height of Riser (above land surface) <u>-0.20</u> 1/100 ft
Sample ID* <u>MW-21</u>		Land Surface Elevation <u>148.17</u> 1/100 ft
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☒ Source		Screened Interval <u>19</u> - <u>34</u> 1/100 ft
Weather Conditions <u>Sunny</u>		Dedicated Pump or Bailer YES ☒ NO ☐ Type <u>tubing</u>
Air Temperature <u>85°</u> °F		Steel Guard Pipe Around Casing YES ☐ NO ☒
Total Well Depth (TWD) = <u>34.40</u> 1/100 ft		Locking Cap YES ☒ NO ☐
Depth to Ground Water (DGW) = <u>12.54</u> 1/100 ft		Protective Post/Abutment YES ☐ NO ☒
Length of Water Column (LWC) = TWD - DGW = <u>21.86</u> 1/100 ft		Well Integrity Satisfactory YES ☒ NO ☐
1 Casing Volume (OCV)* = LWC x <u>0.163</u> = <u>3.56</u> gal		Yield LOW ☐ MODERATE ☐ HIGH ☒
3 Casing Volumes = <u>10.68</u> gal = Standard Evacuation Volume		Comments/Observations <u>@ 1600</u>
Method of Sample Evacuation <u>Purge with Peristaltic Pump</u>		Sample Time: <u>@ 1600</u>
Method of Sample Collection <u>Peristaltic Pump Reverse Flow for VOC'S</u>		Sample Analytes: <u>VOCs</u>
Total Volume of Water Removed <u>gal</u>		Hack To Kit <u>mg/L</u>

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)
 TIME (Military)
 Water Level (ft BTOC)
 pH (S.U.)
 Sp. Cond. (mS/cm)
 Water Temp. (°C)
 Turbidity (NTUs)
 DO - (mg/L)
 Salinity (ppt)
 ORP (mV)

Initial	0.20	0.40	0.60	0.80	1.00	1.40	1.60			
1510	1525	1530	1535	1540	1545	1550	1555			
12.49	12.50	12.59	12.60	12.60	12.60	12.60	12.60			
* 1.90	-0.20	0.00	0.93	2.90	3.34	3.36	3.38			
0.018	0.019	0.019	0.019	0.019	0.020	0.020	0.020			
23.49	22.04	22.11	22.11	22.17	22.41	22.42	22.42			
24.32	17.66	13.53	9.34	6.58	5.78	3.89	4.27			
* 2.60	0.30	0.41	0.43	0.24	0.23	0.22	0.22			
* 471.6	519.0	460.1	427.7	375.0	346.6	348.5	347.7			

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

Attempted to 'fix' YSI (3rd time today)
 - known false readings -



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>4/23/19</u>	Casing Diameter	<u>2.0</u>	inches
Field Personnel	<u>Manan Rockwell</u>	Casing Material	<u>PVC</u>	
Site Name	<u>UTC Delavan Spray Technologies Site</u>	Measuring Point Elevation	<u>146.92</u>	1/100 ft
AECOM Job #	<u>60314964</u>	Height of Riser (above land surface)	<u>-0.31</u>	1/100 ft
Sample ID*	<u>MW-21D</u>	Land Surface Elevation	<u>147.23</u>	1/100 ft
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☒ Source		Screened Interval	<u>43</u> - <u>53</u>	1/100 ft
Weather Conditions	<u>Sunny</u>	Dedicated Pump or Bailer	YES ☒ NO ☐	Type <u>tubing</u>
Air Temperature	<u>81°</u>	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	<u>53.40</u>	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	<u>12.70</u>	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	<u>40.7</u>	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x	<u>0.163</u>	Yield	LOW ☐ MODERATE ☐ HIGH ☒	
3 Casing Volumes =	<u>19.89</u>	Comments/Observations		
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>	Sample Time	<u>@ 1400</u>	
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>	Sample Analytes:	<u>VOCs</u>	
Total Volume of Water Removed		Heck Fe Kit	<u>mg/L</u>	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft).

	FIELD ANALYSES										
	Initial	0.25	0.50	0.75	1.0	1.25					
VOLUME PURGED (gallons)	1330	1335	1340	1345	1350	1355					
TIME (Military)	12.70	12.68	12.68	12.69	12.69	12.69					
Water Level (ft BTOC)	8.40	6.11	6.36	6.66	6.68	6.67					
pH (S.U.)	0.224	0.216	0.216	0.216	0.216	0.216					
Sp. Cond. (mS/cm)	22.27	21.63	21.53	21.57	21.50	21.48					
Water Temp. (°C)	12.60	5.30	7.41	6.08	4.29	3.92					
Turbidity (NTUs)	2.73	1.44	1.23	1.01	1.00	0.96					
DO - (mg/L)	—	—	—	—	—	—					
Salinity (ppt)	231.5	262.8	167.8	92.1	79.1	68.8					
ORP (mV)											

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	4/23/19
Field Personnel	Manah Rockwell
Site Name	UTC Delavan Spray Technologies Site
AECOM Job #	60314964
Sample ID*	MW-22D
Upgradient ☐ Downgradient ☒ Sidegradient ☐ Source ☐	
Weather Conditions	Sunny
Air Temperature	65° ° F
Total Well Depth (TWD) =	48.40 1/100 ft
Depth to Ground Water (DGW) =	12.09 1/100 ft
Length of Water Column (LWC) = TWD - DGW =	36.31 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 =	5.92 gal
3 Casing Volumes =	17.76 gal = Standard Evacuation Volume
Method of Sample Evacuation	Purge with Peristaltic Pump
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed	1.40 gal
Casing Diameter	2.0 inches
Casing Material	PVC
Measuring Point Elevation	145.96 1/100 ft
Height of Riser (above land surface)	-0.10 1/100 ft
Land Surface Elevation	146.06 1/100 ft
Screened Interval	38 - 48 1/100 ft
Dedicated Pump or Bailer	YES ☒ NO ☐ Type tubing
Steel Guard Pipe Around Casing	YES ☐ NO ☒
Locking Cap	YES ☒ NO ☐
Protective Post/Abutment	YES ☐ NO ☒
Well Integrity Satisfactory	YES ☒ NO ☐
Yield	LOW ☐ MODERATE ☒ HIGH ☐
Comments/Observations	@ 1125
Sample Time	
Sample Analytes	VOCs Dup
Hook Fe Kit	mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft)

	FIELD ANALYSES												
	Initial	0.20	0.40	0.60	0.85	1.15	1.35						
VOLUME PURGED (gallons)	10.20	10.55	11.00	11.05	11.10	11.15	11.20						
TIME (Military)	12.08	12.10	12.10	12.10	12.10	12.10	12.10						
Water Level (ft BTOC)	6.88	5.45	6.15	6.84	6.78	6.80	6.79						
pH (S.U.)	0.249	0.247	0.248	0.248	0.249	0.249	0.250						
Sp. Cond. (mS/cm)	20.73	20.52	20.61	20.78	20.74	20.74	20.76						
Water Temp. (°C)	4.88	3.41	3.34	3.21	3.66	3.17	3.43						
Turbidity (NTUs)	3.90	3.31	3.29	3.48	3.48	3.47	3.48						
DO - (mg/L)	-	-	-	-	-	-	-						
Salinity (ppt)	-	-	-	-	-	-	-						
ORP (mV)	245.4	313.1	241.4	200.9	192.0	191.7	190.3						

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min

FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) <u>April 24, 2019</u>		Casing Diameter <u>2.0</u> inches	
Field Personnel <u>Randy Morgan</u>		Casing Material <u>PVC</u>	
Site Name <u>UTC Delavan Spray Technologies Site</u>		Measuring Point Elevation <u>147.85</u> 1/100 ft	
AECOM Job # <u>60314964</u>		Height of Riser (above land surface) <u>-0.67</u> 1/100 ft	
Sample ID* <u>MW-24</u>		Land Surface Elevation <u>148.52</u> 1/100 ft	
Upgradient ☐ Downgradient ☒ Sidegradient ☐ Source ☐		Screened Interval <u>6</u> - <u>21</u> 1/100 ft	
Weather Conditions <u>mostly sunny</u>		Dedicated Pump or Bailer YES ☒ NO ☐ Type <u>tubing</u>	
Air Temperature <u>60's</u> °F		Steel Guard Pipe Around Casing YES ☒ NO ☐	
Total Well Depth (TWD) = <u>21.00</u> 1/100 ft		Locking Cap YES ☒ NO ☐	
Depth to Ground Water (DGW) = <u>13.45</u> 1/100 ft		Protective Post/Abutment YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW = <u>7.55</u> 1/100 ft		Well Integrity Satisfactory YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x <u>0.163</u> = <u>1.23</u> gal		Yield LOW ☐ MODERATE ☐ HIGH ☒	
3 Casing Volumes = <u>3.69</u> gal = Standard Evacuation Volume		Comments/Observations	
Method of Sample Evacuation <u>Purge with Peristaltic Pump</u>		Sample Time: <u>1007</u>	
Method of Sample Collection <u>Peristaltic Pump Reverse Flow for VOC'S</u>		Sample Analytes: <u>VOC'S</u>	
Total Volume of Water Removed <u>2.8</u> gal		Hack Fe Kit: <u>NA</u> mg/L	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft).

	FIELD ANALYSES							
VOLUME PURGED (gallons)	Initial	.40	.80	1.20	1.60	2.0	2.4	2.8
TIME (Military)	0930	0935	0940	0945	0950	0955	1000	1005
Water Level (ft BTOC)	13.58	13.60	13.61	13.61	13.60	13.61	13.61	13.61
pH (S.U.)	4.67	4.15	4.28	4.45	4.44	4.43	4.51	4.47
Sp. Cond. (mS/cm)	0.017	0.018	0.018	0.018	0.018	0.018	0.018	0.018
Water Temp. (°C)	18.6	18.7	18.8	19.0	19.0	19.0	19.1	19.2
Turbidity (NTUs)	22.60	125.4	33.40	43.57	30.79	7.43	5.40	5.63
DO - (mg/L)	6.15	6.20	6.17	6.08	6.05	6.18	6.15	6.09
Salinity (ppt)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ORP (mV)	287.6	322.5	315.8	251.1	301.7	312.1	314.1	311.1

COMMENTS/OBSERVATIONS Began purging at Purging rate: ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	4/23/19	Casing Diameter	2.0	inches
Field Personnel	Manah Rockwell	Casing Material	PVC	
Site Name	UTC Delavan Spray Technologies Site	Measuring Point Elevation	139.21	1/100 ft
AECOM Job #	60314964	Height of Riser (above land surface)	-0.09	1/100 ft
Sample ID*	MW-25D	Land Surface Elevation	139.30	1/100 ft
Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source ☐		Screened Interval	52 - 62	1/100 ft
Weather Conditions	Sunny	Dedicated Pump or Bailer	YES ☒ NO ☐	Type tubing
Air Temperature	50°	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	62.00	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	5.49	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	56.51	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 =	9.21	Yield	LOW ☐ MODERATE ☒ HIGH ☒	
3 Casing Volumes =	27.63	Comments/Observations	@0855	
Method of Sample Evacuation	Purge with Peristaltic Pump	Sample Time:		
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S	Sample Analytes:	VOCs	
Total Volume of Water Removed	1.20 gal	Hack Eo Kit:	mg/L	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft)

	FIELD ANALYSES												
	Initial	0.20	0.40	0.60	0.80	1.0							
VOLUME PURGED (gallons)	0824	0829	0834	0839	0844	0849							
TIME (Military)	5.50	5.50	5.50	5.50	5.50	5.50							
Water Level (ft BTOC)	8.20	7.88	7.70	7.66	7.68	7.70							
pH (S.U.)	0.249	0.248	0.248	0.248	0.248	0.248							
Sp. Cond. (mS/cm)	18.01	19.00	19.12	19.22	19.26	19.32							
Water Temp. (°C)	8.36	5.97	5.28	4.50	4.41	4.22							
Turbidity (NTUs)	3.31	3.20	3.24	3.35	3.38	3.36							
DO - (mg/L)													
Salinity (ppt)													
ORP (mV)	173.4	157.8	152.5	145.4	140.1	138.8							

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate: _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	4/23/19	Casing Diameter	2.0	inches
Field Personnel	Mariah Rockwell	Casing Material	PVC	
Site Name	UTC Delavan Spray Technologies Site	Measuring Point Elevation	143.64	1/100 ft
AECOM Job #	60314964	Height of Riser (above land surface)	-0.19	1/100 ft
Sample ID*	MW-26D	Land Surface Elevation	143.83	1/100 ft
Upgradient ☒ Downgradient ☐ Sidegradient ☐ Source ☐		Screened Interval	38 - 48	1/100 ft
Weather Conditions	Sunny	Dedicated Pump or Bailer	YES ☒ NO ☐	Type tubing
Air Temperature	60°	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	48.00	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	10.12	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	37.88	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 =	6.17	Yield	LOW ☐ MODERATE ☒ HIGH ☒	
3 Casing Volumes =	18.51	Comments/Observations	@ 1035	
Method of Sample Evacuation	Purge with Peristaltic Pump	Sample Time		
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S	Sample Analytes	VOCs	
Total Volume of Water Removed	1.50 gal	Hack Fe Kit	mg/L	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft)

	FIELD ANALYSES										
	Initial	0.25	0.50	0.75	1.0	1.25					
VOLUME PURGED (gallons)	1008	1013	1018	1023	1028	1033					
TIME (Military)	10.09	10.09	10.09	10.09	10.10	10.10					
Water Level (ft BTOC)	6.41	5.35	6.00	6.28	6.32	6.36					
pH (S.U.)	0.252	0.251	0.251	0.251	0.251	0.251					
Sp. Cond. (mS/cm)	21.06	20.35	20.27	20.52	20.46	20.44					
Water Temp. (°C)	3.98	6.69	5.94	4.18	3.95	4.67					
Turbidity (NTUs)	2.82	2.48	2.39	2.36	2.39	2.47					
DO - (mg/L)	-	-	-	-	-	-					
Salinity (ppt)	237.8	267.0	227.2	208.9	198.1	187.3					
ORP (mV)											

COMMENTS/OBSERVATIONS

Began purging at _____ Purging rate _____ ml/min



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 23, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-27
____ Upgradient ____ Downgradient ____ Sidegradient ____ Source
Weather Conditions clear / sunny
Air Temperature 60.5 ° F
Total Well Depth (TWD) = 29.00 1/100 ft
Depth to Ground Water (DGW) = 8.47 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 20.53 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 3.34 gal
3 Casing Volumes = 10.03 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.0 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation _____ 1/100 ft
Height of Riser (above land surface) _____ 1/100 ft
Land Surface Elevation _____ 1/100 ft
Screened Interval 19 - 29 1/100 ft
Dedicated Pump or Bailer YES X NO ____ Type Testing
Steel Guard Pipe Around Casing YES X NO ____
Locking Cap YES X NO ____
Protective Post/Abutment YES ____ NO X
Well Integrity Satisfactory YES X NO ____
Yield LOW ____ MODERATE ____ HIGH X
Comments/Observations
Sample Time: 1033
Sample Analytes: VOC'S
Hack Fe Kit: N/A mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	.40	.80	1.20	1.60	2.0					
1005	1010	1015	1020	1025	1030					
8.90	9.50	9.66	9.70	9.73	9.75					
6.82	5.49	5.25	5.21	5.13	5.10					
0.038	0.037	0.036	0.036	0.036	0.036					
18.2	18.7	19.0	18.9	19.0	19.1					
4.06	1.99	1.01	0.93	0.78	1.00					
5.40	5.17	5.22	5.30	5.37	5.36					
0.02	0.02	0.02	0.02	0.02	0.02					
246.6	356.8	368.8	371.9	376.3	379.8					

COMMENTS/OBSERVATIONS



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 23, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-28
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☐ Source
Weather Conditions Clear / Sunny
Air Temperature 60 °F
Total Well Depth (TWD) = 29.00 1/100 ft
Depth to Ground Water (DGW) = 12.98 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 17.02 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 2.77 gal
3 Casing Volumes = 8.32 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.40 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation _____ 1/100 ft
Height of Riser (above land surface) _____ 1/100 ft
Land Surface Elevation _____ 1/100 ft
Screened Interval 19 - 29 1/100 ft
Dedicated Pump or Bailer YES ☒ NO ☐ Type Fabrig
Steel Guard Pipe Around Casing YES ☒ NO ☐
Locking Cap YES ☒ NO ☐
Protective Post/Abutment YES ☐ NO ☒
Well Integrity Satisfactory YES ☒ NO ☐
Yield LOW ☐ MODERATE ☐ HIGH ☒
Comments/Observations _____
Sample Time 0955
Sample Analytes: VOC'S
Hack Fe Kit: NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102X LWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	1.40	1.90	1.20	1.60	2.0	2.40				
0923	0925	0933	0938	0943	0948	0953				
12.52	13.03	13.20	13.28	13.32	13.33	13.33				
8.39	7.90	7.66	7.48	7.41	7.35	7.31				
0.208	0.193	0.201	0.213	0.216	0.220	0.214				
17.9	18.4	18.6	18.7	18.8	18.9	18.9				
53.04	46.66	30.40	24.03	17.84	17.40	16.34				
2.93	1.98	1.93	1.93	1.94	1.92	1.94				
0.10	0.09	0.10	0.10	0.10	0.10	0.11				
173.3	173.9	175.2	175.1	174.1	172.6	171.3				

COMMENTS/OBSERVATIONS _____



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr) April 23, 2019
Field Personnel Randy Morgan
Site Name UTC Delavan Spray Technologies Site
AECOM Job # 60314964
Sample ID* MW-29
____ Upgradient ____ Downgradient ____ Sidegradient ____ Source
Weather Conditions clear / sunny
Air Temperature 60's ° F
Total Well Depth (TWD) = 29.00 1/100 ft
Depth to Ground Water (DGW) = 6.57 1/100 ft
Length of Water Column (LWC) = TWD - DGW = 22.43 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 = 3.65 gal
3 Casing Volumes = 10.96 gal = Standard Evacuation Volume
Method of Sample Evacuation Purge with Peristaltic Pump
Method of Sample Collection Peristaltic Pump Reverse Flow for VOC'S
Total Volume of Water Removed 2.40 gal

Casing Diameter 2.0 inches
Casing Material PVC
Measuring Point Elevation _____ 1/100 ft
Height of Riser (above land surface) _____ 1/100 ft
Land Surface Elevation _____ 1/100 ft
Screened Interval 19 - 29 1/100 ft
Dedicated Pump or Bailer YES ☒ NO ____ Type tubing
Steel Guard Pipe Around Casing YES ☒ NO ____
Locking Cap YES ☒ NO ____
Protective Post/Abutment YES ____ NO ☒
Well Integrity Satisfactory YES ☒ NO ____
Yield LOW ____ MODERATE ____ HIGH ☒
Comments/Observations
Sample Time: 1120
Sample Analytes: VOC'S
Hack Fe Kit: NA mg/L

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	1.40	1.80	1.20	1.60	2.0	2.40				
1047	1052	1057	1102	1107	1112	1117				
6.90	7.02	7.05	7.05	7.07	7.08	7.09				
5.54	5.21	5.43	5.41	5.41	5.37	5.39				
0.042	0.042	0.042	0.042	0.041	0.042	0.041				
19.5	19.9	20.0	20.0	20.0	20.2	20.1				
4.04	17.54	24.41	17.90	10.77	6.93	5.85				
1.17	1.04	1.02	1.00	1.01	1.01	0.98				
0.02	0.02	0.02	0.02	0.02	0.02	0.02				
302.1	226.5	284.3	296.8	265.7	266.9	265.0				
			276.0							

COMMENTS/OBSERVATIONS



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	<u>4/22/2019</u>
Field Personnel	<u>Marian Rockwell</u>
Site Name	<u>UTC Delavan Spray Technologies Site</u>
AECOM Job #	<u>60314964</u>
Sample ID*	<u>MW-30D</u>
☐ Upgradient ☐ Downgradient ☐ Sidegradient ☐ Source	
Weather Conditions	<u>Sunny</u>
Air Temperature	<u>75°</u> °F
Total Well Depth (TWD) =	<u>59.78</u> 1/100 ft
Depth to Ground Water (DGW) =	<u>5.04</u> 1/100 ft
Length of Water Column (LWC) = TWD - DGW =	<u>54.74</u> 1/100 ft
1 Casing Volume (OCV)* = LWC x 0.163 =	<u>8.92</u> gal
3 Casing Volumes =	<u>26.76</u> gal = Standard Evacuation Volume
Method of Sample Evacuation	<u>Purge with Peristaltic Pump</u>
Method of Sample Collection	<u>Peristaltic Pump Reverse Flow for VOC'S</u>
Total Volume of Water Removed	<u>1.20</u> gal

Casing Diameter	<u>2.0</u>	inches
Casing Material	<u>PVC</u>	
Measuring Point Elevation	<u>N/A</u>	1/100 ft
Height of Riser (above land surface)	<u>N/A</u>	1/100 ft
Land Surface Elevation	<u>N/A</u>	1/100 ft
Screened Interval	<u>49</u> - <u>59</u>	1/100 ft
Dedicated Pump or Bailer	YES ☒ NO ☐	Type <u>tubing</u>
Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Locking Cap	YES ☒ NO ☐	
Protective Post/Abutment	YES ☐ NO ☒	
Well Integrity Satisfactory	YES ☒ NO ☐	
Yield	LOW ☐ MODERATE ☒ HIGH ☐	
Comments/Observations	<u>Sample Time: @ 1555</u>	
Sample Analytes:	<u>VOC's</u>	
Hack Fe Kit	<u>mg/L</u>	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)
TIME (Military)
Water Level (ft BTOC)
pH (S.U.)
Sp. Cond. (mS/cm)
Water Temp. (°C)
Turbidity (NTUs)
DO - (mg/L)
Salinity (ppt)
ORP (mV)

Initial	0.15	0.30	0.40	0.55	0.70	0.90				
1515	1520	1525	1530	1535	1540	1545				
5.04	5.04	5.05	5.05	5.05	5.05	5.05				
5.56	5.74	6.13	6.40	6.62	6.68	6.72				
0.280	0.278	0.278	0.277	0.277	0.277	0.277				
21.50°	20.60°	20.19°	20.04°	20.11°	20.20°	20.24°				
14.17	14.12	14.19	10.44	5.82	7.00	5.73				
3.95	3.10	3.20	3.28	2.90	2.80	2.76				
-	-	-	-	-	-	-				
278.9	258.7	216.7	212.4	189.7	170.0	172.3				

COMMENTS/OBSERVATIONS



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	4/22/2019		
Field Personnel	Maniah Rockwell		
Site Name	UTC Delavan Spray Technologies Site		
AECOM Job #	60314964		
Sample ID*	MW-31D		
Upgradient	Downgradient	Sidegradient	Source
Weather Conditions	Sunny		
Air Temperature	75°	° F	
Total Well Depth (TWD) =	60.35	1/100 ft	
Depth to Ground Water (DGW) =	8.92	1/100 ft	
Length of Water Column (LWC) = TWD - DGW =	51.43	1/100 ft	
1 Casing Volume (OCV)* = LWC x 0.163	8.38	gal	
3 Casing Volumes =	25.14	gal = Standard Evacuation Volume	
Method of Sample Evacuation	Purge with Peristaltic Pump		
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S		
Total Volume of Water Removed	1.10	gal	

Casing Diameter	2.0	inches
Casing Material	PVC	
Measuring Point Elevation	N/A	1/100 ft
Height of Riser (above land surface)	N/A	1/100 ft
Land Surface Elevation	N/A	1/100 ft
Screened Interval	50 - 60	1/100 ft
Dedicated Pump or Bailer	YES ☒ NO ☐	Type tubing
Steel Guard Pipe Around Casing	YES ☒ NO ☐	
Locking Cap	YES ☒ NO ☐	
Protective Post/Abutment	YES ☐ NO ☒	
Well Integrity Satisfactory	YES ☒ NO ☐	
Yield	LOW ☐ MODERATE ☒ HIGH ☐	
Comments/Observations	@ 1638	
Sample Time	1638	
Sample Analytes:	VOCs	
Hack Fe Kit	mg/L	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h (7.48)$, where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0.15	0.35	0.55	0.65	0.85					
1608	1613	1618	1623	1628	1633					
8.92	8.94	8.94	8.95	8.95	8.95					
5.94	6.11	6.14	6.14	6.17	6.21					
0.263	0.261	0.261	0.261	0.261	0.261					
21.03	20.29	20.04	19.93	19.81	19.77					
15.41	12.91	8.48	8.99	9.76	5.23					
3.93	3.74	3.70	3.80	3.80	3.80					
-	-	-	-	-	-					
304.2	255.7	255.2	246.8	226.3	208.2					

COMMENTS/OBSERVATIONS



FIELD DATA LOG FOR GROUNDWATER SAMPLING

Page 1 of 1

Date (mo/day/yr)	4/23/19	Casing Diameter	2.0	inches
Field Personnel	Mariah Rockwell	Casing Material	PVC	
Site Name	UTC Delavan Spray Technologies Site	Measuring Point Elevation	N/A	1/100 ft
AECOM Job #	60314964	Height of Riser (above land surface)	N/A	1/100 ft
Sample ID*	MW-32DR	Land Surface Elevation	N/A	1/100 ft
Upgradient Downgradient Sidegradient Source		Screened Interval		1/100 ft
Weather Conditions	Sunny	Dedicated Pump or Bailer	YES ☒ NO ☐	Type tubing
Air Temperature	55°	Steel Guard Pipe Around Casing	YES ☐ NO ☒	
Total Well Depth (TWD) =	53.65	Locking Cap	YES ☒ NO ☐	
Depth to Ground Water (DGW) =	6.75	Protective Post/Abutment	YES ☐ NO ☒	
Length of Water Column (LWC) = TWD - DGW =	46.90	Well Integrity Satisfactory	YES ☒ NO ☐	
1 Casing Volume (OCV)* = LWC x 0.163 =	7.65	Yield	LOW ☐ MODERATE ☒ HIGH ☐	
3 Casing Volumes =	22.95	Comments/Observations	@ 0940	
Method of Sample Evacuation	Purge with Peristaltic Pump	Sample Time:	@ 0940	
Method of Sample Collection	Peristaltic Pump Reverse Flow for VOC'S	Sample Analytes:	VOC'S	
Total Volume of Water Removed	1.20 gal	Hack Fe Kit:	mg/L	

* - One casing volume (gallons) for a 0.5 inch well is 0.0102XLWC; for a 2 inch well is 0.163 X LWC; for a 4 inch well is 0.652 X LWC and for a 6 inch well is 1.468 X LWC.

Volume (in gallons) = $\pi r^2 h$ (7.48), where r is the radius (ft) and h is the height (ft).

FIELD ANALYSES

VOLUME PURGED (gallons)

TIME (Military)

Water Level (ft BTOC)

pH (S.U.)

Sp. Cond. (mS/cm)

Water Temp. (°C)

Turbidity (NTUs)

DO - (mg/L)

Salinity (ppt)

ORP (mV)

Initial	0.20	0.40	0.60	0.80	1.0					
0910	0915	0920	0925	0930	0935					
6.74	6.75	6.75	6.75	6.75	6.75					
6.95	5.61	5.99	6.22	6.25	6.23					
0.255	0.255	0.255	0.255	0.255	0.255					
18.40	18.58	18.63	18.71	18.75	18.74					
6.26	5.64	3.80	3.12	3.16	3.10					
1.89	1.21	1.37	1.62	1.70	1.78					
222.0	242.9	216.3	201.9	193.8	186.6					

COMMENTS/OBSERVATIONS

IDW MANAGEMENT FORM

PROJECT: UTC Delavan Spray Technologies Site RI

SITE NAME: Delavan Spray Technologies Site

LOCATION: Bamberg, South Carolina

PROJECT #: 60314964

[illegible]

14

9/26/18.

345pm LAlexander & TRenn d/b to
of Delavan property. Mob
back to Greenville.

- UTC Delavan GW Sample Event - 15

Apr 22, 2019

Marian Rockwell

0900 Met Randy Morgan @ McDonald's
in Orangeburg - Calibrate VST.

0920 Health / Safety Meeting

1000 Arrived @ UTC Delavan.

1010 Checked into front desk.

1030 Begin opening wells to release
pressure. Talked to Kinsey's @ ^{Kinsey} ~~Spoke~~

1240 Started taking water levels.

1420 finished water levels.

split equipment 3. Cho-
which wells to sample.

1515 Began purging @ MW-30D

1555 Sampled @ MW-30D

1608 Began purge @ MW-31D

1638 Sampled @ MW-31D

1655 Decon equipment / ~~Blank~~ ^{TRIP 1}

1705 Check out of site, dump
purge water @ TRW bly

1750 Arrive @ hotel.

Marian Rockwell 4/22/19

16

cont. GW Sample

4/23/19

M. Rockwell

- 0640 Leave hotel in Orangeburg
 0720 Arrive @ UTC Delaware site
 0725 Began calibrating YSI.
 4/5 meeting w/ Randy Nerga.
 0740 Check into facility.
 0800 Checked MW-30D
 to be sure closed.
 0812 Start setting up @ MW 25D
 0824 Began purging water
 0855 Sampled @ MW-25D
 0910 Began Purging @ MW 32D
 0940 Sampled @ MW-32D
 1008 Began purging @ MW 26D
 1035 Sampled @ MW-26D
 1050 Began purging MW 22D
 1125 Sampled @ MW-22D & dup
~~Go to IDW bldg to dump~~
 1140 ~~water~~ Began purging MW-14
 1220 Sampled @ MW-14D
 1225 Began purging MW-14D
 1250 Sampled @ MW-14D & dup
 1255 Went to gas station for restroom
 Pumped 11.0 @ 12.5 and more ice & break Ann Hea
 1330 Began purging MW-21D
 1400 Sampled @ MW-21D

17

- 1430 Began purging MW-10
 1510 Sampled @ MW-10
 ↳ issue w/ YSI readings
 1520 Began purging MW-21
 1600 Sampled @ MW-21
 ↳ issue w/ YSI readings
 1615 Dumped purge water
 @ IDW bldg
 1630 Began to decon equipment
 and secure samples.
 1700 Checked out of facility
 and off site.
 1745 Arrived back @ hotel

M. Rockwell
 4/23/19

18

4/24/19

UTC Delavan
cont. GW sample

M. Rockwell

- 0645 Check out of hotel.
 0725 Arrive @ UTC Delavan.
 met Randy Morgan.
 0735 Began calibrating YSI.
 0755 Check into facility.
 0805 Began purging MW-1
 0835 Sampled @ MW-1
 0850 Began purging MW-8
 0920 Sampled @ MW-8
 → when reversed flow,
 debris in tubing went into
 sample bottles
 0935 Began purging MW-5
 1010 Sampled @ MW-5
 1100 Began residential well
 sampling w/ Randy
 1400 Completed residential
 sampling.
 1430 Check out of facility and
 clean / secure equipment
 offsite.
 1700 Arrive at AECOM office.

M. Rockwell
 4/24/19

11-2-18 UTC Bamberg SC Residential Sampling
giving permission to collect sample at
232 Orange Grove Rd.
1430 at 232 Orange Grove Rd - purge
well ~ 5 minutes then collect sample
from spigot at well head.
1430 sampled 232 OGR
* No contact made for
649 LCR - and they have dog
roaming yard - No Sample this event
438 BBR - No contact made
No Sample this event.
698 LCR - Pump does not work
No Sample this event.
1440 leave Bamberg SC for
Shealy Labs to relinquish samples
1515 lunch in Orangeburg
1620 relinquish samples to Shealy Lab.
will return to Greenville SC
11/3-18 and return equipment then.

Randy Merg

11-2-18

UTC Delavan Bamberg SC 7-22-2019 (89)

0630 pick up equipment
0849 arrive in Orangeburg SC
0900 begin to calibrate both water
quality meters (1) YSI 556 S/N
05B1017AF and Pro Plus S/N
3731
0910 Mariah arrives
0925 Complete calibrating water
quality meters
0930 leave for UTC Bamberg SC
1010 arrive on site - sign in, New
DP number given due to Collins ^{took} oversite
Rhonda issues badges to us - Randy's gets
access into bldg to sample wells inside
Mariah's only visitor's badge. Confirm
where to put IDW drums - same as past.
New contact on site Melinda Washington
go to drum storage area to unload drum
the old drums of IDW still on site
Spoke to Melinda about the IDW said
she will take care of it. A Vac truck is
on site now repairing other IDW. Called
Leslee to tell her the drums were still on site.
1035 begin to open wells to equilibrate
Spoke to Kinsey's to get permission to

4-22-2019 Randy Merg

(90) 4-22-19 LTC Delavan Bamberg SC

check wells on their property. OK to check. Called Mr Bamberg to get OK to check wells on his property - OK to check wells. The Bamberg property has been clear ^{2nd} cut of all trees.

1237 begin collecting water levels

1419 complete water levels except for MW-15 cluster and MW-19 & 20 will complete these today when sampling the wells.

1445 off site to purchase ice for sample coolers. Divide up equipment, bottle care.

1505 Randy out MW-15 area, carry equipment across creek to wells

1520 begin purging MW-15 and collecting water levels at MW-15, 15D, MW-15D.

1557 sampled MW-15 - carry equipment back across creek to truck

1620 empty, purge water into new 55 gals steel drum. All old IDW has been pumped out of drums and (6) old drums remain on site.

1628 carry equipment into bldg to purge & sample MW-19 & 20.

1639 at MW-19 begin to micro purge

1705 Sampled MW-19

4-22-19 Randy Meyer

4-22-19 LTC Delavan Bamberg SC (91)

1725 at MW-20 begin to micro purge

1752 Sampled MW-20 - carry equipment back out of bldg to the truck.

1810 empty, purge water into drum #1

1817 Secure drum - secure door to drum storage. Turn in badge to 2nd shift supervisor. Spike to Lesdee about old drums.

They need to be checked before re-using also need to check w/ Melinda about their plans on ~~disposal~~ ⁴⁻²²⁻¹⁹ disposal of drums or re-using.

1830 Make sure Bamberg gates are secured.

1835 leave for Motel Orangeburg SC

Samples stored on ice in secure location - with trip blanks in each cooler, until shipped.

Trip Blank-1 Randy's cooler samples

Trip Blank-2 Mariah's cooler samples

Randy Meyer 4-22-2019

(92) 4-23-19 UTC Delavan

0640 leave for UTC Delavan
0710 arrive on site
0715 begin to calibrate YSI Pro Plus
S/N 5731 see ^{2m}log calibration Log
for details
0730 complete calibration
0745 sign in at office
0750 H + S briefing
0803 at MW-12D begin to purge w/
dedicated tubing Ph & Conductivity take
a while to stabilize ~ 1 hour
0910 Sampled MW-12D
0923 at MW-28 begin to micro purge
0955 Sampled MW-28
1005 at MW-27 begin to micro purge
1033 Sampled MW-27
1047 at MW-29 begin to micro purge
1120 Sampled MW-29
1133 at MW-13D begin to micro purge
1210 Sampled MW-13D
1215 empty purge water into drum
1225 purchase ice to pack samples to ship
1243 at MW-9 begin to micro purge
1320 Sampled MW-9 ms/msd
1338 at MW-3D begin to micro purge
4-23-2019 Randy Morgan

4-23-19 UTC Delavan

(93)

1410 Sampled MW 3D also ms/msd
pack cooler for Fed Ex to pickup
1452 at MW-3 begin to micro purge
1515 Sampled MW-3
* Trip Bank 4 Randy's cooler
* Trip Bank 3 Mariah's cooler
1545 Fed Ex arrive relinquish
samples to Fed Ex.
1600 Randy returns badge and leaves
site to check to see what it will
take to repair a GAC storage bldg
that came apart at 410 LCR. The
GAC system will have to be remove to
put bldg back together. Call Leslee
to inform her of this information.
1730 end of day.

Randy Morgan

4.23.19

4-24-19
(94)

UTC Delavan

0645 leave for UTC Delavan
 0710 purchase ice for sample coolers
 0716 on site calibrating YSI ProPlus
 water quality meter s/n 3731
 see calibration log for details
 0736 complete calibration
 0745 sign in & ^{receive} bridge
 0800 at MW-16 ^{begin} to micro purge
 0832 sampled MW-16
 0852 at MW-7 begin to micro purge
 0925 sampled MW-7
 0930 at MW-24 begin to micro purge
 1007 sampled MW-24
 1015 empty purge water into steel drum
 1025 collect IDW-1 from the (1)
 drum we filled 100% this event
 1040 returned badges to office sign out
 1045 prepare to start Residential sampling
 1100 drive by 13 LCT saw Mo. Hooper
 out side - will begin here sampling
 Turn on faucet at back of the house
 at chain link fence - purge first
 1105 sampled 13 LCT at facet directly
 1110 at 34B LCR No one home the
 dog is chained and in fenced area
 4-24-19 Randy Mergo

UTC Delavan

4-24-19 (95)

Purged ~~at~~ first before sampling
 1115 collect sample from directly from
 faucet.
 1120 at 410 LCR
 1125 collected 410 LCR-Pre out of
 sample port at Tank #1
 1130 collected 410 LCR-Post out of
 sample port at Tank #2
 The markings for these are on the back
 of the bldg which at this time is on
 the ground due to hurricane - 6 months
 ago need professional to rebuild it.
 1135 at 448 LCR spoke to Michele
 Sanders earlier and the dogs are put up.
 1140 at 448 LCR collect Pre sample
 out of sample port on tank #1
 1145 collect 448 LCR-Post out of
 sample port on tank #2.
 1150 at 546 LCR-A to collect sample
 out of Tank #1 for 546 LCR-A-PRE
 1155 collect sample 546 LCR-A-Post
 out of Tank #2 sample port.
 1205 at 546 LCR-B-Pre to collect
 sample out of Tank #1 sample port.
 1210 at 546 LCR-B-Post to collect
 sample out of tank #2 sample port.
 4-24-2019 Randy Mergo

4 (96) 4-24-2019 UTC Delavan

The doors to the bldg at 546 LCR-B were off and on the ground. I put them back on the bldg.

1225 at 684 LCR-PRE to collect sample out of tank #1 sample port

1230 at 684 LCR-Post to collect sample out of tank #2 sample port

No one was home at 684 LCR.

1240 at 689 LCR - the well had to be replaced and the pump house had to be removed causing the treatment system having to be disconnected from the well and not being reconnected.

No sampling of the treatment system
Lester Alexander said we could go ahead and sample the well directly

1250 at 715 LCR - this well is back in service and is the first time we have sampled this well.

1250 collected 715 LCR out of spigot at front of mobile home - purge first.

1255 back at 689 LCR to collect sample out of spigot at well head. The treatment system will be put back in operation soon in near future.

4-24-2019 Randy Mayo

UTC Delavan

4-24-2019

1300 at 743 LCR a new well pump house has been install - did not effect treatment system.

1305 collect 743 LCR-PRE out of tank #1 sample port

1310 collect 743 LCR-Post out of tank #2 sample port.

* 698 LCR is not in operation. The mobile home has been removed from the site at this time.

1320 take Mariah back to her truck at the UTC site.

1330 leave to go pick samples in Orangeburg SC and to complete CUC.

1535 relinquish samples to Shealy Environmental in West Columbia SC.

1545 ship samples from UTC wells Fed EX in Columbia SC.

1600 return to Greenville SC

1740 return equipment

1800 at AECOM office.

Randy Mayo
4-24-2019

APPENDIX C

ANALYTICAL DATA

Laboratory Reports – Accutest Southeast

Data Assessment Reports

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

United Technologies Corporation

AECOMSCG: Delavan Spray Technologies; Bamberg, SC

60601833.1

SGS Job Number: FA63569

Sampling Dates: 04/22/19 - 04/23/19

Report to:

AECOM Environment
10 Patewood Dr Bldg VI, Suite 500
Greenville, SC 29615
doria.cullom@aecom.com

ATTN: Doria Cullom

Total number of pages in report: **88**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.

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Sample Summary

United Technologies Corporation

Job No: FA63569

AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Project No: 60601833.1

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA63569-1	04/22/19	00:00	RMMR04/24/19	AQ	Trip Blank Water	TRIP BLANK-1
FA63569-2	04/22/19	00:00	RMMR04/24/19	AQ	Trip Blank Water	TRIP BLANK-2
FA63569-3	04/22/19	15:55	RMMR04/24/19	AQ	Ground Water	MW-30D
FA63569-4	04/22/19	15:57	RMMR04/24/19	AQ	Ground Water	MW-15
FA63569-5	04/22/19	16:38	RMMR04/24/19	AQ	Ground Water	MW-31D
FA63569-6	04/22/19	17:05	RMMR04/24/19	AQ	Ground Water	MW-19
FA63569-7	04/22/19	17:52	RMMR04/24/19	AQ	Ground Water	MW-20
FA63569-8	04/23/19	08:55	RMMR04/24/19	AQ	Ground Water	MW-25D
FA63569-9	04/23/19	09:10	RMMR04/24/19	AQ	Ground Water	MW-12D
FA63569-10	04/23/19	09:40	RMMR04/24/19	AQ	Ground Water	MW-32DR
FA63569-11	04/23/19	09:55	RMMR04/24/19	AQ	Ground Water	MW-28
FA63569-12	04/23/19	10:33	RMMR04/24/19	AQ	Ground Water	MW-27
FA63569-13	04/23/19	10:35	RMMR04/24/19	AQ	Ground Water	MW-26D



Sample Summary
(continued)

United Technologies Corporation

Job No: FA63569

AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Project No: 60601833.1

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA63569-14	04/23/19	11:20	RMMR04/24/19	AQ	Ground Water	MW-29
FA63569-15	04/23/19	11:25	RMMR04/24/19	AQ	Ground Water	MW-22D
FA63569-16	04/23/19	11:25	RMMR04/24/19	AQ	Ground Water	MW-22D-A
FA63569-17	04/23/19	12:10	RMMR04/24/19	AQ	Ground Water	MW-13D
FA63569-18	04/23/19	12:20	RMMR04/24/19	AQ	Ground Water	MW-14
FA63569-19	04/23/19	12:50	RMMR04/24/19	AQ	Ground Water	MW-14D
FA63569-20	04/23/19	12:50	RMMR04/24/19	AQ	Ground Water	MW-14D-A
FA63569-21	04/23/19	13:20	RMMR04/24/19	AQ	Ground Water	MW-9
FA63569-21D	04/23/19	13:20	RMMR04/24/19	AQ	Water Dup/MSD	MW-9
FA63569-21S	04/23/19	13:20	RMMR04/24/19	AQ	Water Matrix Spike	MW-9
FA63569-23	04/23/19	14:00	RMMR04/24/19	AQ	Ground Water	MW-21D
FA63569-24	04/23/19	14:10	RMMR04/24/19	AQ	Ground Water	MW-3D
FA63569-24D	04/23/19	14:10	RMMR04/24/19	AQ	Water Dup/MSD	MW-3D



Sample Summary
(continued)

United Technologies Corporation

Job No: FA63569

AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Project No: 60601833.1

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
FA63569-24S	04/23/19	14:10	RMMR04/24/19	AQ Water Matrix Spike	MW-3D
FA63569-25	04/23/19	09:40	RMMR04/24/19	AQ Ground Water	MW-32DR-A

SAMPLE DELIVERY GROUP CASE NARRATIVE

2

Client: United Technologies Corporation

Job No: FA63569

Site: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Report Date 4/30/2019 9:01:36 PM

22 Samples, 2 Trip Blanks were collected between 04/22/2019 and 04/23/2019 and were received at SGS North America Inc - Orlando on 04/24/2019 properly preserved, at 4 Deg. C and intact. These Samples received an SGS Orlando job number of FA63569. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260B

Matrix: AQ

Batch ID: VP2428

All samples were analyzed within the recommended method holding time.

Sample(s) FA63569-21MS, FA63569-21MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

FA63569-1 for Chloroethane: Associated CCV outside control limits low.

FA63569-1 for Methyl Bromide: Associated CCV outside control limits low.

FA63569-2 for Chloroethane: Associated CCV outside control limits low.

FA63569-2 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-2: Sample was not preserved to a pH < 2.

FA63569-3 for Chloroethane: Associated CCV outside control limits low.

FA63569-3 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-3: Sample was not preserved to a pH < 2.

FA63569-4 for Chloroethane: Associated CCV outside control limits low.

FA63569-4 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-4: Sample was not preserved to a pH < 2.

FA63569-5 for Chloroethane: Associated CCV outside control limits low.

FA63569-5 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-5: Sample was not preserved to a pH < 2.

FA63569-6 for Chloroethane: Associated CCV outside control limits low.

FA63569-6 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-6: Sample was not preserved to a pH < 2.

FA63569-7 for Chloroethane: Associated CCV outside control limits low.

FA63569-7 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-7: Sample was not preserved to a pH < 2.

FA63569-8 for Chloroethane: Associated CCV outside control limits low.

FA63569-8 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-8: Sample was not preserved to a pH < 2.

FA63569-9 for Chloroethane: Associated CCV outside control limits low.

FA63569-9 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-9: Sample was not preserved to a pH < 2.

FA63569-10 for Chloroethane: Associated CCV outside control limits low.

FA63569-10 for Methyl Chloride: Associated CCV outside control limits high.

FA63569-10: Sample was not preserved to a pH < 2.

Matrix: AQ

Batch ID: VP2429

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63369-43MS, FA63369-43MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 1,1-Dichloroethylene are outside control limits. Probable cause is due to matrix interference.

RPD(s) for MSD for Methyl Bromide are outside control limits for sample FA63369-43MSD. Probable cause is due to sample non-homogeneity.

FA63569-1: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values. Sample was not preserved to pH > 2.

FA63569-1 for Methyl Chloride: Associated CCV outside of control limits high, sample was ND.

FA63569-9: Sample was not preserved to a pH < 2.

FA63569-21 for Methyl Bromide: Associated CCV outside of control limits low.

FA63569-21 for Methyl Chloride: Associated CCV outside of control limits high, sample was ND.

FA63569-21 for Chloroethane: Associated CCV outside of control limits low.

Matrix: AQ

Batch ID: VP2430

All samples were analyzed within the recommended method holding time.

Sample(s) FA63569-24MS, FA63569-24MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

FA63569-15: Sample was not preserved to a pH < 2.

FA63569-16: Sample was not preserved to a pH < 2.

FA63569-17: Sample was not preserved to a pH < 2.

FA63569-14: Sample was not preserved to a pH < 2.

FA63569-18: Sample was not preserved to a pH < 2.

FA63569-11: Sample was not preserved to a pH < 2.

FA63569-25: Sample was not preserved to a pH < 2.

FA63569-13: Sample was not preserved to a pH < 2.

FA63569-19: Sample was not preserved to a pH < 2.

FA63569-24: Sample was not preserved to a pH < 2.

FA63569-12: Sample was not preserved to a pH < 2.

FA63569-20: Sample was not preserved to a pH < 2.

FA63569-25 for Chloroethane: Associated CCV outside of control limits low.

FA63569-24 for Chloroethane: Associated CCV outside of control limits low.

FA63569-16 for Chloroethane: Associated CCV outside of control limits low.

FA63569-17 for Chloroethane: Associated CCV outside of control limits low.

FA63569-18 for Chloroethane: Associated CCV outside of control limits low.

FA63569-13 for Chloroethane: Associated CCV outside of control limits low.

FA63569-14 for Chloroethane: Associated CCV outside of control limits low.

FA63569-11 for Chloroethane: Associated CCV outside of control limits low.

FA63569-20 for Chloroethane: Associated CCV outside of control limits low.

FA63569-15 for Chloroethane: Associated CCV outside of control limits low.

FA63569-12 for Chloroethane: Associated CCV outside of control limits low.

FA63569-19 for Chloroethane: Associated CCV outside of control limits low.

Matrix: AQ

Batch ID: VP2431

All samples were analyzed within the recommended method holding time.

Sample(s) FA63460-4MS, FA63460-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for 1,1-Dichloroethylene, 1,1-Dichloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD(s) for MSD for 2-Hexanone are outside control limits for sample FA63460-4MSD. Probable cause is due to sample non-homogeneity.

FA63569-17: Sample was not preserved to a pH < 2.

FA63569-23: Sample was not preserved to a pH < 2.

FA63569-23 for Chloroethane: Associated CCV outside control limits low.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Ariel Hartney, Client Services (Signature on File)

Summary of Hits

Page 1 of 3

Job Number: FA63569
Account: United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Collected: 04/22/19 thru 04/23/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

FA63569-1 TRIP BLANK-1

No hits reported in this sample.

FA63569-2 TRIP BLANK-2

No hits reported in this sample.

FA63569-3 MW-30D

1,1-Dichloroethylene ^a	2.4	2.0	0.64	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	1.0 J	2.0	0.55	ug/l	SW846 8260B
Tetrachloroethylene ^a	149	2.0	0.43	ug/l	SW846 8260B

FA63569-4 MW-15

No hits reported in this sample.

FA63569-5 MW-31D

1,1-Dichloroethylene ^a	4.0	2.5	0.81	ug/l	SW846 8260B
Tetrachloroethylene ^a	232	2.5	0.54	ug/l	SW846 8260B

FA63569-6 MW-19

Tetrachloroethylene ^a	24400	250	54	ug/l	SW846 8260B
1,1,1-Trichloroethane ^a	95.2 J	250	62	ug/l	SW846 8260B

FA63569-7 MW-20

Tetrachloroethylene ^a	466	5.0	1.1	ug/l	SW846 8260B
Trichloroethylene ^a	3.6 J	5.0	1.7	ug/l	SW846 8260B

FA63569-8 MW-25D

1,1-Dichloroethylene ^a	3.1	2.0	0.64	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	1.0 J	2.0	0.55	ug/l	SW846 8260B
Tetrachloroethylene ^a	195	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^a	1.2 J	2.0	0.69	ug/l	SW846 8260B

FA63569-9 MW-12D

1,1-Dichloroethylene ^a	1.2	1.0	0.32	ug/l	SW846 8260B
Tetrachloroethylene ^a	92.1	2.0	0.43	ug/l	SW846 8260B

Summary of Hits

Job Number: FA63569
Account: United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Collected: 04/22/19 thru 04/23/19

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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FA63569-10 MW-32DR

1,1-Dichloroethylene ^a	0.62 J	1.0	0.32	ug/l	SW846 8260B
Tetrachloroethylene ^a	33.9	1.0	0.22	ug/l	SW846 8260B
Trichloroethylene ^a	0.60 J	1.0	0.35	ug/l	SW846 8260B

FA63569-11 MW-28

No hits reported in this sample.

FA63569-12 MW-27

No hits reported in this sample.

FA63569-13 MW-26D

1,1-Dichloroethylene ^a	1.3	1.0	0.32	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	0.79 J	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^a	89.9	1.0	0.22	ug/l	SW846 8260B
Trichloroethylene ^a	1.2	1.0	0.35	ug/l	SW846 8260B

FA63569-14 MW-29

No hits reported in this sample.

FA63569-15 MW-22D

1,1-Dichloroethylene ^a	1.6 J	2.0	0.64	ug/l	SW846 8260B
Tetrachloroethylene ^a	133	2.0	0.43	ug/l	SW846 8260B

FA63569-16 MW-22D-A

1,1-Dichloroethylene ^a	2.1	2.0	0.64	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	0.60 J	2.0	0.55	ug/l	SW846 8260B
Tetrachloroethylene ^a	167	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^a	0.94 J	2.0	0.69	ug/l	SW846 8260B

FA63569-17 MW-13D

1,1-Dichloroethylene ^a	3.2	1.0	0.32	ug/l	SW846 8260B
Tetrachloroethylene ^a	170	5.0	1.1	ug/l	SW846 8260B
1,1,1-Trichloroethane ^a	0.93 J	1.0	0.25	ug/l	SW846 8260B

Summary of Hits

Job Number: FA63569
Account: United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Collected: 04/22/19 thru 04/23/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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FA63569-18 MW-14

No hits reported in this sample.

FA63569-19 MW-14D

1,1-Dichloroethylene ^a	0.99 J	1.0	0.32	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	0.51 J	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^a	80.6	1.0	0.22	ug/l	SW846 8260B
Trichloroethylene ^a	0.62 J	1.0	0.35	ug/l	SW846 8260B

FA63569-20 MW-14D-A

1,1-Dichloroethylene ^a	1.0	1.0	0.32	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	0.44 J	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^a	75.9	1.0	0.22	ug/l	SW846 8260B
Trichloroethylene ^a	0.53 J	1.0	0.35	ug/l	SW846 8260B

FA63569-21 MW-9

cis-1,2-Dichloroethylene	9.6	5.0	1.4	ug/l	SW846 8260B
Tetrachloroethylene	513	25	5.4	ug/l	SW846 8260B
Trichloroethylene	47.1	5.0	1.7	ug/l	SW846 8260B

FA63569-23 MW-21D

1,1-Dichloroethylene ^a	1.2	1.0	0.32	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	0.44 J	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^a	38.7	1.0	0.22	ug/l	SW846 8260B

FA63569-24 MW-3D

1,1-Dichloroethylene ^a	5.6	5.0	1.6	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	7.4	5.0	1.4	ug/l	SW846 8260B
Tetrachloroethylene ^a	296	5.0	1.1	ug/l	SW846 8260B
Trichloroethylene ^a	9.0	5.0	1.7	ug/l	SW846 8260B

FA63569-25 MW-32DR-A

1,1-Dichloroethylene ^a	0.59 J	1.0	0.32	ug/l	SW846 8260B
Tetrachloroethylene ^a	29.9	1.0	0.22	ug/l	SW846 8260B
Trichloroethylene ^a	0.52 J	1.0	0.35	ug/l	SW846 8260B

(a) Sample was not preserved to a pH < 2.



Orlando, FL

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TRIP BLANK-1	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-1	Date Received:	04/24/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P63059.D	1	04/26/19 02:09	AJ	n/a	n/a	VP2428
Run #2 ^a	P63082.D	1	04/26/19 14:28	AJ	n/a	n/a	VP2429

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride ^c	ND ^d	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-1	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-1	Date Received:	04/24/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	94%	95%	79-125%
2037-26-5	Toluene-D8	102%	102%	85-112%
460-00-4	4-Bromofluorobenzene	102%	96%	83-118%

- (a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values. Sample was not preserved to pH > 2.
- (b) Associated CCV outside control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.
- (d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-2	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-2	Date Received:	04/24/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63060.D	1	04/26/19 02:34	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride ^c	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-2	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-2	Date Received:	04/24/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside control limits low.
 (c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-30D	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-3	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63061.D	2	04/26/19 02:59	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane ^b	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	2.4	2.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.0	2.0	0.55	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride ^c	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	149	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-30D	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-3	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside control limits low.
 (c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-4	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63062.D	1	04/26/19 03:24	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride ^c	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-4	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside control limits low.

(c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-31D	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-5	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63063.D	2.5	04/26/19 03:49	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	63	25	ug/l	
71-43-2	Benzene	ND	2.5	0.78	ug/l	
75-27-4	Bromodichloromethane	ND	2.5	0.61	ug/l	
75-25-2	Bromoform	ND	2.5	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	13	5.0	ug/l	
75-15-0	Carbon Disulfide	ND	5.0	1.3	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.5	0.89	ug/l	
108-90-7	Chlorobenzene	ND	2.5	0.50	ug/l	
75-00-3	Chloroethane ^b	ND	5.0	1.7	ug/l	
67-66-3	Chloroform	ND	2.5	0.75	ug/l	
124-48-1	Dibromochloromethane	ND	2.5	0.69	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.5	0.85	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.5	0.78	ug/l	
75-35-4	1,1-Dichloroethylene	4.0	2.5	0.81	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.5	0.69	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.5	0.55	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.5	1.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.73	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.54	ug/l	
100-41-4	Ethylbenzene	ND	2.5	0.89	ug/l	
591-78-6	2-Hexanone	ND	25	5.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	5.0	1.5	ug/l	
74-87-3	Methyl Chloride ^c	ND	5.0	1.3	ug/l	
75-09-2	Methylene Chloride	ND	13	5.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	13	2.5	ug/l	
100-42-5	Styrene	ND	2.5	0.56	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.75	ug/l	
127-18-4	Tetrachloroethylene	232	2.5	0.54	ug/l	
108-88-3	Toluene	ND	2.5	0.75	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.62	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.5	1.2	ug/l	
79-01-6	Trichloroethylene	ND	2.5	0.86	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-31D	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-5	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.5	1.0	ug/l	
1330-20-7	Xylene (total)	ND	7.5	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside control limits low.

(c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-19	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-6	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63064.D	250	04/26/19 04:14	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6300	2500	ug/l	
71-43-2	Benzene	ND	250	78	ug/l	
75-27-4	Bromodichloromethane	ND	250	61	ug/l	
75-25-2	Bromoform	ND	250	100	ug/l	
78-93-3	2-Butanone (MEK)	ND	1300	500	ug/l	
75-15-0	Carbon Disulfide	ND	500	130	ug/l	
56-23-5	Carbon Tetrachloride	ND	250	89	ug/l	
108-90-7	Chlorobenzene	ND	250	50	ug/l	
75-00-3	Chloroethane ^b	ND	500	170	ug/l	
67-66-3	Chloroform	ND	250	75	ug/l	
124-48-1	Dibromochloromethane	ND	250	69	ug/l	
75-34-3	1,1-Dichloroethane	ND	250	85	ug/l	
107-06-2	1,2-Dichloroethane	ND	250	78	ug/l	
75-35-4	1,1-Dichloroethylene	ND	250	81	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	250	69	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	250	55	ug/l	
78-87-5	1,2-Dichloropropane	ND	250	110	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	250	73	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	250	54	ug/l	
100-41-4	Ethylbenzene	ND	250	89	ug/l	
591-78-6	2-Hexanone	ND	2500	500	ug/l	
74-83-9	Methyl Bromide ^b	ND	500	150	ug/l	
74-87-3	Methyl Chloride ^c	ND	500	130	ug/l	
75-09-2	Methylene Chloride	ND	1300	500	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1300	250	ug/l	
100-42-5	Styrene	ND	250	56	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	75	ug/l	
127-18-4	Tetrachloroethylene	24400	250	54	ug/l	
108-88-3	Toluene	ND	250	75	ug/l	
71-55-6	1,1,1-Trichloroethane	95.2	250	62	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	250	120	ug/l	
79-01-6	Trichloroethylene	ND	250	86	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-19	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-6	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	250	100	ug/l	
1330-20-7	Xylene (total)	ND	750	180	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	93%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside control limits low.

(c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-20	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-7	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63065.D	5	04/26/19 04:39	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
71-43-2	Benzene	ND	5.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.2	ug/l	
75-25-2	Bromoform	ND	5.0	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	25	10	ug/l	
75-15-0	Carbon Disulfide	ND	10	2.7	ug/l	
56-23-5	Carbon Tetrachloride	ND	5.0	1.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane ^b	ND	10	3.3	ug/l	
67-66-3	Chloroform	ND	5.0	1.5	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.6	ug/l	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.6	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.1	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.8	ug/l	
591-78-6	2-Hexanone	ND	50	10	ug/l	
74-83-9	Methyl Bromide ^b	ND	10	2.9	ug/l	
74-87-3	Methyl Chloride ^c	ND	10	2.5	ug/l	
75-09-2	Methylene Chloride	ND	25	10	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	5.0	ug/l	
100-42-5	Styrene	ND	5.0	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
127-18-4	Tetrachloroethylene	466	5.0	1.1	ug/l	
108-88-3	Toluene	ND	5.0	1.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.3	ug/l	
79-01-6	Trichloroethylene	3.6	5.0	1.7	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-20	Date Sampled:	04/22/19
Lab Sample ID:	FA63569-7	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	5.0	2.0	ug/l	
1330-20-7	Xylene (total)	ND	15	3.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside control limits low.

(c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-25D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-8	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63066.D	2	04/26/19 05:05	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane ^b	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	3.1	2.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.0	2.0	0.55	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride ^c	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	195	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	1.2	2.0	0.69	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-25D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-8	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	91%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside control limits low.
 (c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-9	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63067.D	1	04/26/19 05:30	AJ	n/a	n/a	VP2428
Run #2 ^a	P63096.D	2	04/26/19 20:20	AJ	n/a	n/a	VP2429

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	1.2	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride ^c	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	92.1 ^d	2.0	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-12D	Date Sampled: 04/23/19
Lab Sample ID: FA63569-9	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	93%	93%	79-125%
2037-26-5	Toluene-D8	101%	100%	85-112%
460-00-4	4-Bromofluorobenzene	98%	100%	83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside control limits low.
 (c) Associated CCV outside control limits high.
 (d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-32DR	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-10	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63068.D	1	04/26/19 05:55	AJ	n/a	n/a	VP2428
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.62	1.0	0.32	ug/l	J
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride ^c	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	33.9	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	0.60	1.0	0.35	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-32DR	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-10	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	95%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside control limits low.
 (c) Associated CCV outside control limits high.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-28	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-11	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63112.D	1	04/27/19 03:00	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-28	Date Sampled: 04/23/19
Lab Sample ID: FA63569-11	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	93%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-27	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-12	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63113.D	1	04/27/19 03:25	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-27	Date Sampled: 04/23/19
Lab Sample ID: FA63569-12	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	104%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-26D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-13	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63114.D	1	04/27/19 03:50	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	1.3	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.79	1.0	0.28	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	89.9	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	1.2	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-26D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-13	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	93%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-29	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-14	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63115.D	1	04/27/19 04:15	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-29	Date Sampled: 04/23/19
Lab Sample ID: FA63569-14	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-22D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-15	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63116.D	2	04/27/19 04:41	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane ^b	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	1.6	2.0	0.64	ug/l	J
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.55	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	133	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-22D	Date Sampled: 04/23/19
Lab Sample ID: FA63569-15	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-22D-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-16	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63117.D	2	04/27/19 05:06	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane ^b	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	2.1	2.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.60	2.0	0.55	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	167	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	0.94	2.0	0.69	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-22D-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-16	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-17	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63118.D	1	04/27/19 05:31	AJ	n/a	n/a	VP2430
Run #2 ^a	P63137.D	5	04/27/19 14:08	AJ	n/a	n/a	VP2431

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	3.2	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	170 ^c	5.0	1.1	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	0.93	1.0	0.25	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-13D	Date Sampled: 04/23/19
Lab Sample ID: FA63569-17	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	79-125%
2037-26-5	Toluene-D8	100%	101%	85-112%
460-00-4	4-Bromofluorobenzene	98%	99%	83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-18	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63119.D	1	04/27/19 05:56	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-18	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

- (a) Sample was not preserved to a pH < 2.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-19	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63120.D	1	04/27/19 06:21	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.99	1.0	0.32	ug/l	J
156-59-2	cis-1,2-Dichloroethylene	0.51	1.0	0.28	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	80.6	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	0.62	1.0	0.35	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-19	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14D-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-20	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63121.D	1	04/27/19 06:46	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	1.0	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.44	1.0	0.28	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	75.9	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	0.53	1.0	0.35	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14D-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-20	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	92%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-21	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P63078.D	5	04/26/19 12:48	AJ	n/a	n/a	VP2429
Run #2	P63056.D	25	04/26/19 00:54	AJ	n/a	n/a	VP2428

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
71-43-2	Benzene	ND	5.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.2	ug/l	
75-25-2	Bromoform	ND	5.0	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	25	10	ug/l	
75-15-0	Carbon Disulfide	ND	10	2.7	ug/l	
56-23-5	Carbon Tetrachloride	ND	5.0	1.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane ^a	ND	10	3.3	ug/l	
67-66-3	Chloroform	ND	5.0	1.5	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.6	ug/l	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.6	ug/l	
156-59-2	cis-1,2-Dichloroethylene	9.6	5.0	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.1	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.8	ug/l	
591-78-6	2-Hexanone	ND	50	10	ug/l	
74-83-9	Methyl Bromide ^a	ND	10	2.9	ug/l	
74-87-3	Methyl Chloride ^b	ND	10	2.5	ug/l	
75-09-2	Methylene Chloride	ND	25	10	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	5.0	ug/l	
100-42-5	Styrene	ND	5.0	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
127-18-4	Tetrachloroethylene	513 ^c	25	5.4	ug/l	
108-88-3	Toluene	ND	5.0	1.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.3	ug/l	
79-01-6	Trichloroethylene	47.1	5.0	1.7	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-21	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	5.0	2.0	ug/l	
1330-20-7	Xylene (total)	ND	15	3.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	92%	96%	79-125%
2037-26-5	Toluene-D8	102%	102%	85-112%
460-00-4	4-Bromofluorobenzene	101%	101%	83-118%

- (a) Associated CCV outside of control limits low.
 (b) Associated CCV outside of control limits high, sample was ND.
 (c) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-21D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-23	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63133.D	1	04/27/19 12:28	AJ	n/a	n/a	VP2431
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	1.2	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.44	1.0	0.28	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	38.7	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-21D	Date Sampled: 04/23/19
Lab Sample ID: FA63569-23	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	92%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3D	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-24	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63103.D	5	04/26/19 23:15	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	50	ug/l	
71-43-2	Benzene	ND	5.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.2	ug/l	
75-25-2	Bromoform	ND	5.0	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	25	10	ug/l	
75-15-0	Carbon Disulfide	ND	10	2.7	ug/l	
56-23-5	Carbon Tetrachloride	ND	5.0	1.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane ^b	ND	10	3.3	ug/l	
67-66-3	Chloroform	ND	5.0	1.5	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.6	ug/l	
75-35-4	1,1-Dichloroethylene	5.6	5.0	1.6	ug/l	
156-59-2	cis-1,2-Dichloroethylene	7.4	5.0	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.1	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.8	ug/l	
591-78-6	2-Hexanone	ND	50	10	ug/l	
74-83-9	Methyl Bromide ^b	ND	10	2.9	ug/l	
74-87-3	Methyl Chloride	ND	10	2.5	ug/l	
75-09-2	Methylene Chloride	ND	25	10	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	5.0	ug/l	
100-42-5	Styrene	ND	5.0	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
127-18-4	Tetrachloroethylene	296	5.0	1.1	ug/l	
108-88-3	Toluene	ND	5.0	1.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.3	ug/l	
79-01-6	Trichloroethylene	9.0	5.0	1.7	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3D	Date Sampled: 04/23/19
Lab Sample ID: FA63569-24	Date Received: 04/24/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	5.0	2.0	ug/l	
1330-20-7	Xylene (total)	ND	15	3.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-32DR-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-25	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P63123.D	1	04/27/19 07:37	AJ	n/a	n/a	VP2430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.59	1.0	0.32	ug/l	J
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^b	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	29.9	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	0.52	1.0	0.35	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-32DR-A	Date Sampled:	04/23/19
Lab Sample ID:	FA63569-25	Date Received:	04/24/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA63569

AECOM

Chain of Custody and Analytical Request

 Page 1 of 2
 Project Number: 60601837.1
 Chain of Custody Number (1):

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC						Sample Analysis Requested										Quality Assurance Samples		
Client Name: UTC						COMMENTS												Cooler ID
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586															
Sample ID	Date Collected (dd-mm-YYYY)	Time Collected (Military) (hh:mm)	See Comments			Sample Information	TCL VOC's (8260B)	TCL SVOC's (8270D)	P/P Metals (6010C/7470B)									
1 Trip Blank-1	22-Apr-2019					Groundwater	X										ALL VOC'S ARE UNPRESERVED	
2 Trip Blank-2	22-Apr-2019						X										7 DAY HOLDING TIME	
3 MW-30D	22-Apr-2019	1555		XX			X											
4 MW-15	22-Apr-2019	1557		XX			X											
5 MW-31D	22-Apr-2019	1638		XX			X											
6 MW-19	22-Apr-2019	1705		XX			X											
7 MW-20	22-Apr-2019	1752		XX			X											
8 MW-25D	23-Apr-2019	0855		XX			X											
9 MW-12D	23-Apr-2019	0910		XX			X											
10 MW-32DR	23-Apr-2019	0940		XX			X											
11 MW-28	23-Apr-2019	0955		XX			X											
12 MW-27	23-Apr-2019	1033		XX			X											
13 MW-26D	23-Apr-2019	1035		XX			X											
14 MW-29	23-Apr-2019	1120		XX			X											
16 MW-22D	23-Apr-2019	1125		XX			X											

Custody Transfers Prior to Receipt by Laboratory				Sample Delivery Details / Laboratory Receipt			
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	Delivered Directly to Lab:	Shipped: XXXX
Randy Morgan	4-23-19	1430	FL	4/24/19	900	Method of Shipment: Fed Ex	Airbill #: 7491386899820
						Analytical Lab: Accutest	Location: Orlando FLA
						Lab Recipient:	Date: Time:

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY-HOLDING TIME

4.0

52745\admin\project control\project forms\Blank COC

FA63569: Chain of Custody

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FA63569

AECOM

Chain of Custody and Analytical Request

 Page 2 of 2
 Project Number: 006018931
 Chain of Custody Number ⁽¹⁾: _____

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC						Sample Analysis Requested										Quality Assurance Samples	
Client Name: UTC						COMMENTS Cooler ID											
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586														
Sample ID	Date Collected (dd-mm-yyyy)	Time Collected (Military) (hh:mm)	See Comments			TCL VOC's (8260B)	TCL SVOC's (8270D)	P/P Metals (6010C/7470B)									
			COMP	GRAB	Well												Sample Information
16 MW-220-a	23-Apr-2019	1125		XX		Groundwater	X										ALL VOC'S ARE UNPRESERVED
17 MW-130	23-Apr-2019	1210		XX			X										7 DAY HOLDING TIME
18 MW-14	23-Apr-2019	1220		XX			X										
19 MW-140	23-Apr-2019	1250		XX			X										
20 MW-140-a	23-Apr-2019	1250		XX			X										
21 MW-9	23-Apr-2019	1320		XX			X										
22 MW-9-MS (i)	23-Apr-2019	1320		XX			X										21
23 MW-9-MSD (i)	23-Apr-2019	1320		XX			X										21
24 MW-210 (25)	23-Apr-2019	1400		XX			X										23
25 MW-30 (24)	23-Apr-2019	1410		XX			X										24
26 MW-30-MS (i)	23-Apr-2019	1410		XX			X										24
27 MW-30-MSD (i)	23-Apr-2019	1410		XX			X										24
28 MW-320R (23)	23-Apr-2019	0940		XX			X										25

Custody Transfers Prior to Receipt by Laboratory						Sample Delivery Details / Laboratory Receipt					
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	Delivered Directly to Lab:	Shipped:				
Randy Morgan	4-23-19	1430	Fr			Method of Shipment:	XXXX				
						Fed Ex	Airbill #:	491386899820			
						Analytical Lab:	Accutest	Location: Orlando FLA			
						Lab Recipient:		Date: Time:			

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY HOLDING TIME

52745\admin\project control\project forms\Blank COC

FA63569: Chain of Custody

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SGS Sample Receipt Summary

Job Number: FA63569 **Client:** AECOM **Project:** UTC DELAVAN SPRAY TECHNOLOGIES
Date / Time Received: 4/24/2019 9:00:00 AM **Delivery Method:** FX **Airbill #s:** 1002284333460003281100491386899820

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 1
Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);
Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Information

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present	☒		☐
2. Custody Seals Intact	☒		☐
3. Temp criteria achieved	☒		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler	☒		☐	☐
2. Trip Blank listed on COC	☒		☐	☐
	<u>W</u>	<u>or</u>	<u>S</u>	<u>N/A</u>
3. Type Of TB Received	☒		☐	☐

Sample Information

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Sample labels present on bottles	☒		☐	
2. Samples preserved properly	☒		☐	
3. Sufficient volume/containers recvd for analysis:	☒		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☒		☐	
6. Dates/Times/IDs on COC match Sample Label	☒		☐	
7. VOCs have headspace	☐		☒	☐
8. Bottles received for unspecified tests	☐		☒	
9. Compositing instructions clear	☐		☐	☒
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☒
11. % Solids Jar received?	☐		☐	☒
12. Residual Chlorine Present?	☐		☐	☒

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____
 Test Strip Lot #s: pH 0-3 _____ 230315 _____ pH 10-12 _____ 219813A _____ Other: (Specify) _____
 Residual Chlorine Test Strip Lot #: _____

Comments

SM001 Technician: PETERH Date: 4/24/2019 9:00:00 AM Reviewer: _____ Date: _____
 Rev. Date 05/24/17

FA63569: Chain of Custody

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MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2428-MB	P63054.D	1	04/26/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	0.61	2.0	0.50	ug/l	J
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2428-MB	P63054.D	1	04/26/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 83-118%
17060-07-0	1,2-Dichloroethane-D4	94% 79-125%
2037-26-5	Toluene-D8	105% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

Method Blank Summary

Page 1 of 2

Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2429-MB	P63073.D	1	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-1, FA63569-9, FA63569-21

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	0.71	2.0	0.50	ug/l	J
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2429-MB	P63073.D	1	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-1, FA63569-9, FA63569-21

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 83-118%
17060-07-0	1,2-Dichloroethane-D4	94% 79-125%
2037-26-5	Toluene-D8	101% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

Method Blank Summary

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Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2430-MB	P63101.D	1	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2430-MB	P63101.D	1	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	97% 83-118%
17060-07-0	1,2-Dichloroethane-D4	95% 79-125%
2037-26-5	Toluene-D8	101% 85-112%
460-00-4	4-Bromofluorobenzene	98% 83-118%

Method Blank Summary

Page 1 of 2

Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2431-MB	P63128.D	1	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-17, FA63569-23

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2431-MB	P63128.D	1	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-17, FA63569-23

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 83-118%
17060-07-0	1,2-Dichloroethane-D4	96% 79-125%
2037-26-5	Toluene-D8	100% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

Blank Spike Summary

Job Number: FA63569

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2428-BS	P63053.D	1	04/25/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	112	90	50-147
71-43-2	Benzene	25	22.6	90	81-122
75-27-4	Bromodichloromethane	25	23.2	93	79-123
75-25-2	Bromoform	25	26.7	107	66-123
78-93-3	2-Butanone (MEK)	125	126	101	56-143
75-15-0	Carbon Disulfide	25	25.3	101	66-148
56-23-5	Carbon Tetrachloride	25	23.1	92	76-136
108-90-7	Chlorobenzene	25	23.7	95	82-124
75-00-3	Chloroethane	25	16.7	67	62-144
67-66-3	Chloroform	25	22.1	88	80-124
124-48-1	Dibromochloromethane	25	24.6	98	78-122
75-34-3	1,1-Dichloroethane	25	23.6	94	81-122
107-06-2	1,2-Dichloroethane	25	20.3	81	75-125
75-35-4	1,1-Dichloroethylene	25	20.4	82	78-137
156-59-2	cis-1,2-Dichloroethylene	25	21.7	87	78-120
156-60-5	trans-1,2-Dichloroethylene	25	22.3	89	76-127
78-87-5	1,2-Dichloropropane	25	24.5	98	76-124
10061-01-5	cis-1,3-Dichloropropene	25	22.8	91	75-118
10061-02-6	trans-1,3-Dichloropropene	25	22.8	91	80-120
100-41-4	Ethylbenzene	25	23.8	95	81-121
591-78-6	2-Hexanone	125	131	105	61-129
74-83-9	Methyl Bromide	25	17.5	70	59-143
74-87-3	Methyl Chloride	25	39.0	156	50-159
75-09-2	Methylene Chloride	25	23.2	93	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	130	104	66-122
100-42-5	Styrene	25	22.7	91	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	24.8	99	72-120
127-18-4	Tetrachloroethylene	25	24.8	99	76-135
108-88-3	Toluene	25	23.6	94	80-120
71-55-6	1,1,1-Trichloroethane	25	21.0	84	75-130
79-00-5	1,1,2-Trichloroethane	25	24.5	98	76-119
79-01-6	Trichloroethylene	25	21.8	87	81-126
75-01-4	Vinyl Chloride	25	30.0	120	69-159
1330-20-7	Xylene (total)	75	73.7	98	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2428-BS	P63053.D	1	04/25/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	95%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2429-BS	P63072.D	1	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-1, FA63569-9, FA63569-21

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	109	87	50-147
71-43-2	Benzene	25	23.3	93	81-122
75-27-4	Bromodichloromethane	25	23.2	93	79-123
75-25-2	Bromoform	25	27.5	110	66-123
78-93-3	2-Butanone (MEK)	125	121	97	56-143
75-15-0	Carbon Disulfide	25	27.1	108	66-148
56-23-5	Carbon Tetrachloride	25	23.6	94	76-136
108-90-7	Chlorobenzene	25	24.6	98	82-124
75-00-3	Chloroethane	25	18.7	75	62-144
67-66-3	Chloroform	25	22.5	90	80-124
124-48-1	Dibromochloromethane	25	25.2	101	78-122
75-34-3	1,1-Dichloroethane	25	23.7	95	81-122
107-06-2	1,2-Dichloroethane	25	20.0	80	75-125
75-35-4	1,1-Dichloroethylene	25	21.0	84	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.2	89	78-120
156-60-5	trans-1,2-Dichloroethylene	25	22.3	89	76-127
78-87-5	1,2-Dichloropropane	25	24.4	98	76-124
10061-01-5	cis-1,3-Dichloropropene	25	23.4	94	75-118
10061-02-6	trans-1,3-Dichloropropene	25	23.6	94	80-120
100-41-4	Ethylbenzene	25	24.8	99	81-121
591-78-6	2-Hexanone	125	124	99	61-129
74-83-9	Methyl Bromide	25	19.4	78	59-143
74-87-3	Methyl Chloride	25	39.2	157	50-159
75-09-2	Methylene Chloride	25	23.4	94	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	125	100	66-122
100-42-5	Styrene	25	23.5	94	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	25.1	100	72-120
127-18-4	Tetrachloroethylene	25	25.8	103	76-135
108-88-3	Toluene	25	24.1	96	80-120
71-55-6	1,1,1-Trichloroethane	25	21.4	86	75-130
79-00-5	1,1,2-Trichloroethane	25	25.1	100	76-119
79-01-6	Trichloroethylene	25	22.4	90	81-126
75-01-4	Vinyl Chloride	25	29.7	119	69-159
1330-20-7	Xylene (total)	75	77.1	103	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2429-BS	P63072.D	1	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-1, FA63569-9, FA63569-21

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	83-118%
17060-07-0	1,2-Dichloroethane-D4	90%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2430-BS	P63100.D	1	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	110	88	50-147
71-43-2	Benzene	25	23.4	94	81-122
75-27-4	Bromodichloromethane	25	24.1	96	79-123
75-25-2	Bromoform	25	27.2	109	66-123
78-93-3	2-Butanone (MEK)	125	124	99	56-143
75-15-0	Carbon Disulfide	25	27.3	109	66-148
56-23-5	Carbon Tetrachloride	25	23.8	95	76-136
108-90-7	Chlorobenzene	25	24.5	98	82-124
75-00-3	Chloroethane	25	18.1	72	62-144
67-66-3	Chloroform	25	22.9	92	80-124
124-48-1	Dibromochloromethane	25	25.3	101	78-122
75-34-3	1,1-Dichloroethane	25	24.1	96	81-122
107-06-2	1,2-Dichloroethane	25	20.3	81	75-125
75-35-4	1,1-Dichloroethylene	25	20.8	83	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.4	90	78-120
156-60-5	trans-1,2-Dichloroethylene	25	22.6	90	76-127
78-87-5	1,2-Dichloropropane	25	24.8	99	76-124
10061-01-5	cis-1,3-Dichloropropene	25	23.6	94	75-118
10061-02-6	trans-1,3-Dichloropropene	25	23.5	94	80-120
100-41-4	Ethylbenzene	25	24.6	98	81-121
591-78-6	2-Hexanone	125	130	104	61-129
74-83-9	Methyl Bromide	25	17.4	70	59-143
74-87-3	Methyl Chloride	25	33.3	133	50-159
75-09-2	Methylene Chloride	25	23.9	96	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	128	102	66-122
100-42-5	Styrene	25	23.5	94	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	24.7	99	72-120
127-18-4	Tetrachloroethylene	25	25.8	103	76-135
108-88-3	Toluene	25	24.3	97	80-120
71-55-6	1,1,1-Trichloroethane	25	21.5	86	75-130
79-00-5	1,1,2-Trichloroethane	25	25.2	101	76-119
79-01-6	Trichloroethylene	25	22.4	90	81-126
75-01-4	Vinyl Chloride	25	29.0	116	69-159
1330-20-7	Xylene (total)	75	76.1	101	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2430-BS	P63100.D	1	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	92%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: FA63569**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2431-BS	P63127.D	1	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63569-17, FA63569-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	105	84	50-147
71-43-2	Benzene	25	23.0	92	81-122
75-27-4	Bromodichloromethane	25	23.2	93	79-123
75-25-2	Bromoform	25	27.5	110	66-123
78-93-3	2-Butanone (MEK)	125	119	95	56-143
75-15-0	Carbon Disulfide	25	27.0	108	66-148
56-23-5	Carbon Tetrachloride	25	23.9	96	76-136
108-90-7	Chlorobenzene	25	24.5	98	82-124
75-00-3	Chloroethane	25	16.9	68	62-144
67-66-3	Chloroform	25	22.3	89	80-124
124-48-1	Dibromochloromethane	25	25.1	100	78-122
75-34-3	1,1-Dichloroethane	25	23.6	94	81-122
107-06-2	1,2-Dichloroethane	25	20.0	80	75-125
75-35-4	1,1-Dichloroethylene	25	20.2	81	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.1	88	78-120
156-60-5	trans-1,2-Dichloroethylene	25	22.1	88	76-127
78-87-5	1,2-Dichloropropane	25	23.9	96	76-124
10061-01-5	cis-1,3-Dichloropropene	25	23.4	94	75-118
10061-02-6	trans-1,3-Dichloropropene	25	22.9	92	80-120
100-41-4	Ethylbenzene	25	24.4	98	81-121
591-78-6	2-Hexanone	125	124	99	61-129
74-83-9	Methyl Bromide	25	15.7	63	59-143
74-87-3	Methyl Chloride	25	33.4	134	50-159
75-09-2	Methylene Chloride	25	22.8	91	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	121	97	66-122
100-42-5	Styrene	25	23.3	93	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	23.9	96	72-120
127-18-4	Tetrachloroethylene	25	26.1	104	76-135
108-88-3	Toluene	25	23.6	94	80-120
71-55-6	1,1,1-Trichloroethane	25	21.2	85	75-130
79-00-5	1,1,2-Trichloroethane	25	24.4	98	76-119
79-01-6	Trichloroethylene	25	22.3	89	81-126
75-01-4	Vinyl Chloride	25	29.2	117	69-159
1330-20-7	Xylene (total)	75	75.0	100	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2431-BS	P63127.D	1	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-17, FA63569-23

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: FA63569

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63569-21MS	P63057.D	50	04/26/19	AJ	n/a	n/a	VP2428
FA63569-21MSD	P63058.D	50	04/26/19	AJ	n/a	n/a	VP2428
FA63569-21	P63056.D	25	04/26/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Compound	FA63569-21 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
67-64-1	Acetone	ND		6250	5450	87	6250	5450	87	0	50-147/21
71-43-2	Benzene	ND		1250	1120	90	1250	1140	91	2	81-122/14
75-27-4	Bromodichloromethane	ND		1250	1140	91	1250	1150	92	1	79-123/19
75-25-2	Bromoform	ND		1250	1330	106	1250	1370	110	3	66-123/21
78-93-3	2-Butanone (MEK)	ND		6250	6240	100	6250	6180	99	1	56-143/18
75-15-0	Carbon Disulfide	ND		1250	1220	98	1250	1260	101	3	66-148/23
56-23-5	Carbon Tetrachloride	ND		1250	1130	90	1250	1190	95	5	76-136/23
108-90-7	Chlorobenzene	ND		1250	1170	94	1250	1190	95	2	82-124/14
75-00-3	Chloroethane	ND		1250	916	73	1250	914	73	0	62-144/20
67-66-3	Chloroform	ND		1250	1080	86	1250	1110	89	3	80-124/15
124-48-1	Dibromochloromethane	ND		1250	1220	98	1250	1230	98	1	78-122/19
75-34-3	1,1-Dichloroethane	ND		1250	1150	92	1250	1170	94	2	81-122/15
107-06-2	1,2-Dichloroethane	ND		1250	994	80	1250	1000	80	1	75-125/14
75-35-4	1,1-Dichloroethylene	ND		1250	975	78	1250	1010	81	4	78-137/18
156-59-2	cis-1,2-Dichloroethylene	11.0	J	1250	1090	86	1250	1120	89	3	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		1250	1060	85	1250	1080	86	2	76-127/17
78-87-5	1,2-Dichloropropane	ND		1250	1180	94	1250	1210	97	3	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1090	87	1250	1130	90	4	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1090	87	1250	1100	88	1	80-120/22
100-41-4	Ethylbenzene	ND		1250	1170	94	1250	1190	95	2	81-121/14
591-78-6	2-Hexanone	ND		6250	6460	103	6250	6220	100	4	61-129/18
74-83-9	Methyl Bromide	ND		1250	808	65	1250	949	76	16	59-143/19
74-87-3	Methyl Chloride	ND		1250	1790	143	1250	1910	153	6	50-159/19
75-09-2	Methylene Chloride	ND		1250	1130	90	1250	1150	92	2	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		6250	6360	102	6250	6200	99	3	66-122/16
100-42-5	Styrene	ND		1250	1110	89	1250	1130	90	2	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1210	97	1250	1200	96	1	72-120/14
127-18-4	Tetrachloroethylene	513		1250	1770	101	1250	1810	104	2	76-135/16
108-88-3	Toluene	ND		1250	1150	92	1250	1170	94	2	80-120/14
71-55-6	1,1,1-Trichloroethane	ND		1250	1040	83	1250	1060	85	2	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1200	96	1250	1210	97	1	76-119/14
79-01-6	Trichloroethylene	48.3		1250	1120	86	1250	1140	87	2	81-126/15
75-01-4	Vinyl Chloride	ND		1250	1410	113	1250	1480	118	5	69-159/18
1330-20-7	Xylene (total)	ND		3750	3640	97	3750	3670	98	1	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63569-21MS	P63057.D	50	04/26/19	AJ	n/a	n/a	VP2428
FA63569-21MSD	P63058.D	50	04/26/19	AJ	n/a	n/a	VP2428
FA63569-21	P63056.D	25	04/26/19	AJ	n/a	n/a	VP2428

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-1, FA63569-2, FA63569-3, FA63569-4, FA63569-5, FA63569-6, FA63569-7, FA63569-8, FA63569-9, FA63569-10, FA63569-21

CAS No.	Surrogate Recoveries	MS	MSD	FA63569-21	Limits
1868-53-7	Dibromofluoromethane	97%	97%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	90%	96%	79-125%
2037-26-5	Toluene-D8	101%	100%	102%	85-112%
460-00-4	4-Bromofluorobenzene	98%	99%	101%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: FA63569

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63369-43MS	P63079.D	50	04/26/19	AJ	n/a	n/a	VP2429
FA63369-43MSD	P63080.D	50	04/26/19	AJ	n/a	n/a	VP2429
FA63369-43	P63077.D	25	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63569-1, FA63569-9, FA63569-21

CAS No.	Compound	FA63369-43 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
67-64-1	Acetone	ND		6250	5340	85	6250	5420	87	1	50-147/21
71-43-2	Benzene	82.4		1250	1210	90	1250	1250	93	3	81-122/14
75-27-4	Bromodichloromethane	ND		1250	1110	89	1250	1170	94	5	79-123/19
75-25-2	Bromoform	ND		1250	1260	101	1250	1390	111	10	66-123/21
78-93-3	2-Butanone (MEK)	ND		6250	6000	96	6250	6110	98	2	56-143/18
75-15-0	Carbon Disulfide	ND		1250	1230	98	1250	1340	107	9	66-148/23
56-23-5	Carbon Tetrachloride	ND		1250	1120	90	1250	1200	96	7	76-136/23
108-90-7	Chlorobenzene	ND		1250	1170	94	1250	1240	99	6	82-124/14
75-00-3	Chloroethane	38.7	J	1250	816	62	1250	927	71	13	62-144/20
67-66-3	Chloroform	ND		1250	1080	86	1250	1140	91	5	80-124/15
124-48-1	Dibromochloromethane	ND		1250	1160	93	1250	1250	100	7	78-122/19
75-34-3	1,1-Dichloroethane	1490		1250	2640	92	1250	2710	98	3	81-122/15
107-06-2	1,2-Dichloroethane	9.3	J	1250	948	75	1250	1010	80	6	75-125/14
75-35-4	1,1-Dichloroethylene	756		1250	1700	76*	1250	1770	81	4	78-137/18
156-59-2	cis-1,2-Dichloroethylene	3730	E	1250	4750	82	1250	4890	93	3	78-120/15
156-60-5	trans-1,2-Dichloroethylene	29.2		1250	1080	84	1250	1130	88	5	76-127/17
78-87-5	1,2-Dichloropropane	ND		1250	1150	92	1250	1210	97	5	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1080	86	1250	1160	93	7	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1060	85	1250	1120	90	6	80-120/22
100-41-4	Ethylbenzene	ND		1250	1180	94	1250	1230	98	4	81-121/14
591-78-6	2-Hexanone	ND		6250	6120	98	6250	6110	98	0	61-129/18
74-83-9	Methyl Bromide	ND		1250	769	62	1250	1040	83	30*	59-143/19
74-87-3	Methyl Chloride	ND		1250	1740	139	1250	1970	158	12	50-159/19
75-09-2	Methylene Chloride	ND		1250	1080	86	1250	1150	92	6	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		6250	6100	98	6250	6100	98	0	66-122/16
100-42-5	Styrene	ND		1250	1110	89	1250	1170	94	5	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1190	95	1250	1190	95	0	72-120/14
127-18-4	Tetrachloroethylene	8.8	J	1250	1260	100	1250	1330	106	5	76-135/16
108-88-3	Toluene	ND		1250	1150	92	1250	1200	96	4	80-120/14
71-55-6	1,1,1-Trichloroethane	ND		1250	1020	82	1250	1090	87	7	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1160	93	1250	1200	96	3	76-119/14
79-01-6	Trichloroethylene	69.5		1250	1130	85	1250	1200	90	6	81-126/15
75-01-4	Vinyl Chloride	2030		1250	3230	96	1250	3550	122	9	69-159/18
1330-20-7	Xylene (total)	ND		3750	3630	97	3750	3800	101	5	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63369-43MS	P63079.D	50	04/26/19	AJ	n/a	n/a	VP2429
FA63369-43MSD	P63080.D	50	04/26/19	AJ	n/a	n/a	VP2429
FA63369-43	P63077.D	25	04/26/19	AJ	n/a	n/a	VP2429

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-1, FA63569-9, FA63569-21

CAS No.	Surrogate Recoveries	MS	MSD	FA63369-43	Limits
1868-53-7	Dibromofluoromethane	97%	96%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	89%	87%	90%	79-125%
2037-26-5	Toluene-D8	100%	99%	102%	85-112%
460-00-4	4-Bromofluorobenzene	100%	99%	100%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: FA63569

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63569-24MS	P63104.D	5	04/26/19	AJ	n/a	n/a	VP2430
FA63569-24MSD	P63105.D	5	04/27/19	AJ	n/a	n/a	VP2430
FA63569-24 ^a	P63103.D	5	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Compound	FA63569-24 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	625	571	91	625	514	82	11	50-147/21
71-43-2	Benzene	ND	125	122	98	125	118	94	3	81-122/14
75-27-4	Bromodichloromethane	ND	125	124	99	125	122	98	2	79-123/19
75-25-2	Bromoform	ND	125	142	114	125	136	109	4	66-123/21
78-93-3	2-Butanone (MEK)	ND	625	643	103	625	586	94	9	56-143/18
75-15-0	Carbon Disulfide	ND	125	139	111	125	132	106	5	66-148/23
56-23-5	Carbon Tetrachloride	ND	125	122	98	125	119	95	2	76-136/23
108-90-7	Chlorobenzene	ND	125	128	102	125	122	98	5	82-124/14
75-00-3	Chloroethane	ND	125	94.1	75	125	88.8	71	6	62-144/20
67-66-3	Chloroform	ND	125	120	96	125	113	90	6	80-124/15
124-48-1	Dibromochloromethane	ND	125	130	104	125	127	102	2	78-122/19
75-34-3	1,1-Dichloroethane	ND	125	125	100	125	119	95	5	81-122/15
107-06-2	1,2-Dichloroethane	ND	125	107	86	125	101	81	6	75-125/14
75-35-4	1,1-Dichloroethylene	5.6	125	113	86	125	109	83	4	78-137/18
156-59-2	cis-1,2-Dichloroethylene	7.4	125	127	96	125	121	91	5	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND	125	117	94	125	112	90	4	76-127/17
78-87-5	1,2-Dichloropropane	ND	125	127	102	125	125	100	2	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND	125	120	96	125	117	94	3	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND	125	118	94	125	115	92	3	80-120/22
100-41-4	Ethylbenzene	ND	125	127	102	125	123	98	3	81-121/14
591-78-6	2-Hexanone	ND	625	674	108	625	610	98	10	61-129/18
74-83-9	Methyl Bromide	ND	125	92.6	74	125	112	90	19	59-143/19
74-87-3	Methyl Chloride	ND	125	166	133	125	168	134	1	50-159/19
75-09-2	Methylene Chloride	ND	125	124	99	125	118	94	5	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	625	668	107	625	606	97	10	66-122/16
100-42-5	Styrene	ND	125	122	98	125	117	94	4	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND	125	130	104	125	120	96	8	72-120/14
127-18-4	Tetrachloroethylene	296	125	430	107	125	411	92	5	76-135/16
108-88-3	Toluene	ND	125	124	99	125	120	96	3	80-120/14
71-55-6	1,1,1-Trichloroethane	ND	125	111	89	125	108	86	3	75-130/16
79-00-5	1,1,2-Trichloroethane	ND	125	128	102	125	123	98	4	76-119/14
79-01-6	Trichloroethylene	9.0	125	127	94	125	121	90	5	81-126/15
75-01-4	Vinyl Chloride	ND	125	140	112	125	140	112	0	69-159/18
1330-20-7	Xylene (total)	ND	375	393	105	375	379	101	4	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63569-24MS	P63104.D	5	04/26/19	AJ	n/a	n/a	VP2430
FA63569-24MSD	P63105.D	5	04/27/19	AJ	n/a	n/a	VP2430
FA63569-24 ^a	P63103.D	5	04/26/19	AJ	n/a	n/a	VP2430

The QC reported here applies to the following samples: Method: SW846 8260B

FA63569-11, FA63569-12, FA63569-13, FA63569-14, FA63569-15, FA63569-16, FA63569-17, FA63569-18, FA63569-19, FA63569-20, FA63569-24, FA63569-25

CAS No.	Surrogate Recoveries	MS	MSD	FA63569-24	Limits
1868-53-7	Dibromofluoromethane	97%	97%	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	90%	94%	79-125%
2037-26-5	Toluene-D8	100%	100%	102%	85-112%
460-00-4	4-Bromofluorobenzene	98%	100%	101%	83-118%

(a) Sample was not preserved to a pH < 2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: FA63569

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63460-4MS	P63143.D	5	04/27/19	AJ	n/a	n/a	VP2431
FA63460-4MSD	P63144.D	5	04/27/19	AJ	n/a	n/a	VP2431
FA63460-4	P63142.D	5	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63569-17, FA63569-23

CAS No.	Compound	FA63460-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	625	498	80	625	549	88	10	50-147/21
71-43-2	Benzene	ND	125	116	93	125	113	90	3	81-122/14
75-27-4	Bromodichloromethane	ND	125	115	92	125	116	93	1	79-123/19
75-25-2	Bromoform	ND	125	133	106	125	128	102	4	66-123/21
78-93-3	2-Butanone (MEK)	ND	625	577	92	625	635	102	10	56-143/18
75-15-0	Carbon Disulfide	ND	125	127	102	125	128	102	1	66-148/23
56-23-5	Carbon Tetrachloride	ND	125	119	95	125	115	92	3	76-136/23
108-90-7	Chlorobenzene	ND	125	119	95	125	116	93	3	82-124/14
75-00-3	Chloroethane	16.9	125	103	69	125	95.0	62	8	62-144/20
67-66-3	Chloroform	ND	125	112	90	125	109	87	3	80-124/15
124-48-1	Dibromochloromethane	ND	125	120	96	125	120	96	0	78-122/19
75-34-3	1,1-Dichloroethane	264	125	364	80* a	125	367	82	1	81-122/15
107-06-2	1,2-Dichloroethane	ND	125	101	81	125	100	80	1	75-125/14
75-35-4	1,1-Dichloroethylene	17.0	125	111	75*	125	114	78	3	78-137/18
156-59-2	cis-1,2-Dichloroethylene	151	125	275	99	125	271	96	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND	125	107	86	125	108	86	1	76-127/17
78-87-5	1,2-Dichloropropane	ND	125	115	92	125	118	94	3	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND	125	97.9	78	125	97.3	78	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND	125	104	83	125	107	86	3	80-120/22
100-41-4	Ethylbenzene	ND	125	117	94	125	117	94	0	81-121/14
591-78-6	2-Hexanone	ND	625	448	72	625	646	103	36*	61-129/18
74-83-9	Methyl Bromide	ND	125	87.1	70	125	93.0	74	7	59-143/19
74-87-3	Methyl Chloride	ND	125	148	118	125	165	132	11	50-159/19
75-09-2	Methylene Chloride	ND	125	116	93	125	120	96	3	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	625	568	91	625	628	100	10	66-122/16
100-42-5	Styrene	ND	125	111	89	125	109	87	2	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND	125	116	93	125	122	98	5	72-120/14
127-18-4	Tetrachloroethylene	ND	125	123	98	125	121	97	2	76-135/16
108-88-3	Toluene	ND	125	114	91	125	113	90	1	80-120/14
71-55-6	1,1,1-Trichloroethane	ND	125	107	86	125	103	82	4	75-130/16
79-00-5	1,1,2-Trichloroethane	ND	125	116	93	125	118	94	2	76-119/14
79-01-6	Trichloroethylene	23.2	125	132	87	125	128	84	3	81-126/15
75-01-4	Vinyl Chloride	4.0	J 125	130	101	125	146	114	12	69-159/18
1330-20-7	Xylene (total)	ND	375	358	95	375	359	96	0	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63569
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63460-4MS	P63143.D	5	04/27/19	AJ	n/a	n/a	VP2431
FA63460-4MSD	P63144.D	5	04/27/19	AJ	n/a	n/a	VP2431
FA63460-4	P63142.D	5	04/27/19	AJ	n/a	n/a	VP2431

The QC reported here applies to the following samples: Method: SW846 8260B
FA63569-17, FA63569-23

CAS No.	Surrogate Recoveries	MS	MSD	FA63460-4	Limits
1868-53-7	Dibromofluoromethane	99%	98%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	92%	95%	79-125%
2037-26-5	Toluene-D8	96%	99%	104%	85-112%
460-00-4	4-Bromofluorobenzene	98%	99%	96%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

United Technologies Corporation

AECOMSCG: Delavan Spray Technologies; Bamberg, SC

60578249.01

SGS Job Number: FA63597

Sampling Dates: 04/23/19 - 04/24/19

Report to:

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Total number of pages in report: **80**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)
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Test results relate only to samples analyzed.

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Sample Summary

United Technologies Corporation

Job No: FA63597

AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Project No: 60578249.01

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA63597-1	04/23/19	00:00	RMMR04/25/19	AQ	Trip Blank Water	TRIP BLANK-3
FA63597-2	04/23/19	00:00	RMMR04/25/19	AQ	Trip Blank Water	TRIP BLANK-4
FA63597-3	04/23/19	15:15	RMMR04/25/19	AQ	Ground Water	MW-3
FA63597-4	04/23/19	15:10	RMMR04/25/19	AQ	Ground Water	MW-10
FA63597-5	04/23/19	16:00	RMMR04/25/19	AQ	Ground Water	MW-21
FA63597-6	04/24/19	08:32	RMMR04/25/19	AQ	Ground Water	MW-16
FA63597-7	04/24/19	08:55	RMMR04/25/19	AQ	Ground Water	MW-1
FA63597-8	04/24/19	09:20	RMMR04/25/19	AQ	Ground Water	MW-8
FA63597-9	04/24/19	09:25	RMMR04/25/19	AQ	Ground Water	MW-7
FA63597-10	04/24/19	10:07	RMMR04/25/19	AQ	Ground Water	MW-24
FA63597-11	04/24/19	10:10	RMMR04/25/19	AQ	Ground Water	MW-5
FA63597-12	04/24/19	10:25	RMMR04/25/19	AQ	Ground Water	IDW-1
FA63597-13	04/23/19	00:00	RMMR04/25/19	AQ	Ground Water	MW-26D

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: United Technologies Corporation

Job No: FA63597

Site: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Report Date 5/9/2019 3:22:36 PM

10 Samples, 2 Trip Blanks were collected between 04/23/2019 and 04/24/2019 and were received at SGS North America Inc - Orlando on 04/25/2019 properly preserved, at 3.4 Deg. C and intact. These Samples received an SGS Orlando job number of FA63597. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260B

Matrix: AQ

Batch ID: V1A704

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63597-5MS, FA63597-5MSD were used as the QC samples indicated.

RPD(s) for MSD for Methyl Bromide are outside control limits for sample FA63597-5MSD. Probable cause is due to sample non-homogeneity.

FA63597-1 for Acetone: Sample vial(s) contained significant headspace; reported results are considered minimum values.

FA63597-1: Sample was not preserved to a pH < 2; reported results are considered minimum values.

FA63597-2 for Acetone: Sample vial(s) contained significant headspace; reported results are considered minimum values.

FA63597-2: Sample was not preserved to a pH < 2; reported results are considered minimum values.

FA63597-3: Sample was not preserved to a pH < 2; reported results are considered minimum values.

FA63597-4: Sample was not preserved to a pH < 2; reported results are considered minimum values.

FA63597-5: Sample was not preserved to a pH < 2; reported results are considered minimum values.

FA63597-6: Sample was not preserved to a pH < 2.

Matrix: AQ

Batch ID: V1A707

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63602-1MS, FA63602-1MSD were used as the QC samples indicated.

FA63597-4: Sample was not preserved to a pH < 2; reported results are considered minimum values.

Matrix: AQ

Batch ID: VC5255

All samples were analyzed within the recommended method holding time.

Sample(s) FA63460-6MS, FA63460-6MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery(s) for Methyl Bromide are outside control limits.

FA63597-7 for Chloroethane: Associated CCV outside of control limits low.

FA63597-7 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-7: Sample was not preserved to a pH < 2.

FA63597-8 for Chloroethane: Associated CCV outside of control limits low.

FA63597-8 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-8: Sample was not preserved to a pH < 2.

FA63597-9 for Chloroethane: Associated CCV outside of control limits low.

FA63597-9 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-9: Sample was not preserved to a pH < 2.

FA63597-10 for Chloroethane: Associated CCV outside of control limits low.

FA63597-10 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-10: Sample was not preserved to a pH < 2.

FA63597-11 for Chloroethane: Associated CCV outside of control limits low.

FA63597-11 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-11: Sample was not preserved to a pH < 2.

FA63597-12 for Chloroethane: Associated CCV outside of control limits low.

FA63597-12 for Methyl Bromide: Associated ICV and BS outside control limits high, however sample ND.

FA63597-12: Sample was not preserved to a pH < 2.

Matrix: AQ

Batch ID: VP2436

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63561-3MS, FA63561-3MSD were used as the QC samples indicated.

FA63597-8: Sample was not preserved to a pH < 2.

FA63597-10: Sample was not preserved to a pH < 2.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ

Batch ID: OP74830

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63596-4MS, FA63596-4MSD were used as the QC samples indicated.

FA63597-12 for N-Nitrosodiphenylamine: Associated CCV outside of control limits high, sample was ND.

Metals Analysis By Method SW846 6010D

Matrix: AQ

Batch ID: MP35460

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63710-1DUP, FA63710-1MS, FA63710-1MSD, FA63710-1PS, FA63710-1SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Chromium, Zinc are outside control limits for sample MP35460-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals Analysis By Method SW846 7470A

Matrix: AQ

Batch ID: MP35426

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA63557-5DUP, FA63557-5MS, FA63557-5MSD, FA63557-5SDL were used as the QC samples for metals.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Ariel Hartney, Client Services (*Signature on File*)

Summary of Hits

Job Number: FA63597
Account: United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Collected: 04/23/19 thru 04/24/19

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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FA63597-1 TRIP BLANK-3

No hits reported in this sample.

FA63597-2 TRIP BLANK-4

No hits reported in this sample.

FA63597-3 MW-3

cis-1,2-Dichloroethylene ^a	1.9 J	2.0	0.55	ug/l	SW846 8260B
Tetrachloroethylene ^a	132	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^a	1.7 J	2.0	0.69	ug/l	SW846 8260B

FA63597-4 MW-10

1,1-Dichloroethylene ^a	3.0	1.0	0.32	ug/l	SW846 8260B
cis-1,2-Dichloroethylene ^a	72.6	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^a	82.8	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^a	28.3	1.0	0.35	ug/l	SW846 8260B

FA63597-5 MW-21

cis-1,2-Dichloroethylene ^a	817	250	69	ug/l	SW846 8260B
Tetrachloroethylene ^a	20800	250	54	ug/l	SW846 8260B
Trichloroethylene ^a	314	250	86	ug/l	SW846 8260B

FA63597-6 MW-16

Toluene ^b	0.39 J	1.0	0.30	ug/l	SW846 8260B
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FA63597-7 MW-1

cis-1,2-Dichloroethylene ^b	5.0	2.0	0.55	ug/l	SW846 8260B
Tetrachloroethylene ^b	195	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^b	2.2	2.0	0.69	ug/l	SW846 8260B

FA63597-8 MW-8

cis-1,2-Dichloroethylene ^b	1.8	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene ^b	174	2.0	0.43	ug/l	SW846 8260B
Trichloroethylene ^b	14.2	1.0	0.35	ug/l	SW846 8260B

Summary of Hits

Page 2 of 2

Job Number: FA63597
Account: United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC
Collected: 04/23/19 thru 04/24/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA63597-9	MW-7					
Toluene ^b		0.38 J	1.0	0.30	ug/l	SW846 8260B
FA63597-10	MW-24					
cis-1,2-Dichloroethylene ^b		27.4	20	5.5	ug/l	SW846 8260B
Tetrachloroethylene ^b		2290	25	5.4	ug/l	SW846 8260B
FA63597-11	MW-5					
Tetrachloroethylene ^b		1.2	1.0	0.22	ug/l	SW846 8260B
FA63597-12	IDW-1					
cis-1,2-Dichloroethylene ^b		29.8	10	2.8	ug/l	SW846 8260B
Tetrachloroethylene ^b		689	10	2.2	ug/l	SW846 8260B
Trichloroethylene ^b		11.8	10	3.5	ug/l	SW846 8260B
Chromium		3.0 J	10	1.0	ug/l	SW846 6010D
Copper		2.7 J	25	1.0	ug/l	SW846 6010D
Nickel		0.80 J	40	0.40	ug/l	SW846 6010D
Zinc		20.9	20	4.4	ug/l	SW846 6010D

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

(b) Sample was not preserved to a pH < 2.



Orlando, FL

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TRIP BLANK-3	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-1	Date Received:	04/25/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17615.D	1	05/01/19 15:36	CV	n/a	n/a	V1A704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^b	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-3	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-1	Date Received:	04/25/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		83-118%
17060-07-0	1,2-Dichloroethane-D4	93%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

(b) Sample vial(s) contained significant headspace; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-4	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-2	Date Received:	04/25/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17616.D	1	05/01/19 16:02	CV	n/a	n/a	V1A704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^b	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-4	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-2	Date Received:	04/25/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

(b) Sample vial(s) contained significant headspace; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-3	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17622.D	2	05/01/19 18:39	CV	n/a	n/a	V1A704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.9	2.0	0.55	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	132	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	1.7	2.0	0.69	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-3	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-4	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17623.D	1	05/01/19 19:05	CV	n/a	n/a	V1A704
Run #2 ^a	1A17679.D	2	05/03/19 12:56	CV	n/a	n/a	V1A707

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	3.0	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	72.6	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	82.8 ^b	2.0	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	28.3	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-4	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	95%	96%	79-125%
2037-26-5	Toluene-D8	102%	104%	85-112%
460-00-4	4-Bromofluorobenzene	102%	102%	83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-21	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-5	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17624.D	250	05/01/19 19:32	CV	n/a	n/a	V1A704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6300	2500	ug/l	
71-43-2	Benzene	ND	250	78	ug/l	
75-27-4	Bromodichloromethane	ND	250	61	ug/l	
75-25-2	Bromoform	ND	250	100	ug/l	
78-93-3	2-Butanone (MEK)	ND	1300	500	ug/l	
75-15-0	Carbon Disulfide	ND	500	130	ug/l	
56-23-5	Carbon Tetrachloride	ND	250	89	ug/l	
108-90-7	Chlorobenzene	ND	250	50	ug/l	
75-00-3	Chloroethane	ND	500	170	ug/l	
67-66-3	Chloroform	ND	250	75	ug/l	
124-48-1	Dibromochloromethane	ND	250	69	ug/l	
75-34-3	1,1-Dichloroethane	ND	250	85	ug/l	
107-06-2	1,2-Dichloroethane	ND	250	78	ug/l	
75-35-4	1,1-Dichloroethylene	ND	250	81	ug/l	
156-59-2	cis-1,2-Dichloroethylene	817	250	69	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	250	55	ug/l	
78-87-5	1,2-Dichloropropane	ND	250	110	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	250	73	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	250	54	ug/l	
100-41-4	Ethylbenzene	ND	250	89	ug/l	
591-78-6	2-Hexanone	ND	2500	500	ug/l	
74-83-9	Methyl Bromide	ND	500	150	ug/l	
74-87-3	Methyl Chloride	ND	500	130	ug/l	
75-09-2	Methylene Chloride	ND	1300	500	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1300	250	ug/l	
100-42-5	Styrene	ND	250	56	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	75	ug/l	
127-18-4	Tetrachloroethylene	20800	250	54	ug/l	
108-88-3	Toluene	ND	250	75	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	250	62	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	250	120	ug/l	
79-01-6	Trichloroethylene	314	250	86	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-21	Date Sampled:	04/23/19
Lab Sample ID:	FA63597-5	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	250	100	ug/l	
1330-20-7	Xylene (total)	ND	750	180	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-6	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1A17625.D	1	05/01/19 19:58	CV	n/a	n/a	V1A704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	0.39	1.0	0.30	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-6	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	94%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Sample was not preserved to a pH < 2.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-7	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132244.D	2	04/30/19 20:26	AJ	n/a	n/a	VC5255
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
71-43-2	Benzene	ND	2.0	0.62	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.48	ug/l	
75-25-2	Bromoform	ND	2.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.0	ug/l	
75-15-0	Carbon Disulfide	ND	4.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	ND	2.0	0.71	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane ^b	ND	4.0	1.3	ug/l	
67-66-3	Chloroform	ND	2.0	0.60	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	5.0	2.0	0.55	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	2.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.71	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
74-83-9	Methyl Bromide ^c	ND	4.0	1.2	ug/l	
74-87-3	Methyl Chloride	ND	4.0	1.0	ug/l	
75-09-2	Methylene Chloride	ND	10	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	2.0	ug/l	
100-42-5	Styrene	ND	2.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	195	2.0	0.43	ug/l	
108-88-3	Toluene	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.93	ug/l	
79-01-6	Trichloroethylene	2.2	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-7	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	2.0	0.82	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Associated ICV and BS outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-8	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132245.D	1	04/30/19 20:52	AJ	n/a	n/a	VC5255
Run #2 ^a	P63262.D	2	05/01/19 12:49	AJ	n/a	n/a	VP2436

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.8	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^c	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	174 ^d	2.0	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	14.2	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-8	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	97%	79-125%
2037-26-5	Toluene-D8	100%	101%	85-112%
460-00-4	4-Bromofluorobenzene	98%	101%	83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Associated ICV and BS outside control limits high, however sample ND.
 (d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-9	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132246.D	1	04/30/19 21:18	AJ	n/a	n/a	VC5255
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^c	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	0.38	1.0	0.30	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-9	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Associated ICV and BS outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-24	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-10	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132247.D	20	04/30/19 21:45	AJ	n/a	n/a	VC5255
Run #2 ^a	P63263.D	25	05/01/19 13:14	AJ	n/a	n/a	VP2436

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	200	ug/l	
71-43-2	Benzene	ND	20	6.2	ug/l	
75-27-4	Bromodichloromethane	ND	20	4.8	ug/l	
75-25-2	Bromoform	ND	20	8.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	40	ug/l	
75-15-0	Carbon Disulfide	ND	40	11	ug/l	
56-23-5	Carbon Tetrachloride	ND	20	7.1	ug/l	
108-90-7	Chlorobenzene	ND	20	4.0	ug/l	
75-00-3	Chloroethane ^b	ND	40	13	ug/l	
67-66-3	Chloroform	ND	20	6.0	ug/l	
124-48-1	Dibromochloromethane	ND	20	5.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	6.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	6.2	ug/l	
75-35-4	1,1-Dichloroethylene	ND	20	6.4	ug/l	
156-59-2	cis-1,2-Dichloroethylene	27.4	20	5.5	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	20	4.4	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	8.5	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	20	5.8	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	20	4.3	ug/l	
100-41-4	Ethylbenzene	ND	20	7.1	ug/l	
591-78-6	2-Hexanone	ND	200	40	ug/l	
74-83-9	Methyl Bromide ^c	ND	40	12	ug/l	
74-87-3	Methyl Chloride	ND	40	10	ug/l	
75-09-2	Methylene Chloride	ND	100	40	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	100	20	ug/l	
100-42-5	Styrene	ND	20	4.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	6.0	ug/l	
127-18-4	Tetrachloroethylene	2290 ^d	25	5.4	ug/l	
108-88-3	Toluene	ND	20	6.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	9.3	ug/l	
79-01-6	Trichloroethylene	ND	20	6.9	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-24	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-10	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	20	8.2	ug/l	
1330-20-7	Xylene (total)	ND	60	14	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	95%	98%	79-125%
2037-26-5	Toluene-D8	100%	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	100%	83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Associated ICV and BS outside control limits high, however sample ND.
 (d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-11	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132248.D	1	04/30/19 22:11	AJ	n/a	n/a	VC5255
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane ^b	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide ^c	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	1.2	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 04/24/19
Lab Sample ID: FA63597-11	Date Received: 04/25/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

- (a) Sample was not preserved to a pH < 2.
 (b) Associated CCV outside of control limits low.
 (c) Associated ICV and BS outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IDW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-12	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0132249.D	10	04/30/19 22:38	AJ	n/a	n/a	VC5255
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	100	ug/l	
71-43-2	Benzene	ND	10	3.1	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.4	ug/l	
75-25-2	Bromoform	ND	10	4.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	20	ug/l	
75-15-0	Carbon Disulfide	ND	20	5.3	ug/l	
56-23-5	Carbon Tetrachloride	ND	10	3.6	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane ^b	ND	20	6.7	ug/l	
67-66-3	Chloroform	ND	10	3.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.8	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	3.4	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.1	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	3.2	ug/l	
156-59-2	cis-1,2-Dichloroethylene	29.8	10	2.8	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.2	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	4.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene ^b	ND	10	2.9	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	2.1	ug/l	
100-41-4	Ethylbenzene	ND	10	3.6	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
74-83-9	Methyl Bromide ^c	ND	20	5.9	ug/l	
74-87-3	Methyl Chloride	ND	20	5.0	ug/l	
75-09-2	Methylene Chloride	ND	50	20	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	10	ug/l	
100-42-5	Styrene	ND	10	2.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.0	ug/l	
127-18-4	Tetrachloroethylene	689	10	2.2	ug/l	
108-88-3	Toluene	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	4.7	ug/l	
79-01-6	Trichloroethylene	11.8	10	3.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: IDW-1	Date Sampled: 04/24/19
Lab Sample ID: FA63597-12	Date Received: 04/25/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	10	4.1	ug/l	
1330-20-7	Xylene (total)	ND	30	7.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was not preserved to a pH < 2.

(b) Associated CCV outside of control limits low.

(c) Associated ICV and BS outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IDW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-12	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6F04118.D	1	05/02/19 00:17	MV	04/30/19 12:30	OP74830	S6F153
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	49	9.7	ug/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	4.9	0.58	ug/l	
95-57-8	2-Chlorophenol	ND	4.9	0.61	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.9	0.81	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.9	0.72	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	4.9	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.7	1.9	ug/l	
95-48-7	2-Methylphenol	ND	4.9	0.54	ug/l	
	3&4-Methylphenol	ND	4.9	0.95	ug/l	
88-75-5	2-Nitrophenol	ND	4.9	0.83	ug/l	
100-02-7	4-Nitrophenol	ND	24	4.9	ug/l	
87-86-5	Pentachlorophenol	ND	24	4.9	ug/l	
108-95-2	Phenol	ND	4.9	0.49	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.9	0.72	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.9	0.73	ug/l	
83-32-9	Acenaphthene	ND	4.9	0.61	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.62	ug/l	
120-12-7	Anthracene	ND	4.9	0.77	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.74	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.76	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.75	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.80	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.83	ug/l	
100-51-6	Benzyl Alcohol	ND	4.9	0.60	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	4.9	0.82	ug/l	
85-68-7	Butyl Benzyl Phthalate	ND	4.9	0.97	ug/l	
86-74-8	Carbazole	ND	4.9	0.58	ug/l	
106-47-8	4-Chloroaniline	ND	4.9	0.61	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.9	0.79	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.9	0.71	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	4.9	0.73	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.9	0.49	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IDW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-12	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	4.9	0.52	ug/l	
218-01-9	Chrysene	ND	4.9	0.83	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.78	ug/l	
132-64-9	Dibenzofuran	ND	4.9	0.58	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.9	0.49	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.9	0.49	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.9	0.49	ug/l	
91-94-1	3,3' -Dichlorobenzidine	ND	4.9	0.62	ug/l	
84-66-2	Diethyl Phthalate	ND	4.9	0.97	ug/l	
131-11-3	Dimethyl Phthalate	ND	4.9	0.97	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	4.9	0.97	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	4.9	0.97	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.9	0.79	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.9	0.69	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.54	ug/l	
86-73-7	Fluorene	ND	4.9	0.68	ug/l	
118-74-1	Hexachlorobenzene	ND	4.9	0.67	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.9	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.9	1.8	ug/l	
67-72-1	Hexachloroethane	ND	4.9	1.6	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.69	ug/l	
78-59-1	Isophorone	ND	4.9	0.75	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.58	ug/l	
91-20-3	Naphthalene	ND	4.9	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	4.9	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	4.9	0.85	ug/l	
100-01-6	4-Nitroaniline	ND	4.9	1.1	ug/l	
98-95-3	Nitrobenzene	ND	4.9	0.91	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	4.9	0.65	ug/l	
86-30-6	N-Nitrosodiphenylamine ^a	ND	4.9	0.78	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.84	ug/l	
129-00-0	Pyrene	ND	4.9	0.66	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	21%		14-67%
4165-62-2	Phenol-d5	13%		10-50%
118-79-6	2,4,6-Tribromophenol	70%		33-118%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IDW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-12	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		42-108%
321-60-8	2-Fluorobiphenyl	61%		40-106%
1718-51-0	Terphenyl-d14	81%		39-121%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IDW-1	Date Sampled:	04/24/19
Lab Sample ID:	FA63597-12	Date Received:	04/25/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECOMSCG: Delavan Spray Technologies; Bamberg, SC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analized By	Method	Prep Method	
Antimony	1.0 U	6.0	1.0	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Arsenic	1.3 U	10	1.3	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Beryllium	0.20 U	4.0	0.20	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Cadmium	0.20 U	5.0	0.20	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Chromium	3.0 J	10	1.0	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Copper	2.7 J	25	1.0	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Lead	1.1 U	5.0	1.1	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Mercury	0.030 U	0.50	0.030	ug/l	1	04/26/19	04/26/19	JC	SW846 7470A ¹	SW846 7470A ³
Nickel	0.80 J	40	0.40	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Selenium	2.9 U	10	2.9	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Silver	0.70 U	10	0.70	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Thallium	1.4 U	10	1.4	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴
Zinc	20.9	20	4.4	ug/l	1	05/03/19	05/06/19	LM	SW846 6010D ²	SW846 3010A ⁴

(1) Instrument QC Batch: MA15810

(2) Instrument QC Batch: MA15831

(3) Prep QC Batch: MP35426

(4) Prep QC Batch: MP35460

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA63597

AECOM

Chain of Custody and Analytical Request

 Page 1 of 1
 Project Number: 60601833.01
 Chain of Custody Number (1):

Project Name / Location: UTC Delavan Spray Technologies Site, Bamberg SC					Sample Analysis Requested										Quality Assurance Samples				
Client Name: UTC																			
Collected by: Randy Morgan/ Mariah Rockwell			Project Manager: Mark Hartford 864-238-3586																
Sample ID	Date Collected (dd-mm-yy)	Time Collected (Military) (hh:mm)	See Comments			Sample Information	TCL VOCs (8260B)	TCL SVOCs (8270D)	P/P Metals (6010C/7470B)									COMMENTS	Cooler ID
Trip Blank-3	23-Apr-2019			X	X	Groundwater	X											ALL VOC'S ARE UNPRESERVED	1
Trip Blank-4	23-Apr-2019			X	X		X											7 DAY HOLDING TIME	2
MW-21D	23-Apr-2019	1400		X	X		X												
MW-3	23-Apr-2019	1515		X	X		X												3
MW-10	23-Apr-2019	1510		X	X		X												4
MW-21	23-Apr-2019	1600		X	X		X												5
MW-16	24-Apr-2019	0832		X	X		X												6
MW-1	24-Apr-2019	0835		X	X		X												7
MW-8	24-Apr-2019	0920		X	X		X												8
MW-17	24-Apr-2019	0925		X	X		X												9
MW-24	24-Apr-2019	1007		X	X		X												10
MW-5	24-Apr-2019	1010		X	X		X												11
IDW-1	24-Apr-2019	1025		X		✓	X	X	X										12

Custody Transfers Prior to Receipt by Laboratory				Sample Delivery Details / Laboratory Receipt			
1. <u>Randy Morgan</u>	Date	Time		Delivered Directly to Lab:		Shipped:	XXXX
2. <u>Fed Ex</u>				Method of Shipment:	Fed Ex	Airbill #:	7913 8689 9831
3. <u>11/1/19</u>				Analytical Lab:	Accutest	Location:	Orlando FLA
				Lab Recipient:		Date:	
						Time:	

1.) Chain of Custody Number = date collected + custody number (E.G. 01-19-2004-01)

VOC'S ARE UNPRESERVED 7 DAY HOLDING TIME

3.4

S:\admin\project control\project forms\Blank COC

FA63597: Chain of Custody

Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA63597 **Client:** AECOM **Project:** UTC DELAVAN
Date / Time Received: 4/25/2019 9:15:00 AM **Delivery Method:** FED EX **Airbill #s:** 1002284333610003281100491386899831

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 1
Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);
Cooler Temps (Corrected) °C: Cooler 1: (3.4);

Cooler Information

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present	☒		☐
2. Custody Seals Intact	☒		☐
3. Temp criteria achieved	☒		☐
4. Cooler temp verification	<u>IR Gun</u>		
5. Cooler media	<u>Ice (Bag)</u>		

Trip Blank Information

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler	☒		☐	☐
2. Trip Blank listed on COC	☒		☐	☐
	<u>W</u>	<u>or</u>	<u>S</u>	<u>N/A</u>
3. Type Of TB Received	☒		☐	☐

Sample Information

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Sample labels present on bottles	☒		☐	
2. Samples preserved properly	☒		☐	
3. Sufficient volume/containers recvd for analysis:	☒		☐	
4. Condition of sample	<u>Intact</u>			
5. Sample recvd within HT	☒		☐	
6. Dates/Times/IDs on COC match Sample Label	☒		☐	
7. VOCs have headspace	☐		☒	☐
8. Bottles received for unspecified tests	☐		☒	
9. Compositing instructions clear	☐		☐	☒
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☒
11. % Solids Jar received?	☐		☐	☒
12. Residual Chlorine Present?	☐		☐	☒

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____
 Test Strip Lot #s: pH 0-3 _____ 230315 _____
 Residual Chlorine Test Strip Lot #: _____

Number of 5035 Field Kits: _____
 pH 10-12 _____ 219813A _____

Number of Lab Filtered Metals: _____
 Other: (Specify) _____

Comments MW-21D @1400 NOT REC'D .

SM001
 Rev. Date 05/24/17

Technician: SHAYLAP

Date: 4/25/2019 9:15:00 AM

Reviewer: _____

Date: _____

FA63597: Chain of Custody

Page 2 of 2

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC5255-MB	C0132228.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC5255-MB	C0132228.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples: Method: SW846 8260B
FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 83-118%
17060-07-0	1,2-Dichloroethane-D4	104% 79-125%
2037-26-5	Toluene-D8	98% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

Method Blank Summary

Page 1 of 1

Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2436-MB	P63256.D	1	05/01/19	AJ	n/a	n/a	VP2436

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63597-8, FA63597-10

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 83-118%
17060-07-0	1,2-Dichloroethane-D4	95% 79-125%
2037-26-5	Toluene-D8	101% 85-112%
460-00-4	4-Bromofluorobenzene	99% 83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide ^a	2.90	2900	ug/l	JN
	Total TIC, Volatile ^a		0	ug/l	

(a) The following compound was not found: Chlorofluoromethane.

Method Blank Summary

Page 1 of 2

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A704-MB	1A17608.D	1	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

Method Blank Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A704-MB	1A17608.D	1	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples: Method: SW846 8260B
FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	97% 83-118%
17060-07-0	1,2-Dichloroethane-D4	93% 79-125%
2037-26-5	Toluene-D8	104% 85-112%
460-00-4	4-Bromofluorobenzene	105% 83-118%

Method Blank Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A707-MB	1A17676.D	1	05/03/19	CV	n/a	n/a	V1A707

The QC reported here applies to the following samples: Method: SW846 8260B

FA63597-4

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 83-118%
17060-07-0	1,2-Dichloroethane-D4	95% 79-125%
2037-26-5	Toluene-D8	104% 85-112%
460-00-4	4-Bromofluorobenzene	103% 83-118%

Blank Spike Summary

Page 1 of 2

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC5255-BS	C0132227.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	148	118	50-147
71-43-2	Benzene	25	21.3	85	81-122
75-27-4	Bromodichloromethane	25	22.4	90	79-123
75-25-2	Bromoform	25	23.0	92	66-123
78-93-3	2-Butanone (MEK)	125	102	82	56-143
75-15-0	Carbon Disulfide	25	26.1	104	66-148
56-23-5	Carbon Tetrachloride	25	23.9	96	76-136
108-90-7	Chlorobenzene	25	22.1	88	82-124
75-00-3	Chloroethane	25	25.3	101	62-144
67-66-3	Chloroform	25	21.8	87	80-124
124-48-1	Dibromochloromethane	25	23.0	92	78-122
75-34-3	1,1-Dichloroethane	25	21.2	85	81-122
107-06-2	1,2-Dichloroethane	25	22.1	88	75-125
75-35-4	1,1-Dichloroethylene	25	25.9	104	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.8	91	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.2	93	76-127
78-87-5	1,2-Dichloropropane	25	21.0	84	76-124
10061-01-5	cis-1,3-Dichloropropene	25	22.1	88	75-118
10061-02-6	trans-1,3-Dichloropropene	25	22.4	90	80-120
100-41-4	Ethylbenzene	25	22.7	91	81-121
591-78-6	2-Hexanone	125	106	85	61-129
74-83-9	Methyl Bromide	25	35.9	144*	59-143
74-87-3	Methyl Chloride	25	30.7	123	50-159
75-09-2	Methylene Chloride	25	28.8	115	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	103	82	66-122
100-42-5	Styrene	25	22.3	89	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	21.0	84	72-120
127-18-4	Tetrachloroethylene	25	23.1	92	76-135
108-88-3	Toluene	25	21.8	87	80-120
71-55-6	1,1,1-Trichloroethane	25	22.5	90	75-130
79-00-5	1,1,2-Trichloroethane	25	21.4	86	76-119
79-01-6	Trichloroethylene	25	22.1	88	81-126
75-01-4	Vinyl Chloride	25	26.1	104	69-159
1330-20-7	Xylene (total)	75	68.5	91	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC5255-BS	C0132227.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples: Method: SW846 8260B
FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	102%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP2436-BS	P63258.D	1	05/01/19	AJ	n/a	n/a	VP2436

The QC reported here applies to the following samples: Method: SW846 8260B
FA63597-8, FA63597-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
127-18-4	Tetrachloroethylene	25	30.1	120	76-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	90%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 2

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A704-BS	1A17607.D	1	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples:**Method:** SW846 8260B

FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	123	98	50-147
71-43-2	Benzene	25	21.4	86	81-122
75-27-4	Bromodichloromethane	25	23.5	94	79-123
75-25-2	Bromoform	25	23.9	96	66-123
78-93-3	2-Butanone (MEK)	125	121	97	56-143
75-15-0	Carbon Disulfide	25	24.9	100	66-148
56-23-5	Carbon Tetrachloride	25	23.5	94	76-136
108-90-7	Chlorobenzene	25	22.2	89	82-124
75-00-3	Chloroethane	25	23.9	96	62-144
67-66-3	Chloroform	25	22.0	88	80-124
124-48-1	Dibromochloromethane	25	23.5	94	78-122
75-34-3	1,1-Dichloroethane	25	22.1	88	81-122
107-06-2	1,2-Dichloroethane	25	21.6	86	75-125
75-35-4	1,1-Dichloroethylene	25	20.9	84	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.3	89	78-120
156-60-5	trans-1,2-Dichloroethylene	25	21.5	86	76-127
78-87-5	1,2-Dichloropropane	25	23.3	93	76-124
10061-01-5	cis-1,3-Dichloropropene	25	22.6	90	75-118
10061-02-6	trans-1,3-Dichloropropene	25	23.6	94	80-120
100-41-4	Ethylbenzene	25	22.5	90	81-121
591-78-6	2-Hexanone	125	120	96	61-129
74-83-9	Methyl Bromide	25	33.4	134	59-143
74-87-3	Methyl Chloride	25	28.1	112	50-159
75-09-2	Methylene Chloride	25	19.6	78	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	124	99	66-122
100-42-5	Styrene	25	22.7	91	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	22.8	91	72-120
127-18-4	Tetrachloroethylene	25	24.1	96	76-135
108-88-3	Toluene	25	22.0	88	80-120
71-55-6	1,1,1-Trichloroethane	25	22.0	88	75-130
79-00-5	1,1,2-Trichloroethane	25	22.9	92	76-119
79-01-6	Trichloroethylene	25	22.3	89	81-126
75-01-4	Vinyl Chloride	25	27.7	111	69-159
1330-20-7	Xylene (total)	75	69.9	93	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A704-BS	1A17607.D	1	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples: Method: SW846 8260B
FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	103%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A707-BS	1A17675.D	1	05/03/19	CV	n/a	n/a	V1A707

The QC reported here applies to the following samples: Method: SW846 8260B

FA63597-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
127-18-4	Tetrachloroethylene	25	25.4	102	76-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	102%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63460-6MS	C0132238.D	5	04/30/19	AJ	n/a	n/a	VC5255
FA63460-6MSD	C0132239.D	5	04/30/19	AJ	n/a	n/a	VC5255
FA63460-6	C0132230.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Compound	FA63460-6 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		625	553	88	625	588	94	6	50-147/21
71-43-2	Benzene	ND		125	136	109	125	139	111	2	81-122/14
75-27-4	Bromodichloromethane	ND		125	133	106	125	136	109	2	79-123/19
75-25-2	Bromoform	ND		125	129	103	125	131	105	2	66-123/21
78-93-3	2-Butanone (MEK)	ND		625	569	91	625	624	100	9	56-143/18
75-15-0	Carbon Disulfide	ND		125	142	114	125	132	106	7	66-148/23
56-23-5	Carbon Tetrachloride	ND		125	135	108	125	142	114	5	76-136/23
108-90-7	Chlorobenzene	ND		125	135	108	125	138	110	2	82-124/14
75-00-3	Chloroethane	ND		125	110	88	125	111	89	1	62-144/20
67-66-3	Chloroform	ND		125	138	110	125	135	108	2	80-124/15
124-48-1	Dibromochloromethane	ND		125	132	106	125	134	107	2	78-122/19
75-34-3	1,1-Dichloroethane	14.5		125	151	109	125	156	113	3	81-122/15
107-06-2	1,2-Dichloroethane	ND		125	133	106	125	133	106	0	75-125/14
75-35-4	1,1-Dichloroethylene	0.36	J	125	146	117	125	139	111	5	78-137/18
156-59-2	cis-1,2-Dichloroethylene	39.7		125	168	103	125	170	104	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		125	142	114	125	144	115	1	76-127/17
78-87-5	1,2-Dichloropropane	ND		125	139	111	125	146	117	5	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		125	139	111	125	140	112	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		125	135	108	125	139	111	3	80-120/22
100-41-4	Ethylbenzene	ND		125	137	110	125	139	111	1	81-121/14
591-78-6	2-Hexanone	ND		625	600	96	625	636	102	6	61-129/18
74-83-9	Methyl Bromide	ND		125	120	96	125	145	116	19	59-143/19
74-87-3	Methyl Chloride	ND		125	175	140	125	189	151	8	50-159/19
75-09-2	Methylene Chloride	ND		125	150	120	125	152	122	1	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		625	592	95	625	634	101	7	66-122/16
100-42-5	Styrene	ND		125	136	109	125	138	110	1	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		125	131	105	125	136	109	4	72-120/14
127-18-4	Tetrachloroethylene	ND		125	136	109	125	137	110	1	76-135/16
108-88-3	Toluene	ND		125	134	107	125	136	109	1	80-120/14
71-55-6	1,1,1-Trichloroethane	17.1		125	141	99	125	147	104	4	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		125	135	108	125	140	112	4	76-119/14
79-01-6	Trichloroethylene	10.7		125	144	107	125	145	107	1	81-126/15
75-01-4	Vinyl Chloride	ND		125	148	118	125	155	124	5	69-159/18
1330-20-7	Xylene (total)	ND		375	405	108	375	412	110	2	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63460-6MS	C0132238.D	5	04/30/19	AJ	n/a	n/a	VC5255
FA63460-6MSD	C0132239.D	5	04/30/19	AJ	n/a	n/a	VC5255
FA63460-6	C0132230.D	1	04/30/19	AJ	n/a	n/a	VC5255

The QC reported here applies to the following samples: Method: SW846 8260B

FA63597-7, FA63597-8, FA63597-9, FA63597-10, FA63597-11, FA63597-12

CAS No.	Surrogate Recoveries	MS	MSD	FA63460-6	Limits
1868-53-7	Dibromofluoromethane	99%	98%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	96%	101%	79-125%
2037-26-5	Toluene-D8	101%	101%	100%	85-112%
460-00-4	4-Bromofluorobenzene	100%	101%	99%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63561-3MS	P63269.D	1	05/01/19	AJ	n/a	n/a	VP2436
FA63561-3MSD	P63270.D	1	05/01/19	AJ	n/a	n/a	VP2436
FA63561-3	P63268.D	1	05/01/19	AJ	n/a	n/a	VP2436

The QC reported here applies to the following samples: Method: SW846 8260B

FA63597-8, FA63597-10

CAS No.	Compound	FA63561-3 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	0.40	J	25	29.5	116	25	28.8	114	276-135/16

CAS No.	Surrogate Recoveries	MS	MSD	FA63561-3	Limits
1868-53-7	Dibromofluoromethane	100%	99%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	94%	95%	79-125%
2037-26-5	Toluene-D8	98%	99%	101%	85-112%
460-00-4	4-Bromofluorobenzene	99%	99%	99%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63597-5MS	1A17626.D	250	05/01/19	CV	n/a	n/a	V1A704
FA63597-5MSD	1A17627.D	250	05/01/19	CV	n/a	n/a	V1A704
FA63597-5 ^a	1A17624.D	250	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Compound	FA63597-5 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		31300	29000	93	31300	29000	93	0	50-147/21
71-43-2	Benzene	ND		6250	5460	87	6250	5500	88	1	81-122/14
75-27-4	Bromodichloromethane	ND		6250	5750	92	6250	5970	96	4	79-123/19
75-25-2	Bromoform	ND		6250	5550	89	6250	5720	92	3	66-123/21
78-93-3	2-Butanone (MEK)	ND		31300	29200	93	31300	29400	94	1	56-143/18
75-15-0	Carbon Disulfide	ND		6250	5900	94	6250	5950	95	1	66-148/23
56-23-5	Carbon Tetrachloride	ND		6250	5800	93	6250	5920	95	2	76-136/23
108-90-7	Chlorobenzene	ND		6250	5620	90	6250	5650	90	1	82-124/14
75-00-3	Chloroethane	ND		6250	6270	100	6250	6330	101	1	62-144/20
67-66-3	Chloroform	ND		6250	5610	90	6250	5600	90	0	80-124/15
124-48-1	Dibromochloromethane	ND		6250	5690	91	6250	5790	93	2	78-122/19
75-34-3	1,1-Dichloroethane	ND		6250	5550	89	6250	5670	91	2	81-122/15
107-06-2	1,2-Dichloroethane	ND		6250	5510	88	6250	5550	89	1	75-125/14
75-35-4	1,1-Dichloroethylene	ND		6250	5000	80	6250	5140	82	3	78-137/18
156-59-2	cis-1,2-Dichloroethylene	817		6250	6290	88	6250	6420	90	2	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		6250	5130	82	6250	5350	86	4	76-127/17
78-87-5	1,2-Dichloropropane	ND		6250	5800	93	6250	5880	94	1	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		6250	5430	87	6250	5530	88	2	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		6250	5600	90	6250	5820	93	4	80-120/22
100-41-4	Ethylbenzene	ND		6250	5610	90	6250	5690	91	1	81-121/14
591-78-6	2-Hexanone	ND		31300	28800	92	31300	28700	92	0	61-129/18
74-83-9	Methyl Bromide	ND		6250	4480	72	6250	5860	94	27*	59-143/19
74-87-3	Methyl Chloride	ND		6250	6830	109	6250	7310	117	7	50-159/19
75-09-2	Methylene Chloride	ND		6250	5060	81	6250	5180	83	2	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		31300	29300	94	31300	29200	93	0	66-122/16
100-42-5	Styrene	ND		6250	5720	92	6250	5740	92	0	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		6250	5770	92	6250	5800	93	1	72-120/14
127-18-4	Tetrachloroethylene	20800		6250	26700	94	6250	27100	101	1	76-135/16
108-88-3	Toluene	ND		6250	5380	86	6250	5440	87	1	80-120/14
71-55-6	1,1,1-Trichloroethane	ND		6250	5500	88	6250	5590	89	2	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		6250	5820	93	6250	5930	95	2	76-119/14
79-01-6	Trichloroethylene	314		6250	6000	91	6250	6080	92	1	81-126/15
75-01-4	Vinyl Chloride	ND		6250	6640	106	6250	6990	112	5	69-159/18
1330-20-7	Xylene (total)	ND		18800	17300	92	18800	17600	94	2	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63597-5MS	1A17626.D	250	05/01/19	CV	n/a	n/a	V1A704
FA63597-5MSD	1A17627.D	250	05/01/19	CV	n/a	n/a	V1A704
FA63597-5 ^a	1A17624.D	250	05/01/19	CV	n/a	n/a	V1A704

The QC reported here applies to the following samples:

Method: SW846 8260B

FA63597-1, FA63597-2, FA63597-3, FA63597-4, FA63597-5, FA63597-6

CAS No.	Surrogate Recoveries	MS	MSD	FA63597-5	Limits
1868-53-7	Dibromofluoromethane	99%	99%	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	97%	97%	79-125%
2037-26-5	Toluene-D8	97%	98%	101%	85-112%
460-00-4	4-Bromofluorobenzene	100%	101%	102%	83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA63602-1MS	1A17687.D	1	05/03/19	CV	n/a	n/a	V1A707
FA63602-1MSD	1A17688.D	1	05/03/19	CV	n/a	n/a	V1A707
FA63602-1	1A17686.D	1	05/03/19	CV	n/a	n/a	V1A707

The QC reported here applies to the following samples: Method: SW846 8260B

FA63597-4

CAS No.	Compound	FA63602-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	1.0 U	25	22.5	90	25	23.6	94	5	76-135/16

CAS No.	Surrogate Recoveries	MS	MSD	FA63602-1	Limits
1868-53-7	Dibromofluoromethane	101%	99%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	101%	97%	79-125%
2037-26-5	Toluene-D8	99%	99%	105%	85-112%
460-00-4	4-Bromofluorobenzene	99%	99%	100%	83-118%

* = Outside of Control Limits.

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MB	6F04101.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:**Method:** SW846 8270D

FA63597-12

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	50	10	ug/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
86-74-8	Carbazole	ND	5.0	0.60	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.63	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MB	6F04101.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:**Method:** SW846 8270D

FA63597-12

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.71	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	0.62	5.0	0.50	ug/l	J
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	41% 14-67%
4165-62-2	Phenol-d5	26% 10-50%

Method Blank Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MB	6F04101.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples: Method: SW846 8270D

FA63597-12

CAS No.	Surrogate Recoveries	Limits
118-79-6	2,4,6-Tribromophenol	87% 33-118%
4165-60-0	Nitrobenzene-d5	80% 42-108%
321-60-8	2-Fluorobiphenyl	84% 40-106%
1718-51-0	Terphenyl-d14	84% 39-121%

Blank Spike Summary

Page 1 of 3

Job Number: FA63597**Account:** UTC United Technologies Corporation**Project:** AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-BS	6F04100.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:**Method:** SW846 8270D

FA63597-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	23.3	23	10-69
59-50-7	4-Chloro-3-methyl Phenol	50	38.3	77	54-103
95-57-8	2-Chlorophenol	50	37.0	74	52-98
120-83-2	2,4-Dichlorophenol	50	40.9	82	53-103
105-67-9	2,4-Dimethylphenol	50	40.0	80	43-90
51-28-5	2,4-Dinitrophenol	100	73.2	73	44-112
534-52-1	4,6-Dinitro-o-cresol	100	94.7	95	66-121
95-48-7	2-Methylphenol	50	30.3	61	43-90
	3&4-Methylphenol	100	56.4	56	36-88
88-75-5	2-Nitrophenol	50	42.0	84	53-102
100-02-7	4-Nitrophenol	100	34.9	35	18-62
87-86-5	Pentachlorophenol	100	92.8	93	61-115
108-95-2	Phenol	50	14.8	30	19-56
95-95-4	2,4,5-Trichlorophenol	50	44.1	88	62-109
88-06-2	2,4,6-Trichlorophenol	50	46.1	92	59-107
83-32-9	Acenaphthene	50	42.7	85	61-107
208-96-8	Acenaphthylene	50	45.3	91	60-104
120-12-7	Anthracene	50	44.6	89	65-108
56-55-3	Benzo(a)anthracene	50	47.0	94	66-111
50-32-8	Benzo(a)pyrene	50	43.3	87	62-107
205-99-2	Benzo(b)fluoranthene	50	46.0	92	65-114
191-24-2	Benzo(g,h,i)perylene	50	49.0	98	66-116
207-08-9	Benzo(k)fluoranthene	50	44.6	89	65-114
100-51-6	Benzyl Alcohol	50	30.5	61	46-94
101-55-3	4-Bromophenyl Phenyl Ether	50	46.8	94	65-109
85-68-7	Butyl Benzyl Phthalate	50	44.9	90	65-112
86-74-8	Carbazole	50	45.9	92	59-113
106-47-8	4-Chloroaniline	50	36.0	72	49-105
111-91-1	bis(2-Chloroethoxy)methane	50	42.1	84	51-102
111-44-4	bis(2-Chloroethyl)ether	50	39.9	80	53-100
108-60-1	2,2'-Oxybis(1-chloropropane)	50	39.8	80	45-106
91-58-7	2-Chloronaphthalene	50	42.6	85	57-103
7005-72-3	4-Chlorophenyl Phenyl Ether	50	43.0	86	62-105
218-01-9	Chrysene	50	46.5	93	66-111
53-70-3	Dibenzo(a,h)anthracene	50	47.5	95	66-119
132-64-9	Dibenzofuran	50	43.0	86	61-106

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-BS	6F04100.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:

Method: SW846 8270D

FA63597-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	50	38.3	77	48-97
541-73-1	1,3-Dichlorobenzene	50	38.7	77	45-95
106-46-7	1,4-Dichlorobenzene	50	38.0	76	45-98
91-94-1	3,3'-Dichlorobenzidine	50	44.8	90	46-117
84-66-2	Diethyl Phthalate	50	43.8	88	64-108
131-11-3	Dimethyl Phthalate	50	43.5	87	63-106
84-74-2	Di-n-butyl Phthalate	50	46.8	94	65-107
117-84-0	Di-n-octyl Phthalate	50	43.2	86	62-118
121-14-2	2,4-Dinitrotoluene	50	42.2	84	61-110
606-20-2	2,6-Dinitrotoluene	50	42.3	85	63-108
117-81-7	bis(2-Ethylhexyl)phthalate	50	45.0	90	61-117
206-44-0	Fluoranthene	50	44.0	88	63-106
86-73-7	Fluorene	50	43.6	87	62-108
118-74-1	Hexachlorobenzene	50	44.6	89	63-108
87-68-3	Hexachlorobutadiene	50	40.4	81	42-102
77-47-4	Hexachlorocyclopentadiene	50	42.5	85	39-102
67-72-1	Hexachloroethane	50	38.2	76	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	47.1	94	64-119
78-59-1	Isophorone	50	38.1	76	43-87
91-57-6	2-Methylnaphthalene	50	39.6	79	51-102
91-20-3	Naphthalene	50	40.9	82	47-100
88-74-4	2-Nitroaniline	50	53.6	107	54-128
99-09-2	3-Nitroaniline	50	39.3	79	56-106
100-01-6	4-Nitroaniline	50	39.7	79	55-120
98-95-3	Nitrobenzene	50	40.1	80	50-104
621-64-7	N-Nitrosodi-n-propylamine	50	37.7	75	52-104
86-30-6	N-Nitrosodiphenylamine	50	42.3	85	64-108
85-01-8	Phenanthrene	50	45.4	91	66-110
129-00-0	Pyrene	50	45.6	91	64-113
120-82-1	1,2,4-Trichlorobenzene	50	40.4	81	45-97

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	14-67%
4165-62-2	Phenol-d5	28%	10-50%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-BS	6F04100.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples: Method: SW846 8270D

FA63597-12

CAS No.	Surrogate Recoveries	BSP	Limits
118-79-6	2,4,6-Tribromophenol	87%	33-118%
4165-60-0	Nitrobenzene-d5	77%	42-108%
321-60-8	2-Fluorobiphenyl	82%	40-106%
1718-51-0	Terphenyl-d14	80%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MS	6F04103.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
OP74830-MSD	6F04104.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
FA63596-4	6F04102.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:

Method: SW846 8270D

FA63597-12

CAS No.	Compound	FA63596-4 ug/l	Spike Q	ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	47 U		189	47.0	25	189	39.9	21	16	10-69/39
59-50-7	4-Chloro-3-methyl Phenol	4.7 U		94.3	68.3	72	94.3	62.3	66	9	54-103/23
95-57-8	2-Chlorophenol	4.7 U		94.3	60.9	65	94.3	56.0	59	8	52-98/25
120-83-2	2,4-Dichlorophenol	4.7 U		94.3	68.2	72	94.3	65.5	69	4	53-103/26
105-67-9	2,4-Dimethylphenol	4.7 U		94.3	67.5	72	94.3	62.8	67	7	43-90/27
51-28-5	2,4-Dinitrophenol	24 U		189	132	70	189	118	63	11	44-112/25
534-52-1	4,6-Dinitro-o-cresol	9.4 U		189	177	94	189	170	90	4	66-121/23
95-48-7	2-Methylphenol	4.7 U		94.3	50.8	54	94.3	45.1	48	12	43-90/28
	3&4-Methylphenol	4.7 U		189	96.6	51	189	84.9	45	13	36-88/28
88-75-5	2-Nitrophenol	4.7 U		94.3	69.5	74	94.3	65.8	70	5	53-102/29
100-02-7	4-Nitrophenol	24 U		189	81.7	43	189	64.1	34	24	18-62/33
87-86-5	Pentachlorophenol	24 U		189	176	93	189	165	87	6	61-115/26
108-95-2	Phenol	4.7 U		94.3	27.5	29	94.3	23.3	25	17	19-56/35
95-95-4	2,4,5-Trichlorophenol	4.7 U		94.3	77.4	82	94.3	76.8	81	1	62-109/22
88-06-2	2,4,6-Trichlorophenol	4.7 U		94.3	79.6	84	94.3	80.3	85	1	59-107/23
83-32-9	Acenaphthene	4.7 U		94.3	73.7	78	94.3	73.4	78	0	61-107/22
208-96-8	Acenaphthylene	4.7 U		94.3	78.0	83	94.3	77.2	82	1	60-104/22
120-12-7	Anthracene	4.7 U		94.3	84.7	90	94.3	80.6	85	5	65-108/20
56-55-3	Benzo(a)anthracene	4.7 U		94.3	89.2	95	94.3	85.8	91	4	66-111/22
50-32-8	Benzo(a)pyrene	4.7 U		94.3	82.7	88	94.3	79.5	84	4	62-107/23
205-99-2	Benzo(b)fluoranthene	4.7 U		94.3	83.7	89	94.3	81.8	87	2	65-114/23
191-24-2	Benzo(g,h,i)perylene	4.7 U		94.3	92.9	98	94.3	91.2	97	2	66-116/23
207-08-9	Benzo(k)fluoranthene	4.7 U		94.3	88.3	94	94.3	85.0	90	4	65-114/24
100-51-6	Benzyl Alcohol	4.7 U		94.3	53.0	56	94.3	47.0	50	12	46-94/27
101-55-3	4-Bromophenyl Phenyl Ether	4.7 U		94.3	88.0	93	94.3	89.4	95	2	65-109/23
85-68-7	Butyl Benzyl Phthalate	4.7 U		94.3	88.0	93	94.3	86.7	92	1	65-112/24
86-74-8	Carbazole	4.7 U		94.3	86.7	92	94.3	79.2	84	9	59-113/21
106-47-8	4-Chloroaniline	4.7 U		94.3	64.4	68	94.3	60.6	64	6	49-105/27
111-91-1	bis(2-Chloroethoxy)methane	4.7 U		94.3	69.5	74	94.3	66.9	71	4	51-102/28
111-44-4	bis(2-Chloroethyl)ether	4.7 U		94.3	63.0	67	94.3	59.1	63	6	53-100/27
108-60-1	2,2'-Oxybis(1-chloropropane)	4.7 U		94.3	62.9	67	94.3	58.1	62	8	45-106/26
91-58-7	2-Chloronaphthalene	4.7 U		94.3	73.0	77	94.3	73.7	78	1	57-103/23
7005-72-3	4-Chlorophenyl Phenyl Ether	4.7 U		94.3	77.9	83	94.3	74.3	79	5	62-105/20
218-01-9	Chrysene	4.7 U		94.3	88.1	93	94.3	86.8	92	1	66-111/22
53-70-3	Dibenzo(a,h)anthracene	4.7 U		94.3	89.7	95	94.3	86.6	92	4	66-119/24
132-64-9	Dibenzofuran	4.7 U		94.3	76.9	82	94.3	74.0	78	4	61-106/21

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: FA63597

Account: UTC United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MS	6F04103.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
OP74830-MSD	6F04104.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
FA63596-4	6F04102.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples:

Method: SW846 8270D

FA63597-12

CAS No.	Compound	FA63596-4 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
95-50-1	1,2-Dichlorobenzene	4.7 U		94.3	62.5	66	94.3	58.1	62	7	48-97/24
541-73-1	1,3-Dichlorobenzene	4.7 U		94.3	62.8	67	94.3	58.9	62	6	45-95/25
106-46-7	1,4-Dichlorobenzene	4.7 U		94.3	62.4	66	94.3	58.9	62	6	45-98/25
91-94-1	3,3'-Dichlorobenzidine	4.7 U		94.3	85.3	90	94.3	82.4	87	3	46-117/29
84-66-2	Diethyl Phthalate	4.7 U		94.3	81.0	86	94.3	72.8	77	11	64-108/21
131-11-3	Dimethyl Phthalate	4.7 U		94.3	78.8	84	94.3	73.2	78	7	63-106/22
84-74-2	Di-n-butyl Phthalate	4.7 U		94.3	90.0	95	94.3	84.1	89	7	65-107/21
117-84-0	Di-n-octyl Phthalate	4.7 U		94.3	84.0	89	94.3	84.8	90	1	62-118/24
121-14-2	2,4-Dinitrotoluene	4.7 U		94.3	77.5	82	94.3	68.0	72	13	61-110/21
606-20-2	2,6-Dinitrotoluene	4.7 U		94.3	77.5	82	94.3	71.3	76	8	63-108/21
117-81-7	bis(2-Ethylhexyl)phthalate	4.7 U		94.3	88.3	94	94.3	87.0	92	1	61-117/23
206-44-0	Fluoranthene	4.7 U		94.3	84.3	89	94.3	74.9	79	12	63-106/21
86-73-7	Fluorene	4.7 U		94.3	78.6	83	94.3	74.3	79	6	62-108/20
118-74-1	Hexachlorobenzene	4.7 U		94.3	85.5	91	94.3	84.9	90	1	63-108/22
87-68-3	Hexachlorobutadiene	4.7 U		94.3	67.5	72	94.3	65.5	69	3	42-102/28
77-47-4	Hexachlorocyclopentadiene	4.7 U		94.3	69.3	73	94.3	74.1	79	7	39-102/29
67-72-1	Hexachloroethane	4.7 U		94.3	62.4	66	94.3	58.8	62	6	42-100/29
193-39-5	Indeno(1,2,3-cd)pyrene	4.7 U		94.3	89.1	94	94.3	87.2	92	2	64-119/24
78-59-1	Isophorone	4.7 U		94.3	63.1	67	94.3	60.4	64	4	43-87/25
91-57-6	2-Methylnaphthalene	4.7 U		94.3	68.1	72	94.3	64.1	68	6	51-102/26
91-20-3	Naphthalene	4.7 U		94.3	69.1	73	94.3	70.5	75	2	47-100/29
88-74-4	2-Nitroaniline	4.7 U		94.3	95.0	101	94.3	89.2	95	6	54-128/24
99-09-2	3-Nitroaniline	4.7 U		94.3	73.3	78	94.3	65.6	70	11	56-106/27
100-01-6	4-Nitroaniline	4.7 U		94.3	75.3	80	94.3	61.4	65	20	55-120/24
98-95-3	Nitrobenzene	4.7 U		94.3	66.5	70	94.3	63.6	67	4	50-104/28
621-64-7	N-Nitrosodi-n-propylamine	4.7 U		94.3	60.8	64	94.3	55.6	59	9	52-104/25
86-30-6	N-Nitrosodiphenylamine	4.7 U		94.3	81.4	86	94.3	80.3	85	1	64-108/23
85-01-8	Phenanthrene	4.7 U		94.3	85.1	90	94.3	82.3	87	3	66-110/21
129-00-0	Pyrene	4.7 U		94.3	90.4	96	94.3	91.4	97	1	64-113/23
120-82-1	1,2,4-Trichlorobenzene	4.7 U		94.3	66.6	71	94.3	64.3	68	4	45-97/28

CAS No.	Surrogate Recoveries	MS	MSD	FA63596-4	Limits
367-12-4	2-Fluorophenol	40%	36%	21%	14-67%
4165-62-2	Phenol-d5	27%	23%	14%	10-50%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA63597
Account: UTC United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74830-MS	6F04103.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
OP74830-MSD	6F04104.D	1	05/01/19	MV	04/30/19	OP74830	S6F153
FA63596-4	6F04102.D	1	05/01/19	MV	04/30/19	OP74830	S6F153

The QC reported here applies to the following samples: Method: SW846 8270D

FA63597-12

CAS No.	Surrogate Recoveries	MS	MSD	FA63596-4	Limits
118-79-6	2,4,6-Tribromophenol	87%	87%	74%	33-118%
4165-60-0	Nitrobenzene-d5	68%	65%	65%	42-108%
321-60-8	2-Fluorobiphenyl	74%	75%	67%	40-106%
1718-51-0	Terphenyl-d14	85%	84%	71%	39-121%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries



Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA63597
Account: UTC - United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35426
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/26/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.046	<0.50

Associated samples MP35426: FA63597-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35426
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 04/26/19 04/26/19

Metal	FA63557-5 Original DUP		RPD	QC Limits	FA63557-5 Original MS		Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.5	3	83.3	80-120

Associated samples MP35426: FA63597-12

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35426
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 04/26/19

Metal	FA63557-5 Original MSD	Spike lot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.5	3	83.3	0.0
					20

Associated samples MP35426: FA63597-12

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35426
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 04/26/19

Metal	BSP Result	SpikeLot HGFLWS1	% Rec	QC Limits
Mercury	2.8	3	93.3	80-120

Associated samples MP35426: FA63597-12

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35426
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 04/26/19

Metal	FA63557-5		%DIF	QC Limits
	Original	SDL 1:5		
Mercury	0.00	0.00	NC	0-10

Associated samples MP35426: FA63597-12

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

8.1.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA63597
Account: UTC - United Technologies Corporation
Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/03/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1	-0.60	<6.0
Arsenic	10	1.3	1.3	-2.6	<10
Barium	200	1	1		
Beryllium	4.0	.2	.2	-0.080	<4.0
Cadmium	5.0	.2	.2	-0.030	<5.0
Calcium	1000	50	50		
Chromium	10	1	1	0.0	<10
Cobalt	50	.2	.2		
Copper	25	1	1	0.20	<25
Iron	300	17	17		
Lead	5.0	1	1.1	0.10	<5.0
Magnesium	5000	35	35		
Manganese	15	.5	1		
Molybdenum	50	.3	.3		
Nickel	40	.4	.4	0.20	<40
Potassium	10000	200	200		
Selenium	10	2.4	2.9	-1.5	<10
Silver	10	.7	.7	-0.10	<10
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.1	1.4	-1.3	<10
Tin	50	.9	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4	0.80	<20

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date:

05/03/19

05/03/19

Metal	FA63710-1 Original	DUP	RPD	QC Limits	FA63710-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0	NC	0-20	0.0	505	500	101.0	80-120
Arsenic	0.0	0.0	NC	0-20	0.0	1880	2000	94.0	80-120
Barium									
Beryllium	0.0	0.0	NC	0-20	0.0	49.6	50	99.2	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	48.8	50	97.6	80-120
Calcium									
Chromium	1.0	1.1	9.5	0-20	1.0	200	200	99.5	80-120
Cobalt									
Copper	0.0	0.0	NC	0-20	0.0	253	250	101.2	80-120
Iron									
Lead	0.0	0.0	NC	0-20	0.0	450	500	90.0	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel	0.0	0.0	NC	0-20	0.0	502	500	100.4	80-120
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	1870	2000	93.5	80-120
Silver	0.0	0.0	NC	0-20	0.0	48.2	50	96.4	80-120
Sodium									
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	1850	2000	92.5	80-120
Tin									
Titanium									
Vanadium									
Zinc	13.5	14.0	3.6	0-20	13.5	504	500	98.1	80-120

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/03/19

Metal	FA63710-1 Original MSD		Spikelet MPFLICP2 % Rec		MSD RPD	QC Limit
Aluminum						
Antimony	0.0	500	500	100.0	1.0	20
Arsenic	0.0	1860	2000	93.0	1.1	20
Barium						
Beryllium	0.0	49.6	50	99.2	0.0	20
Cadmium	0.0	48.2	50	96.4	1.2	20
Calcium						
Chromium	1.0	200	200	99.5	0.0	20
Cobalt						
Copper	0.0	254	250	101.6	0.4	20
Iron						
Lead	0.0	449	500	89.8	0.2	20
Magnesium						
Manganese						
Molybdenum						
Nickel	0.0	498	500	99.6	0.8	20
Potassium						
Selenium	0.0	1840	2000	92.0	1.6	20
Silver	0.0	48.1	50	96.2	0.2	20
Sodium						
Strontium						
Thallium	0.0	1840	2000	92.0	0.5	20
Tin						
Titanium						
Vanadium						
Zinc	13.5	503	500	97.9	0.2	20

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA63597

Account: UTC - United Technologies Corporation

Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460

Methods: SW846 6010D

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 05/03/19

Metal	BSP Result	SpikeLot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	506	500	101.2	80-120
Arsenic	1870	2000	93.5	80-120
Barium				
Beryllium	49.6	50	99.2	80-120
Cadmium	48.9	50	97.8	80-120
Calcium				
Chromium	198	200	99.0	80-120
Cobalt				
Copper	249	250	99.6	80-120
Iron				
Lead	447	500	89.4	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel	505	500	101.0	80-120
Potassium				
Selenium	1870	2000	93.5	80-120
Silver	47.7	50	95.4	80-120
Sodium				
Strontium				
Thallium	1850	2000	92.5	80-120
Tin				
Titanium				
Vanadium				
Zinc	492	500	98.4	80-120

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

8.2.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/03/19

Metal	FA63710-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium				
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	1.00	0.00	100.0(a)	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium				
Zinc	13.5	0.00	100.0(a)	0-10

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA63597
 Account: UTC - United Technologies Corporation
 Project: AECOMSCG: Delavan Spray Technologies; Bamberg, SC

QC Batch ID: MP35460
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date:

05/03/19

Metal	Sample ml	Final ml	FA63710-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			100.6	0.2	5	100	100.6	80-120
Arsenic	9.8	10			95.9	0.2	5	100	95.9	80-120
Barium										
Beryllium	9.8	10			50.11	0.2	2.5	50	100.2	80-120
Cadmium	9.8	10			49.28	0.2	2.5	50	98.6	80-120
Calcium										
Chromium	9.8	10	1	.98	50.5	0.2	2.5	50	99.0	80-120
Cobalt										
Copper	9.8	10			102.9	0.2	5	100	102.9	80-120
Iron										
Lead	9.8	10			43.4	0.2	2.5	50	86.8	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel	9.8	10			101.2	0.2	5	100	101.2	80-120
Potassium										
Selenium	9.8	10			91.8	0.2	5	100	91.8	80-120
Silver	9.8	10			48.2	0.2	2.5	50	96.4	80-120
Sodium										
Strontium										
Thallium	9.8	10			90.9	0.2	5	100	90.9	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	13.5	13.23	260	0.2	12.5	250	98.7	80-120

Associated samples MP35460: FA63597-12

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (**) Corr. sample result = Raw * (sample volume / final volume)
 (anr) Analyte not requested

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, January 2017) and *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, January 2017). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update IV* (USEPA, February 2007) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package FA63569 were collected on April 22-23, 2019 for UTC - Delavan Spray Technologies located in Bamberg, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), February 2007. *Test Methods for Evaluating Solid Waste (SW-846), Update IV.*

United States Environmental Protection Agency (USEPA), January 2017. *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review.* Publication #EPA-540-R-2017-001.

United States Environmental Protection Agency (USEPA), January 2017. *USEPA National Functional Guidelines for Organic Superfund Methods Data Review.* Publication #EPA-540-R-2017-002.

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, January 2017) and *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, January 2017). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update IV* (USEPA, February 2007) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package FA63597 were collected on April 23-24, 2019 for UTC - Delavan Spray Technologies located in Bamberg, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Semivolatile Organic Compounds by Method 8270D

Non-detected results of benzoic acid associated with preparatory batch S6F153 were qualified “R/c” due to low recovery in the associated laboratory control sample (23% < 25-150%). These qualifiers indicate the non-detections of these compounds are biased low and should be rejected.

PP Metals by Methods 6010C/7470B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

With the exception of non-detected results of benzoic acid associated with preparatory batch S6F153, the QC excursions encountered during the validation of this data set did not result in the rejection of any data. Therefore, the remaining data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), February 2007. *Test Methods for Evaluating Solid Waste (SW-846), Update IV*.

United States Environmental Protection Agency (USEPA), January 2017. *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review*. Publication #EPA-540-R-2017-001.

United States Environmental Protection Agency (USEPA), January 2017. *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*. Publication #EPA-540-R-2017-002.

**APPENDIX D
HISTORIC VOC DATA**

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MCL			200	NS	7	5	80	NS	80	70	80	NS	5	1000	100	5	2	10000
MW-1	6/4/2003	µg/L	<50	<50	<50	NA	NA	NA	NA	<50	NA	140	15000	<250	<50	<50	<50	<150
MW-1	12/30/2003	µg/L	<800	<800	<800	NA	NA	NA	NA	<800	NA	<800	11000	<800	<800	<800	<800	<800
MW-1	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	10.1	NA	<1.00	5470	NA	<1.00	34.8	<1.00	NA
MW-1	6/1/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	10.1	NA	<1.00	5750	NA	<1.00	41.3	<1.00	NA
MW-1	9/20/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	9.6	NA	<1.00	3150	NA	<1.00	38.4	<1.00	NA
MW-1	12/12/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	11.4	NA	<1.00	4750	NA	<1.00	35.6	<1.00	NA
MW-1	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	11.9	NA	<1.00	6580	NA	<1.00	48.1	<1.00	NA
MW-1	6/26/2006	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	13	NA	<1.0	4100	NA	<1.0	32	<1.0	NA
MW-1	10/21/2006	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	17.9	NA	<1.0	9550	NA	<1.0	65.8	<1.0	NA
MW-1	1/12/2007	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	23.1	NA	<1.00	6790	NA	<1.00	85.6	<1.00	NA
MW-1	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	102	NA	<1.00	5390	NA	<1.00	83.7	<1.00	NA
MW-1	11/5/2009	µg/L	<1.00	<1.00	1.74	NA	NA	NA	NA	382	NA	<1.00	7680	NA	<1.00	108	<1.00	NA
MW-1	4/30/2010	µg/L	<5.00	<5.00	<5.00	NA	NA	NA	NA	184	NA	<5.00	5940	NA	<5.00	79.6	<5.00	NA
MW-1	10/25/2010	µg/L	<50.0	<50.0	<50.0	NA	NA	NA	NA	648	NA	<50.0	5690	NA	<50.0	99.5	<50.0	NA
MW-1	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	210	NA	<1.0	3000	<1.0	<1.0	28	<2.0	<10
MW-1	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	265	NA	<1.00	2320	NA	<1.00	35	<1.00	NA
MW-1	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	298	NA	<1.00	3120	NA	<1.00	41.4	<1.00	NA
MW-1	2/26/2014	µg/L	<6.7	<5.1	<5.1	<4.8	<5.2	<4	<6.2	110 /J/A	<7.2	69.3 J	1280 /J/A	<4	<6.9	11.5 J	<6.5	<13
MW-1	10/27/2014	µg/L	<6.7	<5.1	<5.1	<4.8	<5.2	<4	<6.2	131	<7.2	<40	785	<4	<6.9	18.6 J	10.9 J	<13
MW-1	4/20/2015	µg/L	<1.3	<1	<1.4	<1	<1.1	<1.5	<1.5	6.1	<1	<10	447	<2	<1	2.6 J	<1.3	<2.6
MW-1	10/28/2015	µg/L	<1.3	<1	<1.4	<1	<1.1	<1.5	<1.5	7.1	<1	<10	383	<2	<1	2.8 J	<1.3	<2.6
MW-1	4/13/2016	µg/L	<1	<1.3	<1.1	<1.4	<1.2	<1.2	<1.5	19.4	<1.3	<10	468	<1	<1.7	6.2	<1.6	<2.8
MW-1	10/25/2016	µg/L	<1	<1.3	<1.1	<1.4	<1.2	<1.2	<1.5	7	<1.3	<10	410	<1	<1.7	3.5 J	<1.6	<2.8
MW-1	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	13.9	<0.28	<2	607	<0.3	<0.22	8.4	<0.41	<0.72
MW-1	10/18/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	124	<0.28	<2	835	<0.3	<0.22	23.2	<0.41	<0.72
MW-1	5/9/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	12.1	<0.28	<2	298	<0.3	<0.22	8.1	<0.41	<0.72
MW-1	10/30/2018	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	11.6	<1.4	<10	277	<1.5	<1.1	4.2	<2	<3.6
MW-1	4/24/2019	µg/L	<0.5	<0.68	<0.64	<0.62	<0.48	<1.1	<0.6	5	<0.55	<4	195	<0.6	<0.44	2.2	<0.82	<1.4
MW-2	6/4/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<3.0
MW-2	12/30/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	4.5	<2	<2	<2	<2	<4
MW-2	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	4.3	NA	<1.00	<1.00	<1.00	NA
MW-2	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.21	NA	<1.00	<1.00	<1.00	NA
MW-2	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	2.5	NA	<1.00	<1.00	<1.00	NA
MW-2	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.17	NA	<1.00	<1.00	<1.00	NA
MW-2	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.27	NA	<1.00	<1.00	<1.00	NA
MW-2	10/25/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1	NA	<1.00	<1.00	<1.00	NA
MW-2	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-2	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.86	NA	<1.00	<1.00	<1.00	NA
MW-2	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	6.55	NA	<1.00	<1.00	<1.00	NA
MW-2	2/25/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	1.6	<0.2	<0.34	<0.3	<0.33	<0.66
MW-2	10/27/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	1.2	<0.2	<0.34	<0.3	<0.33	<0.66
MW-2	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	0.53 J	<0.4	<0.21	<0.22	<0.25	<0.51
MW-2	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	0.85 J	<0.4	<0.21	<0.22	<0.25	<0.51
MW-2	4/13/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	0.57	<0.2	<0.33	<0.27	<0.31	<0.56
MW-2	10/25/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	0.83 J	<0.2	<0.33	<0.27	<0.31	<0.56
MW-2	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.92 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-2	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	3.1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-2	5/10/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.3	<0.3	<0.22	<0.35	<0.41	<0.72
MW-2	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1	<0.3	<0.22	<0.35	<0.41	<0.72

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-3	6/4/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	74	<5.0	<1.0	<1.0	<1.0	<3.0
MW-3	12/30/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	220	<2	<2	<2	<2	<4
MW-3	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	113	NA	<1.00	<1.00	<1.00	NA
MW-3	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	305	NA	<1.00	<1.00	<1.00	NA
MW-3	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	59.8	NA	<1.00	<1.00	<1.00	NA
MW-3	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	82.1	NA	<1.00	<1.00	<1.00	NA
MW-3	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	238	NA	<1.00	1.03	<1.00	NA
MW-3	10/25/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	391	NA	<1.00	2.79	<1.00	NA
MW-3	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	47	<1.0	<1.0	<1.0	<2.0	<10
MW-3	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	140	NA	<1.00	3.23	<1.00	NA
MW-3	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	64.5	NA	<1.00	<1.00	<1.00	NA
MW-3	3/5/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	45.1	<0.2	<0.34	1.1	<0.33	<0.66
MW-3	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	49.9	<0.2	<0.34	1.4	<0.33	<0.66
MW-3	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	0.92 J	<0.4	<0.21	<0.22	<0.25	<0.51
MW-3	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	0.24 J	<0.2	<2	57.4	<0.4	<0.21	0.79 J	<0.25	<0.51
MW-3	4/13/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	0.68	<0.26	<2	98	<0.2	<0.33	1.2	<0.31	<0.56
MW-3	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	0.58 J	<0.26	<2	91.6	<0.2	<0.33	1.1	<0.31	<0.56
MW-3	4/11/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	3.6	<0.28	<2	199	<0.3	<0.22	3.6	<0.41	<0.72
MW-3	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	0.33 J	<0.28	<2	77.3	<0.3	<0.22	1.6	<0.41	<0.72
MW-3	5/9/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	95.2	<0.3	<0.22	1.2	<0.41	<0.72
MW-3	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	0.51	<0.28	<2	86.8	<0.3	<0.22	1.3	<0.41	<0.72
MW-3	4/23/2019	µg/L	<0.5	<0.68	<0.64	<0.62	<0.48	<1.1	<0.6	1.9	<0.55	<4	132	<0.6	<0.44	1.7	<0.82	<1.4
MW-3D	1/9/2008	µg/L	<1.00	<1.00	9.68	NA	NA	NA	NA	5.52	NA	<1.00	432	NA	<1.00	3.33	<1.00	NA
MW-3D	11/5/2009	µg/L	<1.00	<1.00	11.8	NA	NA	NA	NA	8.92	NA	<1.00	612	NA	<1.00	4.11	<1.00	NA
MW-3D	4/30/2010	µg/L	<1.00	<1.00	9.92	NA	NA	NA	NA	9.33	NA	<1.00	764	NA	<1.00	6.1	<1.00	NA
MW-3D	10/26/2010	µg/L	<1.00	<1.00	11.7	NA	NA	NA	NA	9.98	NA	<1.00	544	NA	<1.00	4.51	<1.00	NA
MW-3D	5/24/2011	µg/L	<1.0	<1.0	11	NA	NA	NA	NA	9.4	NA	<1.0	600	<1.0	<1.0	4.7	<2.0	<10
MW-3D	11/9/2011	µg/L	<1.00	<1.00	10.8	NA	NA	NA	NA	9.93	NA	<1.00	526	NA	<1.00	4.01	<1.00	NA
MW-3D	5/9/2012	µg/L	<1.00	<1.00	10.3	NA	NA	NA	NA	8.58	NA	<1.00	520	NA	<1.00	4.48	<1.00	NA
MW-3D	3/5/2014	µg/L	<0.34	<0.26	10.4	<0.24	<0.26	<0.2	<0.31	7	<0.36	<2	204	<0.2	<0.34	6	<0.33	<0.66
MW-3D	10/28/2014	µg/L	0.58 J	<0.26	16.2	<0.24	<0.26	<0.2	<0.31	5.9	<0.36	<2	384	<0.2	<0.34	4.2	<0.33	<0.66
MW-3D	4/21/2015	µg/L	<0.26	<0.2	12.4	<0.2	<0.22	<0.29	<0.3	8.4	<0.2	<2	316 /M/M	<0.4	<0.21	8.1	<0.25	<0.51
MW-3D	10/27/2015	µg/L	<1.3	<1	9.7	<1	<1.1	<1.5	<1.5	5.6	<1	<10	353	<2	<1	6.7	<1.3	<2.6
MW-3D	4/13/2016	µg/L	<1	<1.3	5.7	<1.4	<1.2	<1.2	<1.5	7.8	<1.3	<10	285	<1	<1.7	8.3	<1.6	<2.8
MW-3D	10/26/2016	µg/L	0.25 J	<0.26	8.8	<0.28	<0.24	<0.23	<0.3	8.3	<0.26	<2	331	<0.2	<0.33	7.6	<0.31	<0.56
MW-3D	4/11/2017	µg/L	0.27 J	<0.34	8	<0.31	<0.24	<0.53	<0.3	8	<0.28	<2	223	<0.3	<0.22	8.1	<0.41	<0.72
MW-3D	10/17/2017	µg/L	<0.62	<0.85	8.8	<0.78	<0.61	<1.3	<0.75	6.4	<0.69	<5	290	<0.75	<0.55	4.4	<1	<1.8
MW-3D	5/9/2018	µg/L	<1.2	<1.7	6.7	<1.6	<1.2	<2.7	<1.5	7	<1.4	<10	299	<1.5	<1.1	7.4	<2	<3.6
MW-3D	10/31/2018	µg/L	<1.2	<1.7	7.8	<1.6	<1.2	<2.7	<1.5	9	<1.4	<10	432	<1.5	<1.1	6.4	<2	<3.6
MW-3D	4/23/2019	µg/L	<1.2	<1.7	5.6	<1.6	<1.2	<2.7	<1.5	7.4	<1.4	<10	296	<1.5	<1.1	9	<2	<3.6
MW-3D1	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-3D1	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-3D1	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-3D1	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-3D1	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-3D1	3/5/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-3D1	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-3D1	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-3D1	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-3D1	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-3D1	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-3D1	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-4	6/4/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<3.0
MW-4	12/30/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	<2	<2	<2	<2	<2	<4
MW-4	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-4	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-4	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-4	11/5/2009	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	4/29/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-4	10/25/2010	µg/L	<10.0	<10.0	<10.0	NA	NA	NA	NA	<10.0	NA	<10.0	<10.0	NA	<10.0	<10.0	<10.0	NA
MW-4	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-4	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-4	3/12/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-4	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	0.54 J	<0.21	<0.22	<0.25	<0.51
MW-4	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-4	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	0.42 J	<0.33	<0.27	<0.31	<0.56
MW-4	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-4	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.28	<0.3	<0.22	<0.35	<0.41	<0.72
MW-5	6/4/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	160	<5.0	<1.0	<1.0	<1.0	<3.0
MW-5	12/31/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	230	<2	<2	<2	<2	<4
MW-5	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	345	NA	<1.00	<1.00	<1.00	NA
MW-5	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	3.79	NA	<1.00	<1.00	<1.00	NA
MW-5	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	97.6	NA	<1.00	<1.00	<1.00	NA
MW-5	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	2.42	NA	<1.00	<1.00	<1.00	NA
MW-5	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.46	NA	<1.00	<1.00	<1.00	NA
MW-5	10/26/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-5	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-5	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.55	NA	<1.00	<1.00	<1.00	NA
MW-5	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	2.57	NA	<1.00	<1.00	<1.00	NA
MW-5	3/5/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	11.7	<0.2	<0.34	<0.3	<0.33	<0.66
MW-5	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	1.1	<0.2	<0.34	<0.3	<0.33	<0.66
MW-5	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	1	<0.2	<2	74.3	<0.4	<0.21	1.3	<0.25	<0.51
MW-5	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	16.2	<0.4	<0.21	<0.22	<0.25	<0.51
MW-5	4/11/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	0.53	<0.2	<0.33	<0.27	<0.31	<0.56
MW-5	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	2.5	<0.2	<0.33	<0.27	<0.31	<0.56
MW-5	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	2.7	<0.3	<0.22	<0.35	<0.41	<0.72
MW-5	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.87 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-5	5/9/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	27.7	<0.3	<0.22	<0.35	<0.41	<0.72
MW-5	11/1/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.5	<0.3	<0.22	<0.35	<0.41	<0.72
MW-5	4/24/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.2	<0.3	<0.22	<0.35	<0.41	<0.72
MW-6	6/4/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<3.0
MW-6	12/31/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	<2	<2	<2	<2	<2	<4
MW-6	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-6	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-6	3/11/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	0.59 J	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-6	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-6	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-6	10/25/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-6	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-6	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72

Appendix C
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-7	12/31/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	<2	<2	<2	<2	<2	5.3
MW-7	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-7	11/8/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-7	3/5/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-7	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-7	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	1.4	<0.4	<0.21	<0.22	<0.25	<0.51
MW-7	4/13/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-7	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-7	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.49 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-7	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-7	5/9/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-7	11/1/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-7	4/24/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	0.38	<0.22	<0.35	<0.41	<0.72
MW-8	12/31/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	30	1.9J	<2	<2	<2	4.7
MW-8	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	135	NA	<1.00	1.1	<1.00	NA
MW-8	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	102	NA	<1.00	1.1	<1.00	NA
MW-8	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	159	NA	<1.00	1.66	<1.00	NA
MW-8	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	94.1	NA	<1.00	1.38	<1.00	NA
MW-8	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	28.3	NA	<1.00	<1.00	<1.00	NA
MW-8	10/25/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	76.4	NA	<1.00	1.22	<1.00	NA
MW-8	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	100	<1.0	<1.0	2.3	<2.0	<10
MW-8	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	276	NA	<1.00	5.31	<1.00	NA
MW-8	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	1.11	NA	<1.00	491	NA	<1.00	8.42	<1.00	NA
MW-8	3/11/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	114	<0.2	<0.34	6.8	<0.33	<0.66
MW-8	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	71.4	<0.2	<0.34	3.2	<0.33	<0.66
MW-8	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	28.5	<0.4	<0.21	0.97 J	<0.25	<0.51
MW-8	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	26	<0.4	<0.21	2.2	<0.25	<0.51
MW-8	4/11/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	7.8	<0.2	<0.33	<0.27	<0.31	<0.56
MW-8	10/24/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	35.8	<0.2	<0.33	4.9	<0.31	<0.56
MW-8	4/11/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	18.8	<0.3	<0.22	1.8	<0.41	<0.72
MW-8	10/18/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	0.31 J	<0.28	<2	47.9	<0.3	<0.22	4.7	<0.41	<0.72
MW-8	5/9/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	0.9 J	<0.28	<2	81.6	<0.3	<0.22	10.4	<0.41	<0.72
MW-8	10/30/2018	µg/L	<0.5	<0.68	<0.64	<0.62	<0.48	<1.1	<0.6	2.7	<0.55	<4	176	<0.6	<0.44	21.5	<0.82	<1.4
MW-8	4/24/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	1.8	<0.28	<2	174	<0.3	<0.22	14.2	<0.41	<0.72
MWT-1/MW-9	12/31/2003	µg/L	<800	<800	<800	NA	NA	NA	NA	<800	NA	<800	7500	<800	<800	<800	<800	<2,000
MWT-1/MW-9	3/14/2005	µg/L	<1.00	<1.00	7.3	NA	NA	NA	NA	19.1	NA	<1.00	3520	NA	<1.00	76	<1.00	NA
MWT-1/MW-9	6/1/2005	µg/L	<1.00	<1.00	6.7	NA	NA	NA	NA	226	NA	<1.00	4670	NA	1.4	280	<1.00	NA
MWT-1/MW-9	9/20/2005	µg/L	1.28	<1.00	13.6	NA	NA	NA	NA	158	NA	<1.00	5000	NA	1.9	295	<1.00	NA
MWT-1/MW-9	12/12/2005	µg/L	2.05	<1.00	8.94	NA	NA	NA	NA	182	NA	<1.00	3920	NA	1.37	286	<1.00	NA
MWT-1/MW-9	3/28/2006	µg/L	<1.00	<1.00	8.51	NA	NA	NA	NA	362	NA	<1.00	4560	NA	1.57	372	<1.00	NA
MWT-1/MW-9	6/26/2006	µg/L	<1.0	<1.0	12	NA	NA	NA	NA	520	NA	<1.0	1500	NA	1.7	330	<1.0	NA
MWT-1/MW-9	10/21/2006	µg/L	<1.0	<1.0	23.5	NA	NA	NA	NA	540	NA	<1.0	7490	NA	<1.0	504	<1.0	NA
MWT-1/MW-9	1/12/2007	µg/L	<1.00	<1.00	25.3	NA	NA	NA	NA	442	NA	<1.00	5630	NA	1.97	626	<1.00	NA
MWT-1/MW-9	1/9/2008	µg/L	1.08	<1.00	5.01	NA	NA	NA	NA	271	NA	<1.00	2410	NA	1.39	297	8.73	NA
MWT-1/MW-9	11/4/2009	µg/L	<1.00	<1.00	11.6	NA	NA	NA	NA	379	NA	<1.00	2950	NA	2.21	559	<1.00	NA
MWT-1/MW-9	4/29/2010	µg/L	<1.00	<1.00	11.1	NA	NA	NA	NA	236	NA	<1.00	4170	NA	3.41	320	4.79	NA
MWT-1/MW-9	10/25/2010	µg/L	<20.0	<20.0	<20.0	NA	NA	NA	NA	326	NA	<20.0	3660	NA	<20.0	579	<20.0	NA
MWT-1/MW-9	5/24/2011	µg/L	<10	<10	<10	NA	NA	NA	NA	160	NA	<10	1200	<10	<10	380	<20	<100
MWT-1/MW-9	11/9/2011	µg/L	1.2	<1.00	19.7	NA	NA	NA	NA	200	NA	<1.00	4000	NA	1.47	450	<1.00	NA
MWT-1/MW-9	5/8/2012	µg/L	<1.00	<1.00	2.92	NA	NA	NA	NA	127	NA	<1.00	755	NA	1.09	258	<1.00	NA
MW-9	3/6/2014	µg/L	<1.7	<1.3	<1.3	<1.2	<1.3	<1	<1.6	31.5	<1.8	<10	498	<1	<1.7	55.3	<1.6	<3.3
MW-9	10/29/2014	µg/L	<0.34	<0.26	2.2	<0.24	<0.26	<0.2	<0.31	92.2	<0.36	<2	727 /M/m	<0.2	0.59 J	159	<0.33	<0.66
MW-9	4/22/2015	µg/L	<2.6	<2	<2.7	<2	<2.2	<2.9	<3	33.1	<2	<20	1760	<4	<2.1	133	<2.5	<5.1
MW-9	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	116	<0.2	<2	1070	<0.4	1.1	172 /M/M	<0.25	<0.51
MW-9	4/12/2016	µg/L	<2	<2.6	<2.2	<2.8	<2.4	<2.3	<3	49.2	<2.6	<20	771	<2	<3.3	115	<3.1	<5.6
MW-9	10/26/2016	µg/L	<2	<2.6	<2.2	<2.8	<2.4	<2.3	<3	19.2	<2.6	<20	685	<2	<3.3	106	<3.1	<5.6
MW-9	4/10/2017	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	7.8	<1.4	<10	326	<1.5	<1.1	43.8	<2	<3.6
MW-9	10/17/2017	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	109	<1.4	<10	646	<1.5	<1.1	157	<2	<3.6
MW-9	5/9/2018	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	5.9	<1.4	<10	466	<1.5	<1.1	46.5	<2	<3.6
MW-9	10/30/2018	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	75.6	<1.4	<10	2240	<1.5	<1.1	441	<2	<3.6
MW-9	4/23/2019	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<									

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-9D	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-9D	11/4/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-9D	4/29/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-9D	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-9D	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-9D	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-9D	3/6/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-9D	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-9D	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-9D	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-9D	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-9D	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MWT-2/MW-10	12/31/2003	µg/L	<200	<200	520	NA	NA	<200	NA	<200	NA	<200	5800	<200	<200	<200	<200	<400
MWT-2/MW-10	3/14/2005	µg/L	26.4	<1.00	18.6	NA	NA	NA	NA	40.1	NA	<1.00	4360	NA	1	62.3	<1.00	NA
MWT-2/MW-10	6/1/2005	µg/L	12.7	1.7	17.5	NA	NA	NA	NA	40.8	NA	<1.00	5680	NA	<1.00	52	<1.00	NA
MWT-2/MW-10	9/20/2005	µg/L	9.03	<1.00	40	NA	NA	NA	NA	27.8	NA	<1.00	4360	NA	<1.00	46.2	<1.00	NA
MWT-2/MW-10	12/12/2005	µg/L	11.7	<1.00	14.4	NA	NA	NA	NA	23.2	NA	<1.00	3050	NA	<1.00	45.2	<1.00	NA
MWT-2/MW-10	3/28/2006	µg/L	6.1	<1.00	13.4	NA	NA	NA	NA	16.8	NA	<1.00	3090	NA	<1.00	27.4	<1.00	NA
MWT-2/MW-10	6/26/2006	µg/L	<20	<20	<20	NA	NA	NA	NA	21	NA	<20	1800	NA	<20	31	<20	NA
MWT-2/MW-10	10/21/2006	µg/L	<100	<100	<100	NA	NA	NA	NA	121	NA	<100	3380	NA	<100	<100	114	NA
MWT-2/MW-10	1/12/2007	µg/L	1.22	<1.00	2.08	NA	NA	NA	NA	12.4	NA	<1.00	2980	NA	<1.00	32.7	<1.00	NA
MWT-2/MW-10	1/9/2008	µg/L	10.9	<1.00	24.1	NA	NA	NA	NA	89.1	NA	<1.00	3250	NA	<1.00	71.9	<1.00	NA
MWT-2/MW-10	11/4/2009	µg/L	1.49	1.56	82.2	NA	NA	NA	NA	1120	NA	<1.00	1600	NA	1.22	33.9	<1.00	NA
MWT-2/MW-10	4/29/2010	µg/L	<1.00	<1.00	2.85	NA	NA	NA	NA	104	NA	<1.00	53.8	NA	<1.00	3.22	<1.00	NA
MWT-2/MW-10	10/25/2010	µg/L	<10.0	<10.0	108	NA	NA	NA	NA	1270	NA	<10.0	1150	NA	<10.0	129	<10.0	NA
MWT-2/MW-10	5/24/2011	µg/L	<20	<20	<20	NA	NA	NA	NA	390	NA	<20	2000	<20	<20	88	<40.0	<200
MWT-2/MW-10	11/9/2011	µg/L	<5.00	8.8	285	NA	NA	NA	NA	4250	NA	<5.00	4670	NA	<5.00	154	<5.00	NA
MWT-2/MW-10	5/8/2012	µg/L	3.7	<1.00	7.83	NA	NA	NA	NA	885	NA	<1.00	1810	NA	17.1	386	<1.00	NA
MW-10	3/5/2014	µg/L	<0.34	<0.26	0.36 J	<0.24	<0.26	<0.2	<0.31	13.9	<0.36	<2	93.2	<0.2	<0.34	15.1	<0.33	<0.66
MW-10	10/29/2014	µg/L	<0.34	0.37 J	32.7	<0.24	<0.26	<0.2	<0.31	664	<0.36	<2	136	2.6	0.51 J	36.9	<0.33	<0.66
MW-10	4/22/2015	µg/L	<0.26	<0.2	5.2	<0.2	<0.22	<0.29	<0.3	98.8	<0.2	<2	54.1	<0.4	<0.21	7.8	<0.25	<0.51
MW-10	10/26/2015	µg/L	<0.26	0.49 J	30.3	0.22 J	<0.22	<0.29	<0.3	506	<0.2	<2	66.4	1.1	0.25 J	45.2	0.5 J	<0.51
MW-10	4/12/2016	µg/L	<0.2	<0.26	6.7	<0.28	<0.24	<0.23	<0.3	90.8	<0.26	<2	43.3	1.2	<0.33	22.1	<0.31	<0.56
MW-10	10/25/2016	µg/L	<0.2	<0.26	9	<0.28	<0.24	<0.23	<0.3	146	<0.26	<2	41.4	7.2	0.49 J	13.5	<0.31	<0.56
MW-10	4/10/2017	µg/L	<0.25	<0.34	0.95 J	<0.31	<0.24	<0.53	<0.3	41	<0.28	<2	51.6	1.2	0.32 J	44.3	<0.41	<0.72
MW-10	10/17/2017	µg/L	<0.25	<0.34	23.7	<0.31	<0.24	<0.53	<0.3	350	<0.28	<2	149	<0.3	0.26 J	70.9	<0.41	<0.72
MW-10	5/9/2018	µg/L	0.26 J	<0.34	2.4	<0.31	<0.24	<0.53	<0.3	136	<0.28	<2	180	<0.3	0.42 J	98.6	<0.41	<0.72
MW-10	10/30/2018	µg/L	<2.5	<3.4	8.2	<3.1	<2.4	<5.3	<3	135	<2.8	<20	1550	<3	<2.2	98.3	<4.1	<7.2
MW-10	4/23/2019	µg/L	<0.25	<0.34	3	<0.31	<0.24	<0.53	<0.3	72.6	<0.28	<2	82.8	<0.3	<0.22	28.3	<0.41	<0.72
MW-10D	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	4.09	NA	<1.00	<1.00	<1.00	NA
MW-10D	11/4/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-10D	4/29/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-10D	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-10D	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-10D	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-10D	3/5/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-10D	10/29/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-10D	4/22/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-10D	10/26/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-10D	10/25/2016	µg/L	<0.2 //h	<0.26 //h	<0.22 //h	<0.28 //h	<0.24 //h	<0.23 //h	<0.3 //h	<0.31 //h	<0.26 //h	<2 //h	<0.3 //h	<0.2 //h	<0.33 //h	<0.27 //h	<0.31 //h	<0.56 //h
MW-10D	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-10D	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MWT-3/MW-11	12/31/2003	µg/L	<2	<2	<2	NA	NA	NA	NA	<2	NA	<2	<2	<2	<2	<2	<2	<4
MWT-3/MW-11	3/14/2005	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	3/28/2006	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	11/4/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	4/29/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	5/24/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MWT-3/MW-11	11/9/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MWT-3/MW-11	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-11	3/11/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-11	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-11	10/26/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	4.2	<0.21	<0.22	<0.25	<0.51
MW-11	10/25/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	1	<0.33	<0.27	<0.31	<0.56
MW-11	10/16/2017	µg/L	<0.25	&														

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-12D	11/5/2009	µg/L	<1.00	<1.00	1.11	NA	NA	NA	NA	<1.00	NA	<1.00	87.7	NA	<1.00	<1.00	<1.00	NA
MW-12D	4/30/2010	µg/L	1.13	<1.00	3.67	NA	NA	NA	NA	<1.00	NA	<1.00	451	NA	<1.00	<1.00	<1.00	NA
MW-12D	10/25/2010	µg/L	<1.00	<1.00	1.07	NA	NA	NA	NA	<1.00	NA	<1.00	72.3	NA	<1.00	<1.00	<1.00	NA
MW-12D	5/23/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	12	<1.0	<1.0	<1.0	<2.0	<10
MW-12D	11/8/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	20.8	NA	<1.00	<1.00	<1.00	NA
MW-12D	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	21.4	NA	<1.00	<1.00	<1.00	NA
MW-12D	3/11/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	40.7	<0.2	<0.34	<0.3	<0.33	<0.66
MW-12D	10/29/2014	µg/L	<0.34	<0.26	0.64 J	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	25.5	<0.2	<0.34	<0.3	<0.33	<0.66
MW-12D	4/21/2015	µg/L	<0.26	<0.2	1.4	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	65.6	<0.4	<0.21	<0.22	<0.25	<0.51
MW-12D	10/27/2015	µg/L	<0.26	<0.2	0.54 J	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	25.1	<0.4	<0.21	<0.22	<0.25	<0.51
MW-12D	4/13/2016	µg/L	<0.4	<0.51	2.9	<0.57	<0.48	<0.46	<0.6	<0.62	<0.52	<4	140	<0.4	<0.66	<0.54	<0.63	<1.1
MW-12D	10/25/2016	µg/L	<0.2 //h	<0.26 //h	1.2 //h	<0.28 //h	<0.24 //h	<0.23 //h	<0.3 //h	<0.31 //h	<0.26 //h	<2 //h	69.2 //h	<0.2 //h	<0.33 //h	<0.27 //h	<0.31 //h	<0.56 //h
MW-12D	4/10/2017	µg/L	<0.25	<0.34	2.4	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	98.6	<0.3	<0.22	<0.35	<0.41	<0.72
MW-12D	10/18/2017	µg/L	<0.25	<0.34	0.48 J	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	39.1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-12D	5/8/2018	µg/L	<0.25	<0.34	0.55 J	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	33.5	<0.3	<0.22	<0.35	<0.41	<0.72
MW-12D	10/30/2018	µg/L	<0.25	<0.34	0.49	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	35.1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-12D	4/23/2019	µg/L	<0.25	<0.34	1.2	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	92.1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-13D	11/5/2009	µg/L	<1.00	<1.00	1.92	NA	NA	NA	NA	<1.00	NA	<1.00	96.4	NA	<1.00	<1.00	<1.00	NA
MW-13D	4/30/2010	µg/L	3.34	<1.00	4.6	NA	NA	NA	NA	<1.00	NA	<1.00	292	NA	<1.00	<1.00	<1.00	NA
MW-13D	10/25/2010	µg/L	1.21	<1.00	3.45	NA	NA	NA	NA	<1.00	NA	<1.00	120	NA	<1.00	<1.00	<1.00	NA
MW-13D	5/23/2011	µg/L	<1.0	<1.0	1.6	NA	NA	NA	NA	<1.0	NA	<1.0	56	<1.0	<1.0	<1.0	<2.0	<10
MW-13D	11/8/2011	µg/L	<1.00	<1.00	1.4	NA	NA	NA	NA	<1.00	NA	<1.00	74.9	NA	<1.00	<1.00	<1.00	NA
MW-13D	5/9/2012	µg/L	<1.00	<1.00	1.25	NA	NA	NA	NA	<1.00	NA	<1.00	74.3	NA	<1.00	<1.00	<1.00	NA
MW-13D	3/11/2014	µg/L	1	<0.26	3.6	<0.24	<0.26	<0.2	0.6 J	<0.33	<0.36	<2	94.1	<0.2	<0.34	<0.3	<0.33	<0.66
MW-13D	10/29/2014	µg/L	<0.34	<0.26	2	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	47.6	<0.2	<0.34	<0.3	<0.33	<0.66
MW-13D	4/22/2015	µg/L	1.5	<0.2	4.4	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	84.8	<0.4	<0.21	<0.22	<0.25	<0.51
MW-13D	10/27/2015	µg/L	0.39 J	<0.2	1.7	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	84.5	<0.4	<0.21	<0.22	<0.25	<0.51
MW-13D	4/13/2016	µg/L	3.1	<0.26	5.4	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	151	<0.2	<0.33	<0.27	<0.31	<0.56
MW-13D	10/25/2016	µg/L	2.5 J	<1.3	7	<1.4	<1.2	<1.2	<1.5	<1.6	<1.3	<10	298	<1	<1.7	<1.4	<1.6	<2.8
MW-13D	4/10/2017	µg/L	1.6	<0.34	4.1	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	168	<0.3	<0.22	<0.35	<0.41	<0.72
MW-13D	10/18/2017	µg/L	0.31 J	<0.34	1.7	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	84	<0.3	<0.22	<0.35	<0.41	<0.72
MW-13D	5/8/2018	µg/L	0.92 J	<0.34	2.9	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	92.5	<0.3	<0.22	<0.35	<0.41	<0.72
MW-13D	10/31/2018	µg/L	0.57	<0.34	2.3	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	73.9	<0.3	<0.22	<0.35	<0.41	<0.72
MW-13D	4/23/2019	µg/L	0.93	<0.34	3.2	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	170	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-14	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-14	10/25/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-14	5/23/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-14	11/8/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-14	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-14	2/26/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-14	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-14	4/20/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	0.46 J	<0.4	<0.21	<0.22	<0.25	<0.51
MW-14	10/28/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	0.72 J	<0.4	<0.21	<0.22	<0.25	<0.51
MW-14	4/13/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	0.9	<0.2	<0.33	<0.27	<0.31	<0.56
MW-14	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	0.66 J	<0.2	<0.33	<0.27	<0.31	<0.56
MW-14	4/11/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.9	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14	5/10/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1.3	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14	10/29/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14	4/23/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-14D	11/5/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	18.7	NA	<1.00	<1.00	<1.00	NA
MW-14D	4/30/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	74.8	NA	<1.00	<1.00	<1.00	NA
MW-14D	10/25/2010	µg/L	<1.00	<1.00	1.12	NA	NA	NA	NA	<1.00	NA	<1.00	85.3	NA	<1.00	<1.00	<1.00	NA
MW-14D	5/23/2011	µg/L	<1.0	<1.0	1.4	NA	NA	NA	NA	<1.0	NA	<1.0	92	<1.0	<1.0	<1.0	<2.0	<10
MW-14D	11/8/2011	µg/L	<1.00	<1.00	1.11	NA	NA	NA	NA	<1.00	NA	<1.00	77.3	NA	<1.00	<1.00	<1.00	NA
MW-14D	5/9/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	82.1	NA	<1.00	<1.00	<1.00	NA
MW-14D	2/26/2014	µg/L	<0.34	<0.26	1.6	<0.24	<0.26	<0.2	<0.31	0.95 J	<0.36	<2	81.5	<0.2	<0.34	0.56 J	<0.33	<0.66
MW-14D	10/28/2014	µg/L	<0.34	<0.26	1.2	<0.24	<0.26	<0.2	<0.31	0.65 J	<0.36	<2	79.3	<0.2	<0.34	0.56 J	<0.33	<0.66
MW-14D	4/20/2015	µg/L	<0.26	<0.2	1.8	<0.2	<0.22	<0.29	<0.3	0.9 J	<0.2	<2	69.7	<0.4	<0.21	0.61 J	<0.25	<0.51
MW-14D	10/28/2015	µg/L	<0.26	<0.2	1	<0.2	<0.22	<0.29	<0.3	0.34 J	<0.2	<2	53.1	<0.4	<0.21	<0.22	<0.25	<0.51
MW-14D	4/13/2016	µg/L	<0.2	<0.26	1.5	<0.28	<0.24	<0.23	<0.3	0.98	<0.26	<2	78.5	<0.2	<0.33	0.73	<0.31	<0.56
MW-14D	10/26/2016	µg/L	<0.2	<0.26	1.4	<0.28	<0.24	<0.23	<0.3	0.86 J	<0.26	<2	84.3	<0.2	<0.33	0.65 J	<0.31	<0.56
MW-14D	4/11/2017	µg/L	<0.25	<0.34														

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloromethane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloromethane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-15	5/25/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-15	6/28/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<3.00
MW-15	11/8/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-15	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-15	2/25/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-15	10/29/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-15	4/22/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-15	10/26/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-15	4/11/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-15	10/25/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-15	4/11/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-15	10/16/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	1.6	<0.22	<0.35	<0.41	<0.72
MW-15	5/7/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-15	10/29/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-15	4/22/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-15D	5/25/2011	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<10
MW-15D	6/28/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<3.00
MW-15D	11/8/2011	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-15D	5/8/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
MW-15D	2/25/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	0.24 J	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-17	3/10/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-17	10/29/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-17	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-17	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-17	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-17	10/16/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-17	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-18	3/10/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-18	10/29/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-18	4/22/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-18	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-18	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-18	10/16/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-18	10/31/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-19	3/6/2014	µg/L	<67	<51	<51	<48	<52	<40	<62	<65	<72	639 J	14000	<40	<69	<60	<65	<130
MW-19	10/28/2014	µg/L	16 J	<5.1	12 J	<4.8	<5.2	<4	<6.2	<6.5	<7.2	<40	3470	<4	<6.9	<6	<6.5	<13
MW-19	4/21/2015	µg/L	19.8 J	<4	15.6 J	<4	<4.3	<5.9	<6	12.5 J	<4	<40	4170	<8	<4.2	5.5 J	<5	<10
MW-19	10/28/2015	µg/L	34.6	<5	21.6 J	<5	<5.4	<7.4	<7.5	<5.5	<5	<50	8040	<10	<5.2	<5.4	<6.3	<13
MW-19	4/12/2016	µg/L	97.5	<26	39.1	<28	<24	<23	<30	<31	<26	221	16600	<20	<33	<27	<31	<56
MW-19	10/24/2016	µg/L	245	<51	<43	<57	<48	<46	<60	<62	<52	<400	34600	<40	<66	<54	<63	<110
MW-19	4/11/2017	µg/L	180 J	<85	<81	<78	<61	<130	<75	<69	<69	<500	24600	<75	<55	<86	<100	<180
MW-19	10/18/2017	µg/L	74.9 J	<85	<81	<78	<61	<130	299	<69	<69	<500	18700	<75	<55	<86	<100	<180
MW-19	5/9/2018	µg/L	69.5 J	<85	<81	<78	<61	<130	92.4 J	<69	<69	<500	18700	<75	<55	<86	<100	<180
MW-19	11/1/2018	µg/L	92.9	<0.34	36.1	<0.31	<0.24	<0.53	0.41	6.8	<0.28	<2	21500	0.39	<0.22	11.2	<0.41	<0.72
MW-19	4/22/2019	µg/L	95.2	<85	<81	<78	<61	<130	<75	<69	<69	<500	24400	<75	<55	<86	<100	<180
MW-20	3/6/2014	µg/L	<3.4	<2.6	<2.5	<2.4	<2.6	<2	<3.1	4 J	<3.6	<20	648	<2	<3.4	5 J	<3.3	<6.6
MW-20	10/28/2014	µg/L	<1.7	<1.3	<1.3	<1.2	<1.3	<1	<1.6	<1.6	<1.8	<10	428	<1	<1.7	2.7 J	<1.6	<3.3
MW-20	4/21/2015	µg/L	<1.3	<1	<1.4	<1	<1.1	<1.5	<1.5	2.6 J	<1	<10	452	<2	<1	4.2 J	<1.3	<2.6
MW-20	10/28/2015	µg/L	<1.3	<1	<1.4	<1	<1.1	<1.5	<1.5	<1.1	<1	11.1 J	623	<2	<1	4.6 J	<1.3	<2.6
MW-20	4/12/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	0.72	<0.26	<2	480	<0.2	<0.33	3.2	<0.31	<0.56
MW-20	10/24/2016	µg/L	<2	<2.6	<2.2	<2.8	<2.4	<2.3	<3	<3.1	<2.6	<20	503	<2	<3.3	<2.7	<3.1	<5.6
MW-20	4/11/2017	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	1.5 J	<1.4	<10	438	<1.5	<1.1	3.1 J	<2	<3.6
MW-20	10/18/2017	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	4.8 J	<1.4	<1.4	<10	312	<1.5	<1.1	2.2 J	<2	<3.6
MW-20	5/9/2018	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	3.3 J	<1.4	<10	388	<1.5	<1.1	3.9 J	<2	<3.6
MW-20	11/1/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	2.2	<0.28	<2	462	<0.3	<0.22	3.7	<0.41	<0.72
MW-20	4/22/2019	µg/L	<1.2	<1.7	<1.6	<1.6	<1.2	<2.7	<1.5	<1.4	<1.4	<10	466	<1.5	<1.1	3.6	<2	<3.6
MW-21	3/11/2014	µg/L	<67	<51	<51	<48	<52	<40	<62	466	<72	765 J	16300	<40	<69	209	<65	<130
MW-21	10/28/2014	µg/L	<67	<51	<51	<48	<52	<40	<62	733	<72	<400	14500	<40	<69	354	<65	<130
MW-21	4/22/2015	µg/L	<0.26	<0.2	1	<0.2	<0.22	<0.29	<0.3	351	<0.2	<2	14500	<0.4	<0.21	225	<0.25	0.89 J
MW-21	10/28/2015	µg/L	<13	<10	<14	<10	<11	<15	<15	339	<10	<100	14600	<20	<10	180	<13	<26
MW-21	4/12/2016	µg/L	<10	<13	<11	<14	<12	<12	<15	383	<13	<100	13200	<10	<17	216	<16	<28
MW-21	10/25/2016	µg/L	<0.5	<0.64	<0.54	<0.71	<0.6	<0.58	<0.75	4.2	<0.65	<5	181	<0.5	<0.83	2.3 J	<0.79	<1.4
MW-21	4/12/2017	µg/L	<0.25	<0.34	1.2	<0.31	<0.24	<0.53	<0.3	595	<0.28	<2	18000	<0.3	0.38 J	260	<0.41	1.7 J
MW-21	10/18/2017	µg/L	<62	<85	<81	<78	<61	<130	292	573	<69	<500	23900	<75	<55	252	<100	<180
MW-21	5/10/2018	µg/L	<62	<85	<81	<78	<61	<130	98.8 J	777	<69	<500	25600	<75	<55	311	<100	<180
MW-21	10/31/2018	µg/L	<62	<85	<81	<78	<61	<130	<75	889	<69	<500	23300	<75	<55	384	<100	<180
MW-21	4/23/2019	µg/L	<62	<85	<81	<78	<61	<130	<75	817	<69	<500	20800	<75	<55	314	<100	<180
MW-21D	3/11/2014	µg/L	<0.67	<0.51	1.5 J	<0.48	10.4	1.8 J	131	0.84 J	1.8 J	13.3	283	0.41 J	<0.69	<0.6	<0.65	<1.3
MW-21D	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	2	<0.2	<0.34	<0.3	<0.33	<0.66
MW-21D	4/20/2015	µg/L	<0.26	<0.2	0.89 J	<0.2	<0.22	<0.29	<0.3	0.3 J	<0.2	<2	29.4	<0.4	<0.21	<0.22	<0.25	<0.51
MW-21D	10/27/2015	µg/L	<0.26	<0.2	0.36 J	<0.2	<0.22	<0.29	<0.3	0.23 J	<0.2	2.2 J	90.8	<0.4	<0.21	<0.22	<0.25	<0.51
MW-21D	4/12/2016	µg/L	<0.2	<0.26	0.49	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	8.6	<0.2	<0.33	<0.27	<0.31	<0.56
MW-21D	10/25/2016	µg/L	<0.5	<0.64	1.2 J	<0.71	<0.6	<0.58	<0.75	<0.78	<0.65	<5	169	<0.5	<0.83	<0.68	<0.79	<1.4
MW-21D	4/12/2017	µg/L	<0.25	<0.34	2	<0.31	<0.24	<0.53	<0.3	0.74 J	<0.28	<2	74.6	<0.3	<0.22	0.39 J	<0.41	<0.72
MW-21D	10/18/2017	µg/L	<0.25	<0.34	1.7	<0.31	<0.24	<0.53	<0.3	0.81 J	<0.28	<2	72.9	<0.3	<0.22	0.38 J	<0.41	<0.72
MW-21D	5/9/2018	µg/L	<0.25	<0.34	1.6	<0.31	<0.24	<0.53	<0.3	0.52 J	<0.28	<2	109	<0.3	<0.22	<0.35	<0.41	<0.72
MW-21D	11/1/2018	µg/L	<0.5	<0.68	1.1	<0.62	<0.48	<1.1	<0.6	0.89	<0.55	<4	357	<0.6	<0.44	<0.69	<0.82	<1.4
MW-21D	4/23/2019	µg/L	<0.25	<0.34	1.2	<0.31	<0.24	<0.53	<0.3	0.44	<0.28	<2	38.7	<0.3	<0.22	<0.35	<0.41	<0.72

Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-22D	3/11/2014	µg/L	<0.34	<0.26	2.5	<0.24	7.2	<0.2	180	0.35 J	0.68 J	<2	99.8	<0.2	<0.34	0.33 J	<0.33	<0.66
MW-22D	10/28/2014	µg/L	<0.34	<0.26	3.7	<0.24	<0.26	<0.2	<0.31	0.41 J	<0.36	<2	149	<0.2	<0.34	0.86 J	<0.33	<0.66
MW-22D	4/22/2015	µg/L	0.27 J	<0.2	3.8	<0.2	<0.22	<0.29	<0.3	0.56 J	<0.2	<2	107	<0.4	<0.21	0.68 J	<0.25	<0.51
MW-22D	10/27/2015	µg/L	0.38 J	<0.2	2.9	<0.2	<0.22	<0.29	<0.3	0.4 J	<0.2	<2	156	<0.4	<0.21	0.44 J	<0.25	<0.51
MW-22D	4/12/2016	µg/L	<0.2	<0.26	1.5	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	65.7	<0.2	<0.33	0.35	<0.31	<0.56
MW-22D	10/25/2016	µg/L	<0.2	<0.26	2.2	<0.28	<0.24	<0.23	<0.3	0.38 J	<0.26	<2	122	<0.2	<0.33	0.62 J	<0.31	<0.56
MW-22D	4/10/2017	µg/L	<0.5	<0.68	2	<0.62	<0.48	<1.1	<0.6	0.61 J	<0.55	<4	96.6	<0.6	<0.44	0.79 J	<0.82	<1.4
MW-22D	10/18/2017	µg/L	<0.25	<0.34	2.4	<0.31	<0.24	<0.53	<0.3	0.64 J	<0.28	<2	130	<0.3	<0.22	0.63 J	<0.41	<0.72
MW-22D	5/8/2018	µg/L	<0.25	<0.34	2.9	<0.31	<0.24	<0.53	<0.3	0.93 J	<0.28	<2	106	<0.3	<0.22	0.79 J	<0.41	<0.72
MW-22D	10/31/2018	µg/L	<0.25	<0.34	2.8	<0.31	<0.24	<0.53	<0.3	0.93	<0.28	<2	159	<0.3	<0.22	0.74	<0.41	<0.72
MW-22D	4/23/2019	µg/L	<0.5	<0.68	1.6	<0.62	<0.48	<1.1	<0.6	<0.55	<0.55	<4	133	<0.6	<0.44	<0.69	<0.82	<1.4
MW-23D	3/12/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-23D	10/28/2014	µg/L	<0.34	<0.26	<0.25	<0.24	<0.26	<0.2	<0.31	<0.33	<0.36	<2	<0.26	<0.2	<0.34	<0.3	<0.33	<0.66
MW-23D	4/21/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-23D	10/27/2015	µg/L	<0.26	<0.2	<0.27	<0.2	<0.22	<0.29	<0.3	<0.22	<0.2	<2	<0.33	<0.4	<0.21	<0.22	<0.25	<0.51
MW-23D	4/13/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-23D	10/26/2016	µg/L	<0.2	<0.26	<0.22	<0.28	<0.24	<0.23	<0.3	<0.31	<0.26	<2	<0.3	<0.2	<0.33	<0.27	<0.31	<0.56
MW-23D	4/10/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-23D	10/17/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-23D	5/8/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-23D	11/1/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-24	12/4/2015	µg/L	<1.3	<1	<1.4	<1	<1.1	<1.5	<1.5	2.9	<1	<10	344	<2	<1	<1.1	<1.3	<2.6
MW-24	4/12/2016	µg/L	<1	<1.3	<1.1	<1.4	<1.2	<1.2	<1.5	59.2	<1.3	<10	1160	<1	<1.7	6.1	<1.6	<2.8
MW-24	10/24/2016	µg/L	<4	<5.1	<4.3	<5.7	<4.8	<4.6	<6	22.9	<5.2	<40	1340	<4	<6.6	<5.4	<6.3	<11
MW-24	4/12/2017	µg/L	<5	<6.8	<6.4	<6.2	<4.8	<11	<6	52.7	<5.5	<40	2070	<6	<4.4	8.4 J	<8.2	<14
MW-24	10/18/2017	µg/L	<5	<6.8	<6.4	<6.2	<4.8	<11	<6	49.9	<5.5	<40	1600	7.2 J	<4.4	<6.9	<8.2	<14
MW-24	5/9/2018	µg/L	<5	<6.8	<6.4	<6.2	<4.8	<11	<6	43.5	<5.5	<40	2050	<6	<4.4	<6.9	<8.2	<14
MW-24	11/1/2018	µg/L	<6.2	<8.5	<8.1	<7.8	<6.1	<13	<7.5	55.3	<6.9	<50	2320	<7.5	<5.5	<8.6	<10	<18
MW-24	4/24/2019	µg/L	<5	<6.8	<6.4	<6.2	<4.8	<11	<6	27.4	<5.5	<40	2290	<6	<4.4	<6.9	<8.2	<14
MW-25D	12/4/2015	µg/L	<0.26	<0.2	3.4	<0.2	<0.22	<0.29	<0.3	1.3	<0.2	<2	129	<0.4	<0.21	0.95	<0.25	<0.51
MW-25D	4/12/2016	µg/L	<0.2	<0.26	3.4	<0.28	<0.24	<0.23	<0.3	1.1	<0.26	<2	74.8	<0.2	<0.33	0.96	<0.31	<0.56
MW-25D	10/25/2016	µg/L	<0.4	<0.51	2.3	<0.57	<0.48	<0.46	<0.6	0.89 J	<0.52	6.1 J	125	<0.4	<0.66	0.84 J	<0.63	<1.1
MW-25D	4/10/2017	µg/L	<0.5	<0.68	3.1	<0.62	<0.48	<1.1	<0.6	1 J	<0.55	<4	105	<0.6	<0.44	0.88 J	<0.82	<1.4
MW-25D	10/18/2017	µg/L	<0.25	<0.34	3.1	<0.31	<0.24	<0.53	<0.3	1.1	<0.28	<2	116	<0.3	<0.22	0.8 J	<0.41	<0.72
MW-25D	5/8/2018	µg/L	<0.25	<0.34	3.8	<0.31	<0.24	<0.53	<0.3	1.4	<0.28	<2	123	<0.3	<0.22	0.98 J	<0.41	<0.72
MW-25D	10/31/2018	µg/L	<0.5	<0.68	3.3	<0.62	<0.48	<1.1	<0.6	1.7	<0.55	<4	158	<0.6	<0.44	0.91	<0.82	<1.4
MW-25D	4/23/2019	µg/L	<0.5	<0.68	3.1	<0.62	<0.48	<1.1	<0.6	1	<0.55	<4	195	<0.6	<0.44	1.2	<0.82	<1.4
MW-26D	12/4/2015	µg/L	<0.26	<0.2	1.9	<0.2	<0.22	<0.29	<0.3	1.1	<0.2	<2	98.1	<0.4	<0.21	1.1	<0.25	<0.51
MW-26D	4/12/2016	µg/L	<0.2	<0.26	1.8	<0.28	<0.24	<0.23	<0.3	0.93	<0.26	<2	62.6	<0.2	<0.33	1.1	<0.31	<0.56
MW-26D	10/25/2016	µg/L	<0.2	<0.26	1.6	<0.28	<0.24	<0.23	<0.3	1	<0.26	<2	75	<0.2	<0.33	0.97 J	<0.31	<0.56
MW-26D	4/10/2017	µg/L	<0.25	<0.34	1.9	<0.31	<0.24	<0.53	<0.3	0.97 J	<0.28	<2	75.2	<0.3	<0.22	1.2	<0.41	<0.72
MW-26D	10/18/2017	µg/L	<0.25	<0.34	1.9	<0.31	<0.24	<0.53	<0.3	1.1	<0.28	<2	76	<0.3	<0.22	1.1	<0.41	<0.72
MW-26D	5/8/2018	µg/L	<0.25	<0.34	2	<0.31	<0.24	<0.53	<0.3	1.2	<0.28	<2	88.6	<0.3	<0.22	1.2	<0.41	<0.72
MW-26D	10/31/2018	µg/L	<0.25	<0.34	2.4	<0.31	<0.24	<0.53	<0.3	1.6	<0.28	<2	89.5	<0.3	<0.22	1.2	<0.41	<0.72
MW-26D	4/23/2019	µg/L	<0.25	<0.34	1.3	<0.31	<0.24	<0.53	<0.3	0.79	<0.28	<2	89.9	<0.3	<0.22	1.2	<0.41	<0.72
MW-27	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	1	<0.3	<0.22	<0.35	<0.41	<0.72
MW-27	10/18/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.39 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-27	5/8/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-27	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-27	4/23/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-28	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.24 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-28	10/18/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-28	5/8/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-28	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-28	4/23/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-29	4/12/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	5.4	<0.3	<0.22	<0.35	<0.41	<0.72
MW-29	10/18/2017	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	0.56 J	<0.3	<0.22	<0.35	<0.41	<0.72
MW-29	5/8/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-29	10/30/2018	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-29	4/23/2019	µg/L	<0.25	<0.34	<0.32	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	<0.22	<0.3	<0.22	<0.35	<0.41	<0.72
MW-30D	4/13/2017	µg/L	<0.25	<0.34	2.3	<0.31	<0.24	<0.53	0.41 J	0.64 J	<0.28	<2	75.2	<0.3	<0.22</			

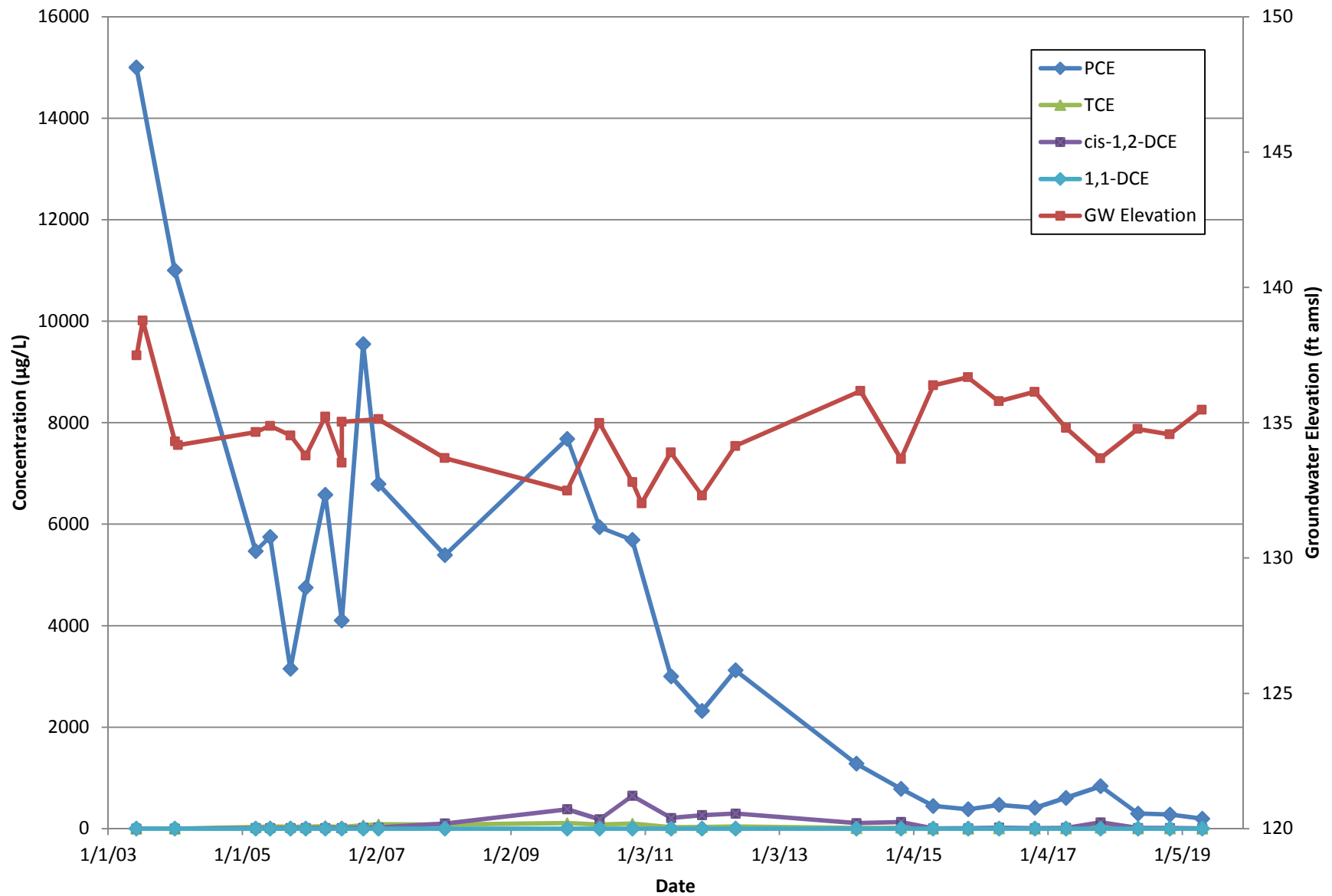
Appendix D
Historical VOC Data
Delavan Spray Technologies Site
Bamberg, South Carolina
AECOM Project No. 60601883

Well No.	Sample Date	Units	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Bromodichloro-methane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Dibromochloro-methane	Methylene Chloride	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride	Xylene (total)
MW-31D	4/13/2017	µg/L	<0.25	<0.34	3.1	<0.31	0.82 J	<0.53	1.8	<0.28	<0.28	<2	89.2	<0.3	<0.22	0.41 J	<0.41	2.6 J
MW-31D	10/18/2017	µg/L	<0.25	<0.34	4.7	<0.31	<0.24	<0.53	<0.3	2	<0.28	<2	161	<0.3	<0.22	0.61 J	<0.41	<0.72
MW-31D	5/8/2018	µg/L	<0.25	<0.34	6	<0.31	<0.24	<0.53	<0.3	2.5	<0.28	<2	181	<0.3	<0.22	1	<0.41	<0.72
MW-31D	10/29/2018	µg/L	<0.5	<0.68	4.8	<0.62	<0.48	<1.1	<0.6	2.6	<0.55	<4	230	<0.6	<0.44	0.87	<0.82	<1.4
MW-31D	4/22/2019	µg/L	<0.62	<0.85	4	<0.78	<0.61	<1.3	<0.75	<0.69	<0.69	<5	232	<0.75	<0.55	<0.86	<1	<1.8
MW-32D	4/13/2017	µg/L	<0.25	<0.34	0.63 J	<0.31	0.27 J	<0.53	0.79 J	<0.28	<0.28	<2	25	<0.3	<0.22	0.36 J	<0.41	1.2 J
MW-32DR	10/18/2017	µg/L	<0.25	<0.34	0.69 J	<0.31	<0.24	<0.53	<0.3	0.33 J	<0.28	<2	26.4	<0.3	<0.22	0.36 J	<0.41	<0.72
MW-32DR	5/8/2018	µg/L	<0.25	<0.34	0.97 J	<0.31	<0.24	<0.53	0.56 J	0.55 J	<0.28	<2	30.4	<0.3	<0.22	0.55 J	<0.41	<0.72
MW-32DR	10/31/2018	µg/L	<0.25	<0.34	0.92	<0.31	<0.24	<0.53	<0.3	0.51	<0.28	<2	39	<0.3	<0.22	0.39	<0.41	<0.72
MW-32DR	4/23/2019	µg/L	<0.25	<0.34	0.62	<0.31	<0.24	<0.53	<0.3	<0.28	<0.28	<2	33.9	<0.3	<0.22	0.6	<0.41	<0.72
MWT-4	8/24/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	68.8	NA	<1.00	136000	8.79	2.03	477	<1.00	37
MWT-5	8/24/2012	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	1.03	<1.00	<1.00	<1.00	<1.00	<3.00
SW-1	6/5/2003	µg/L	<1.0	<1.0	<1.0	NA	NA	NA	NA	1	NA	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<3.0
SW-1	1/9/2008	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
SW-1	11/4/2009	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA
SW-1	4/29/2010	µg/L	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA

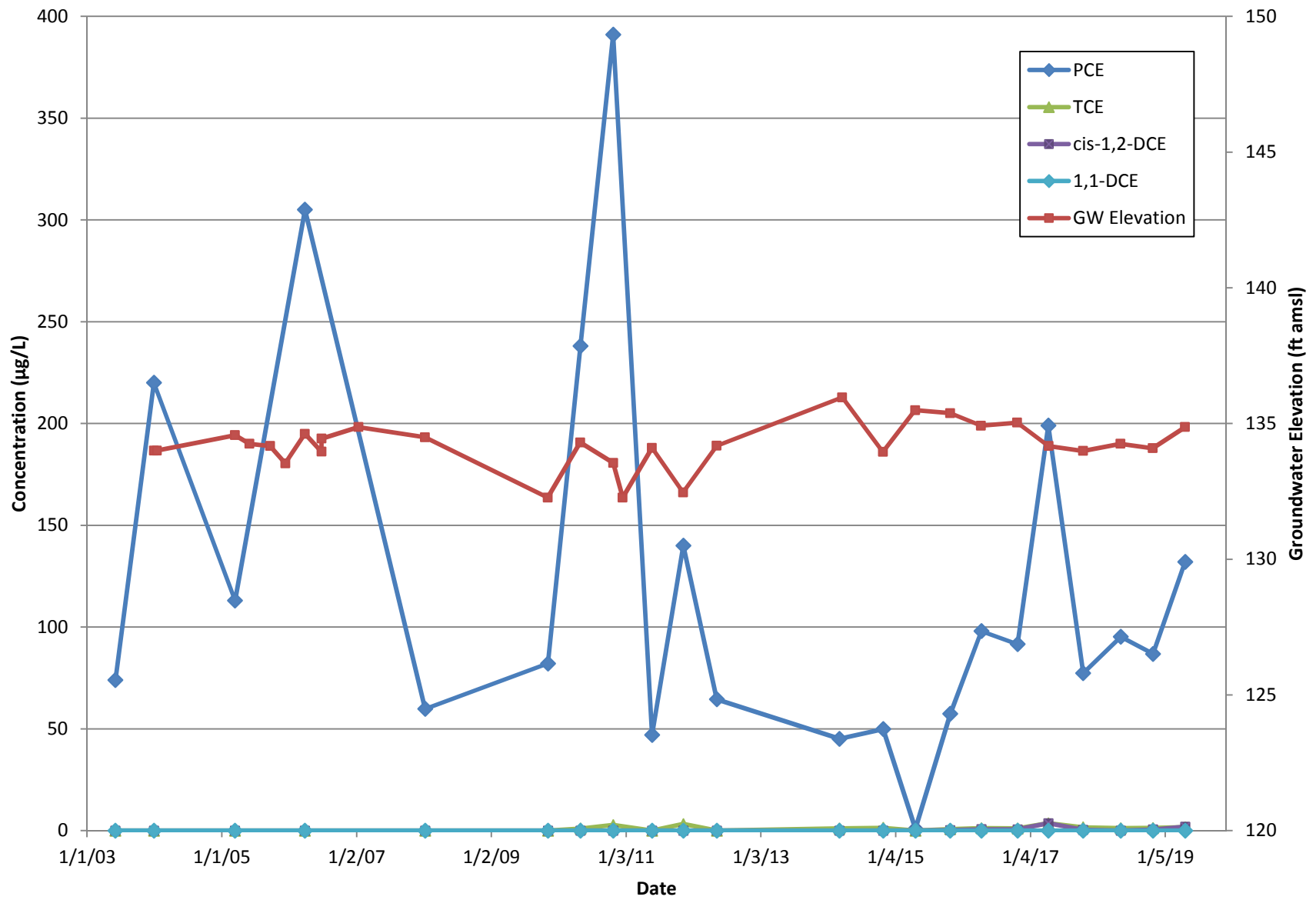
Notes:
µg/L - micrograms per liter NA - Not available NS - Not sampled

**APPENDIX E
TREND PLOTS**

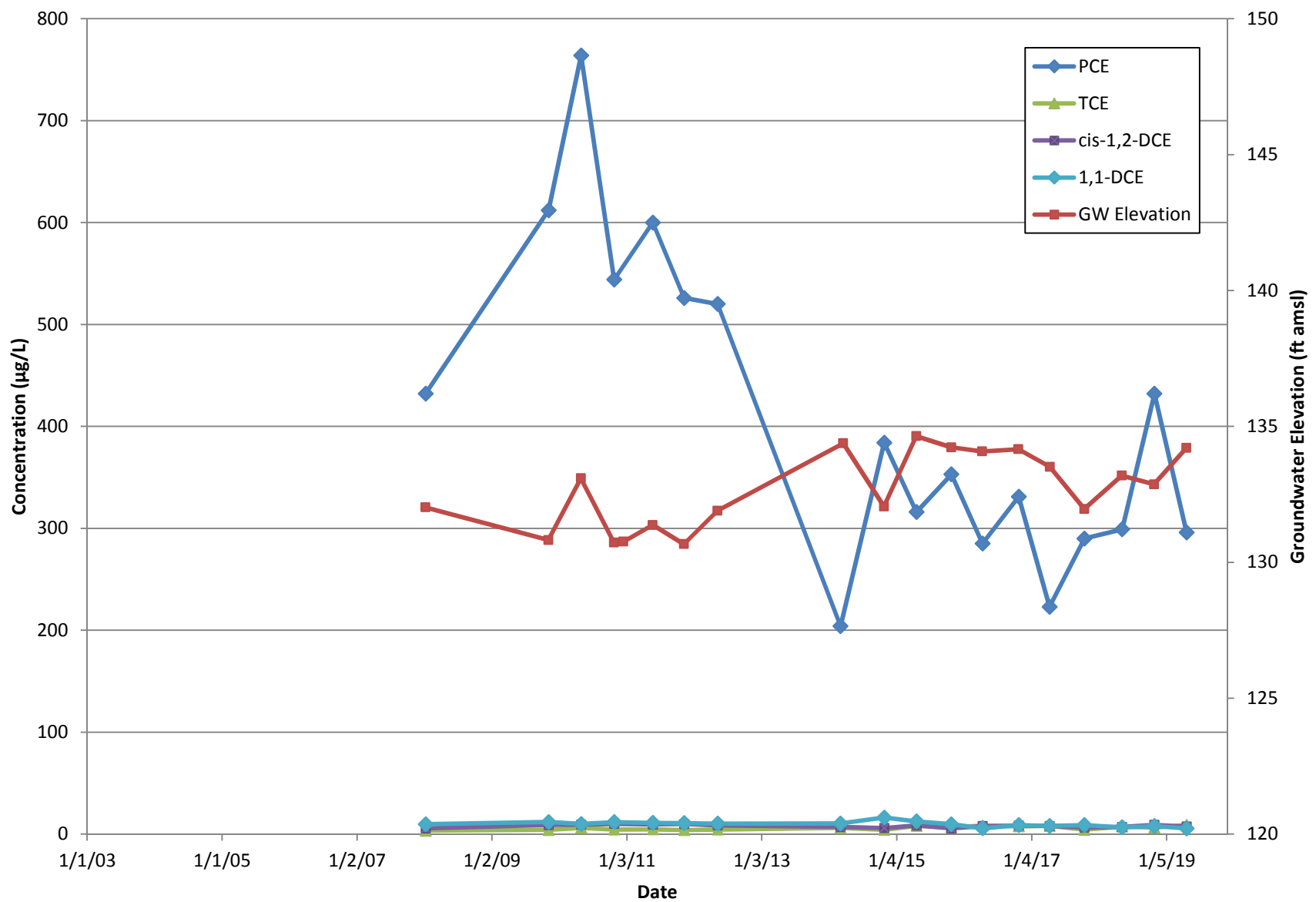
MW-1 Concentrations and Groundwater Elevation with Time



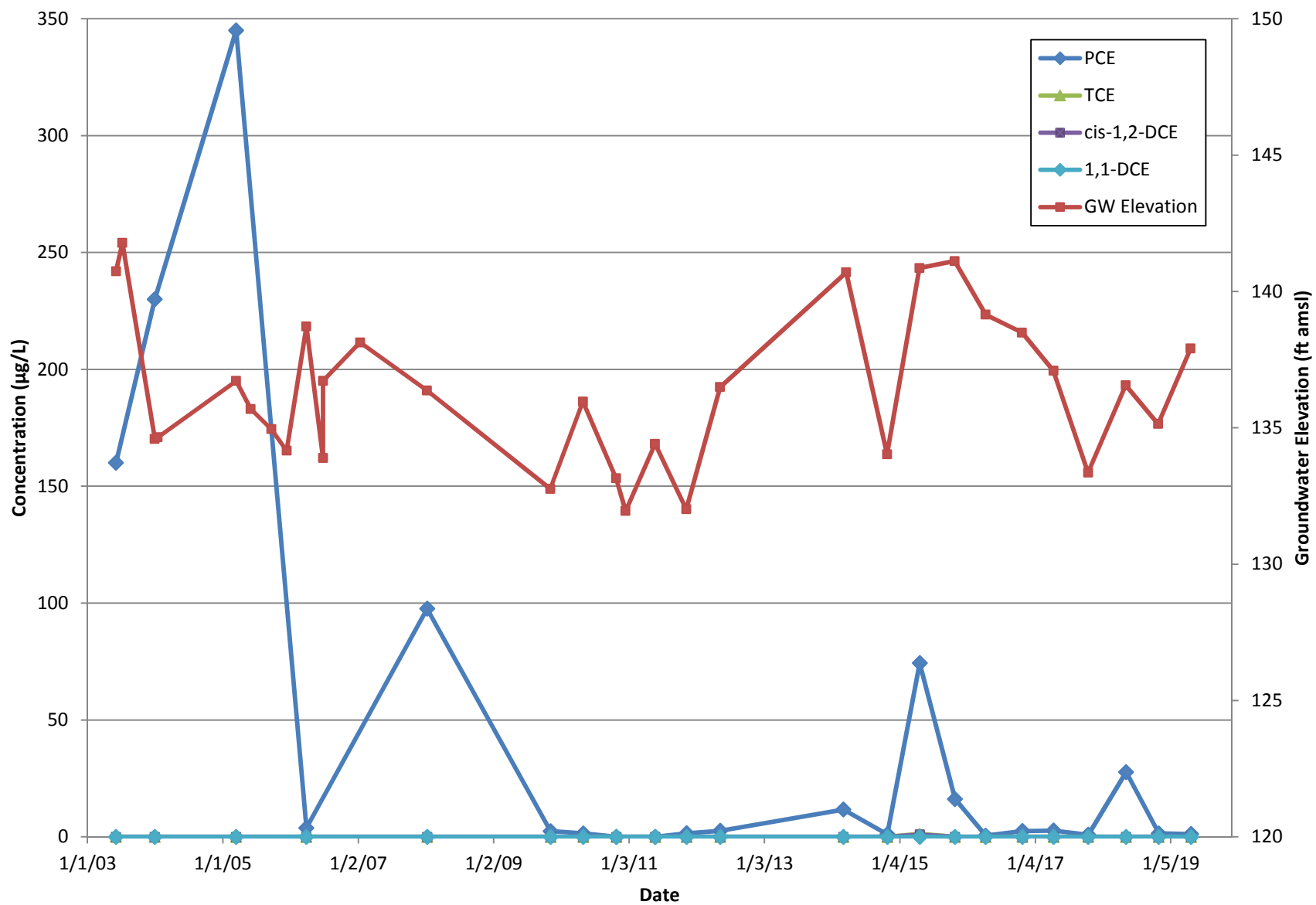
MW-3 Concentrations and Groundwater Elevation with Time



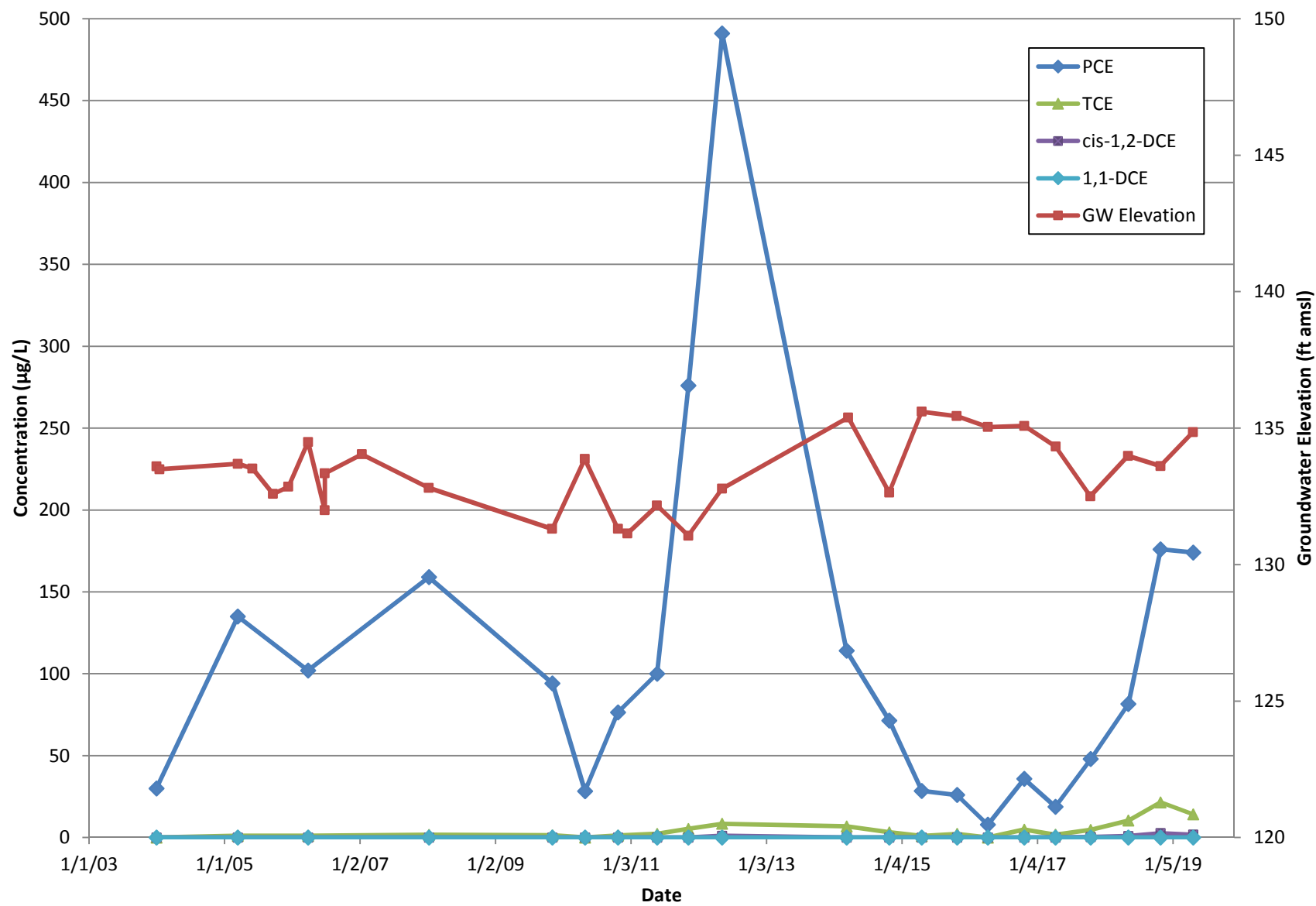
MW-3D Concentrations and Groundwater Elevation with Time



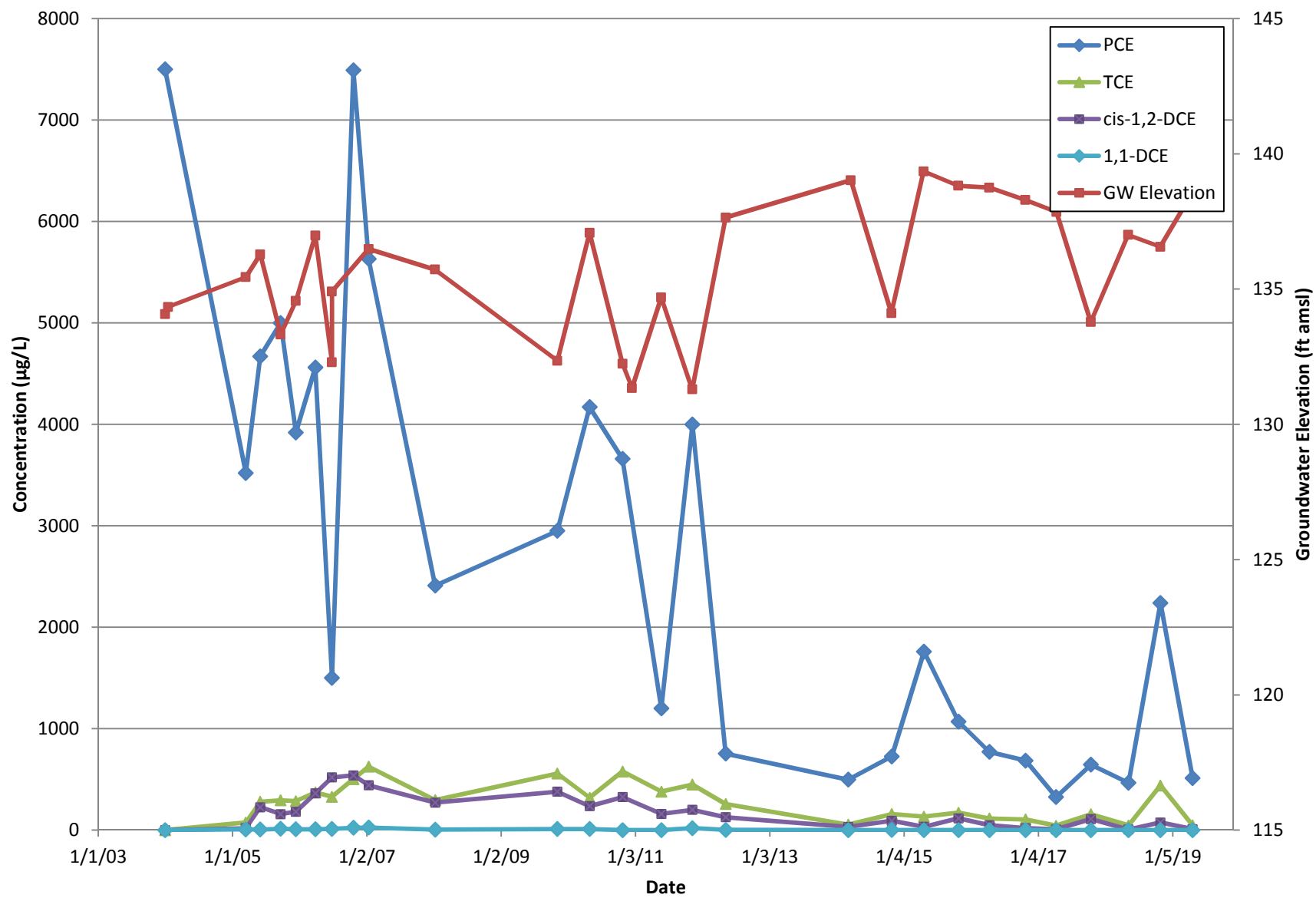
MW-5 Concentrations and Groundwater Elevation with Time



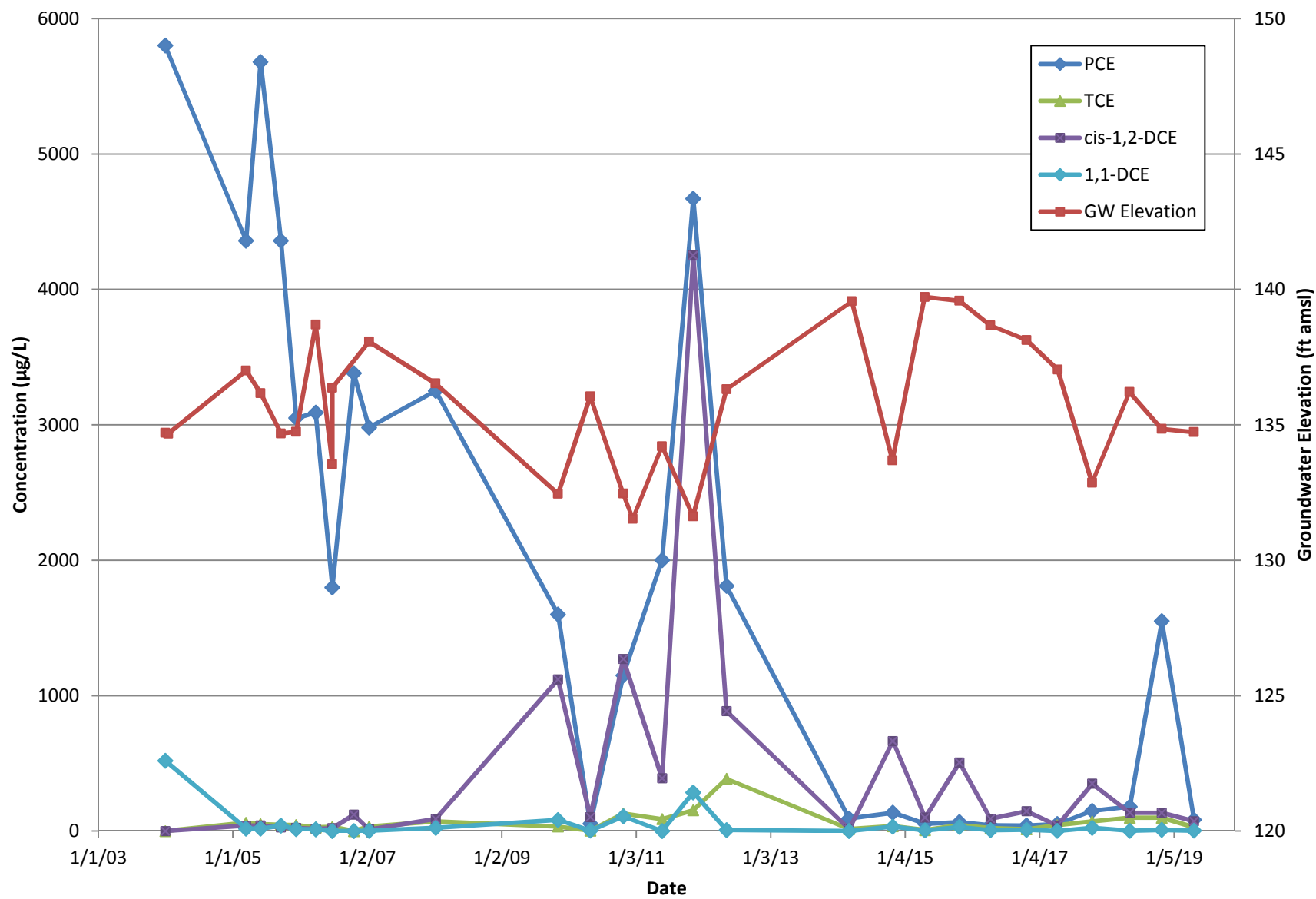
MW-8 Concentrations and Groundwater Elevation with Time



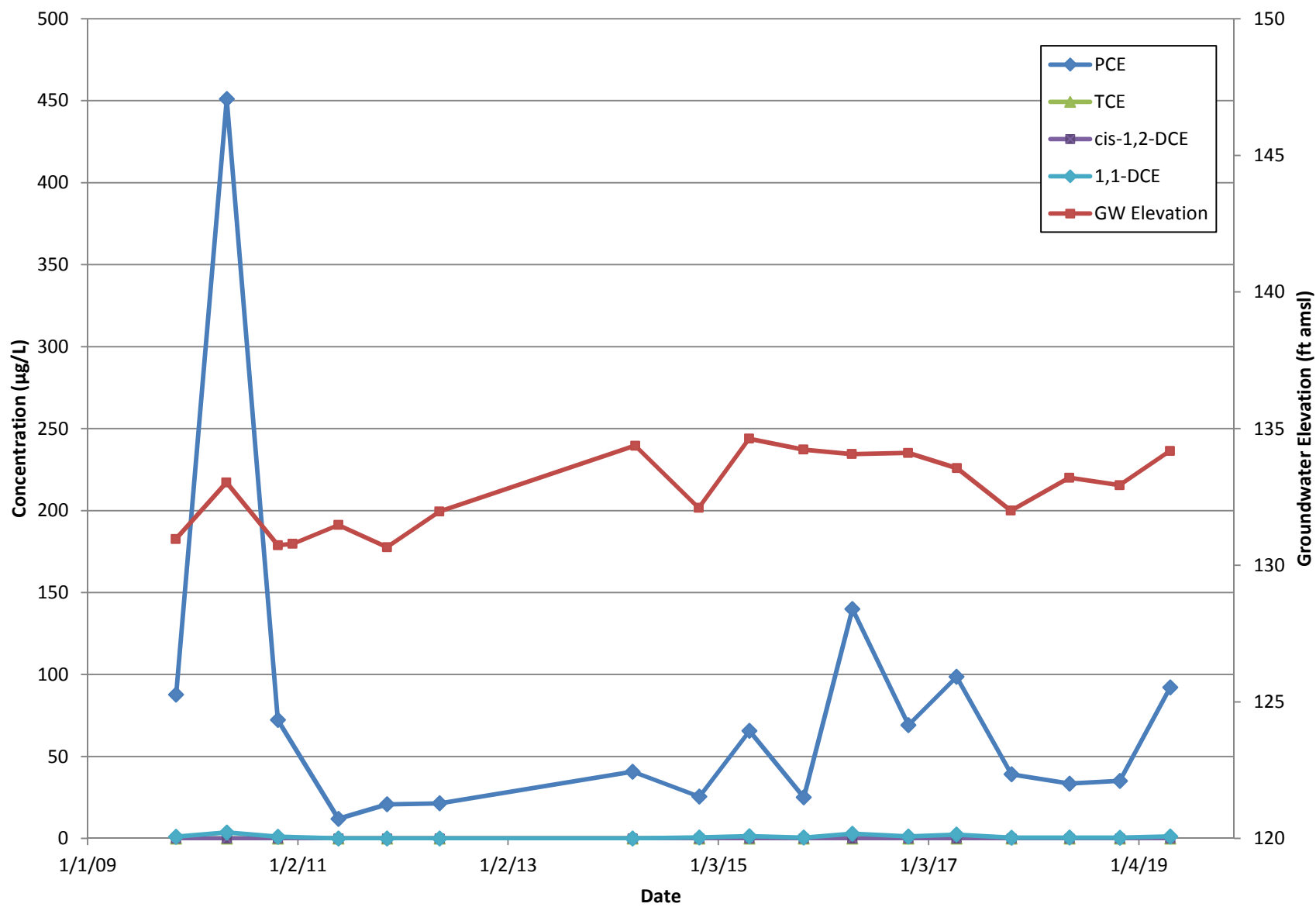
MW-9 Concentrations and Groundwater Elevation with Time



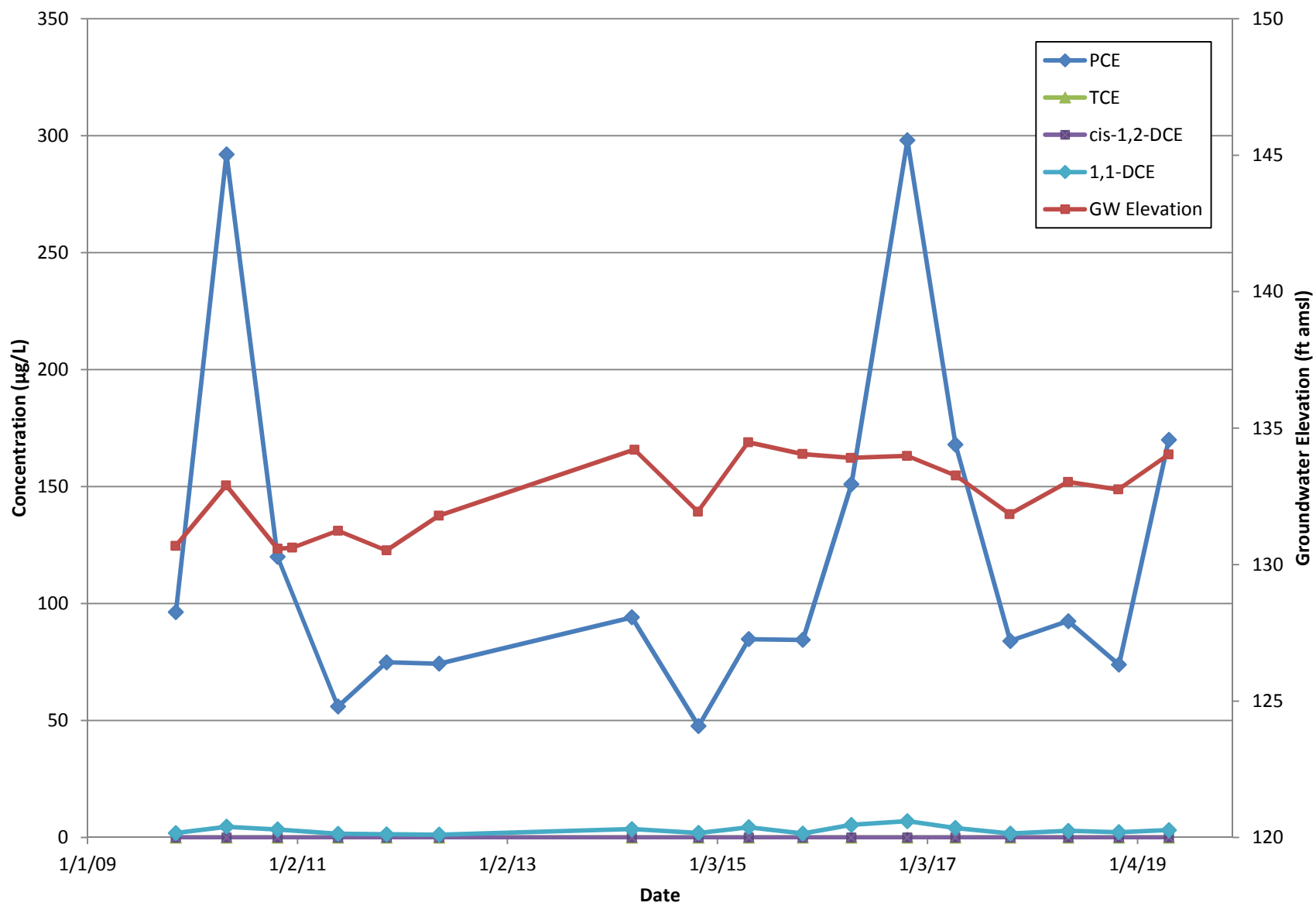
MW-10 Concentrations and Groundwater Elevation with Time



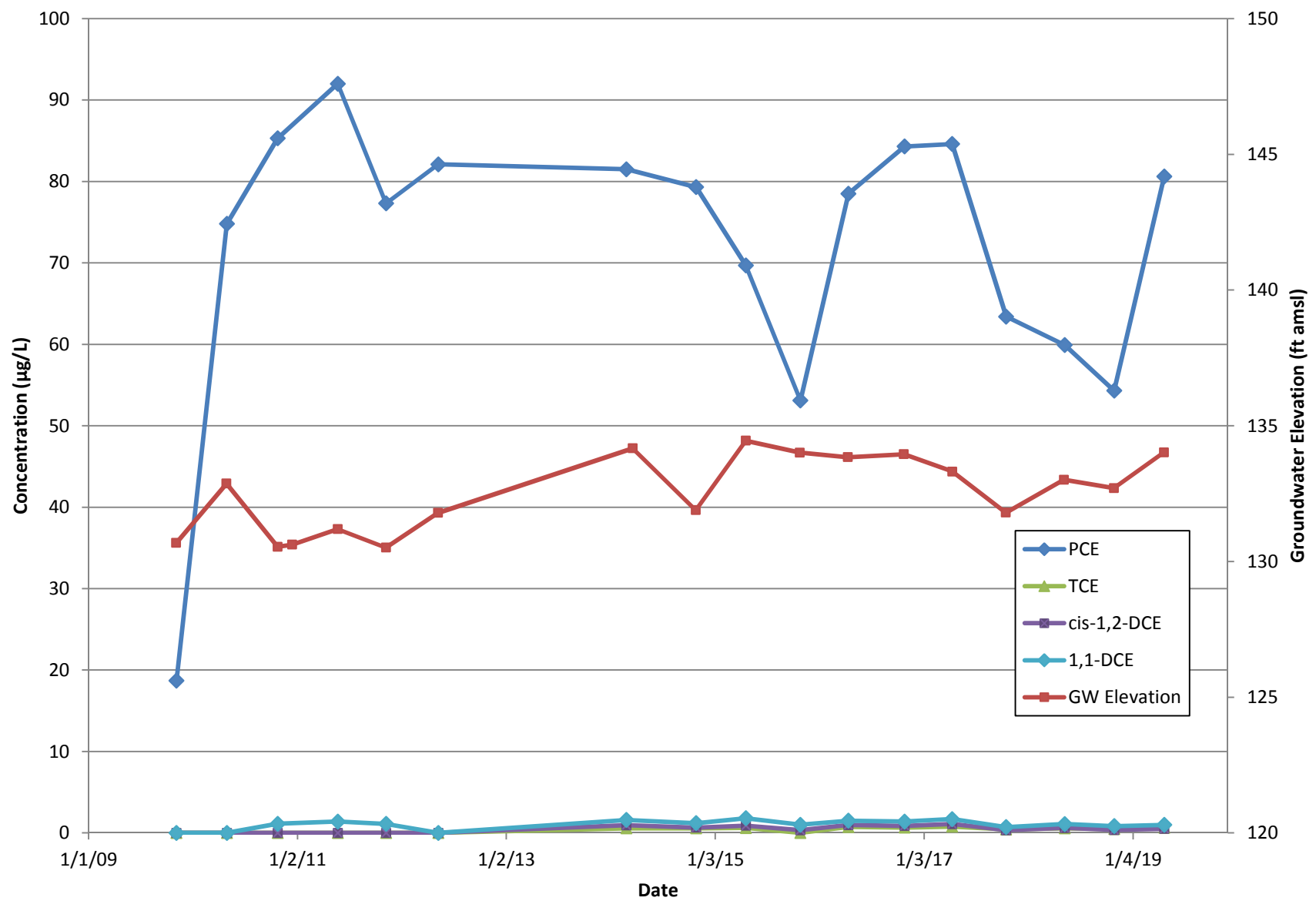
MW-12D Concentrations and Groundwater Elevation with Time



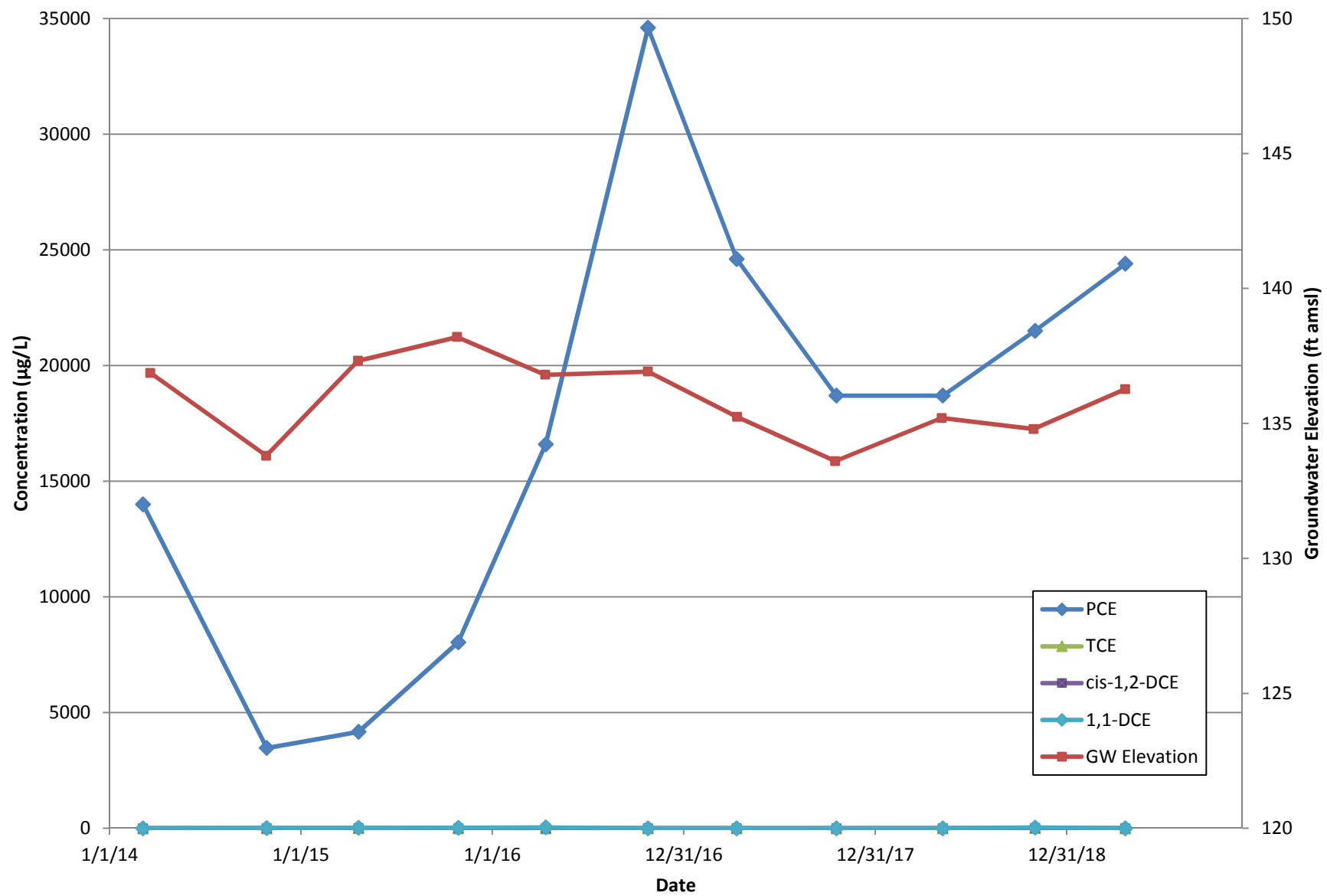
MW-13D Concentrations and Groundwater Elevation with Time



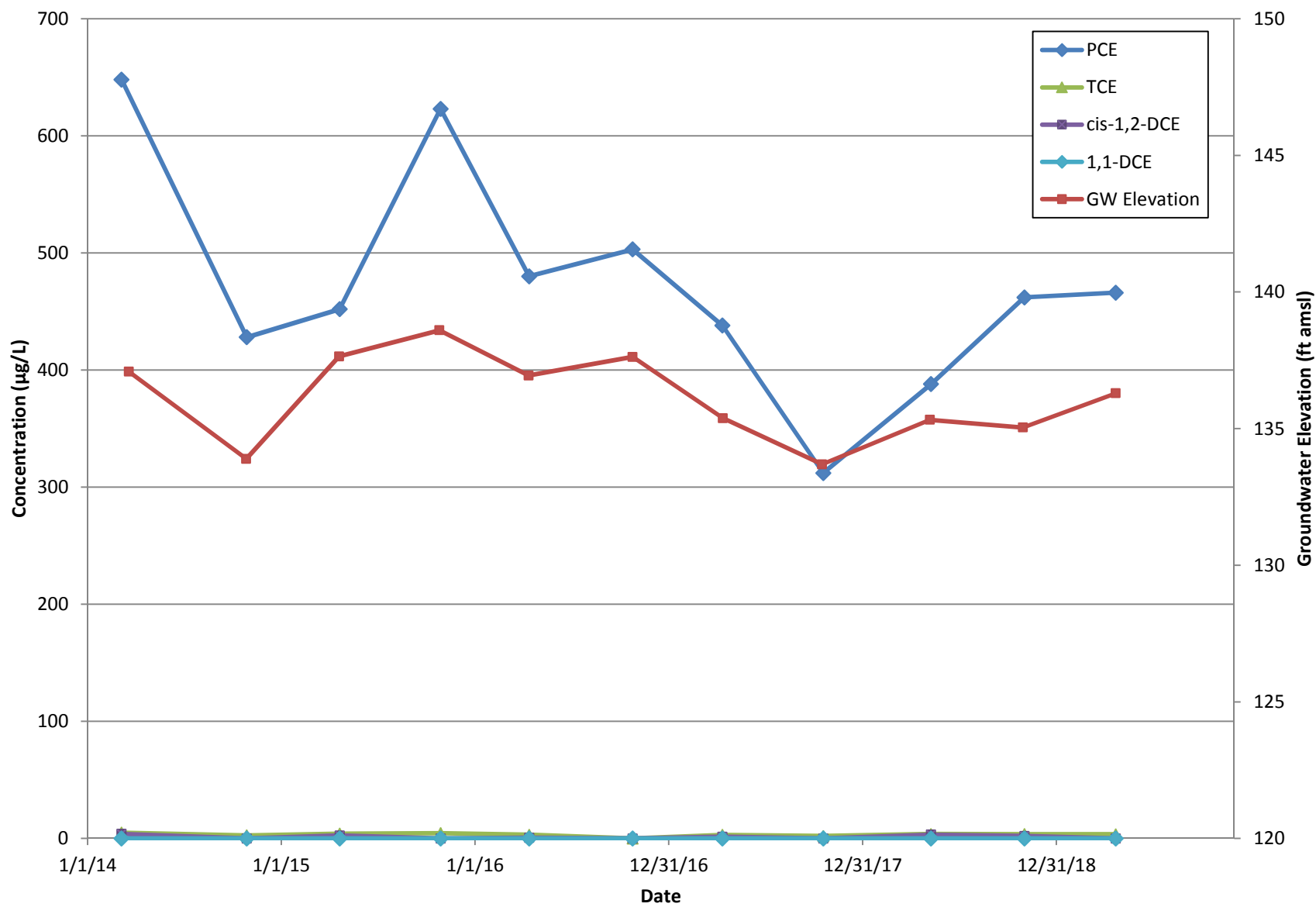
MW-14D Concentrations and Groundwater Elevation with Time



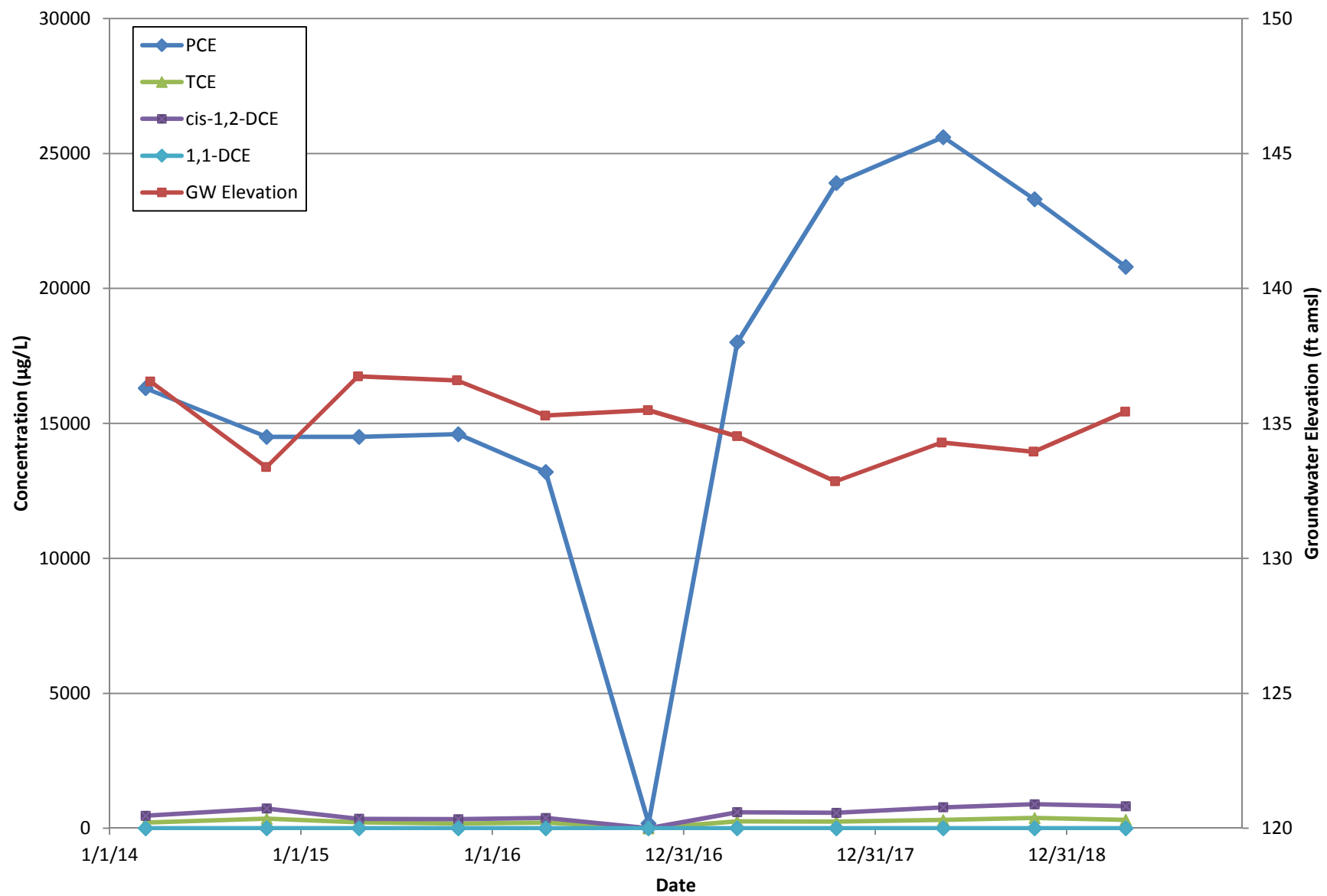
MW-19 Concentrations and Groundwater Elevation with Time



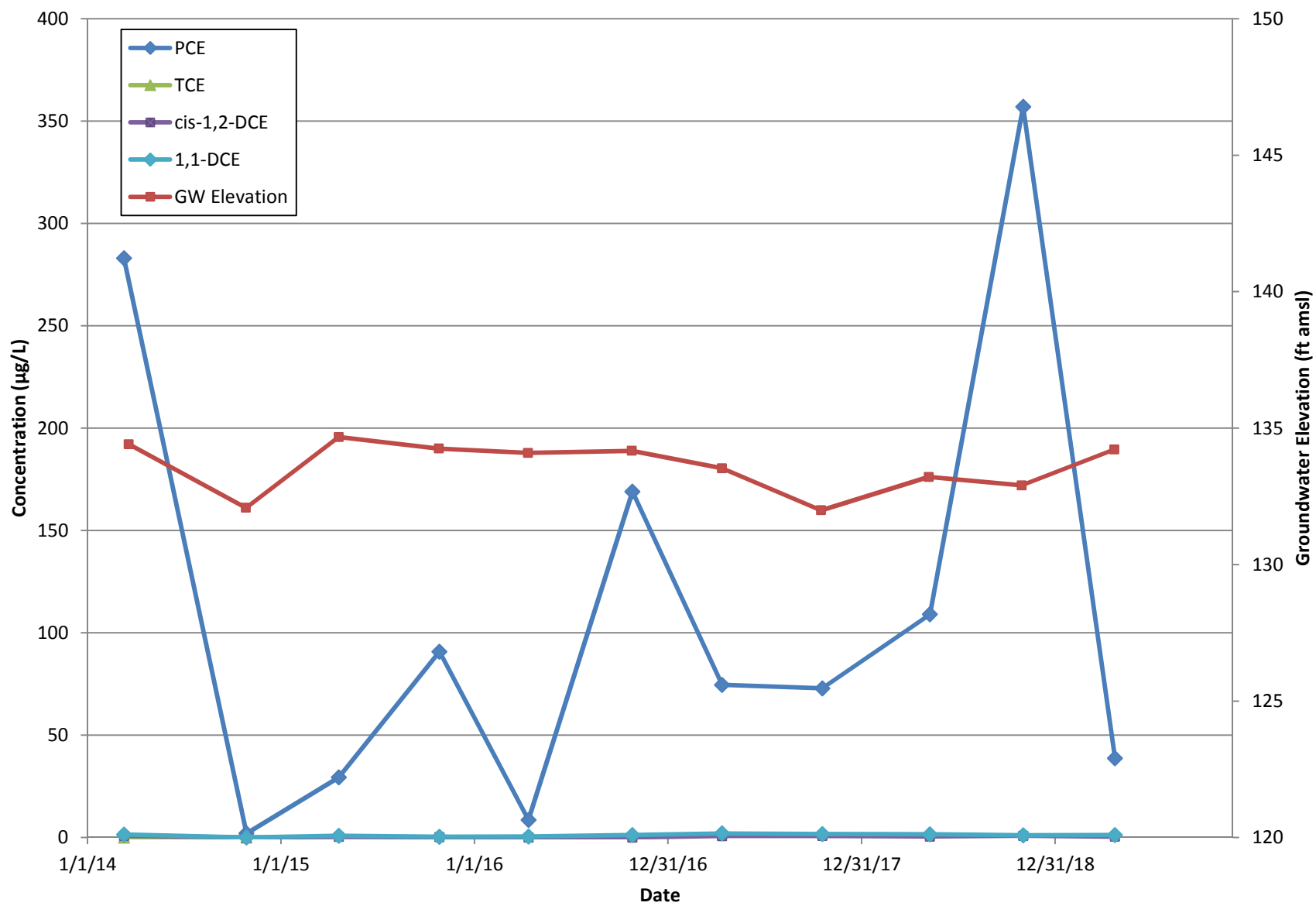
MW-20 Concentrations and Groundwater Elevation with Time



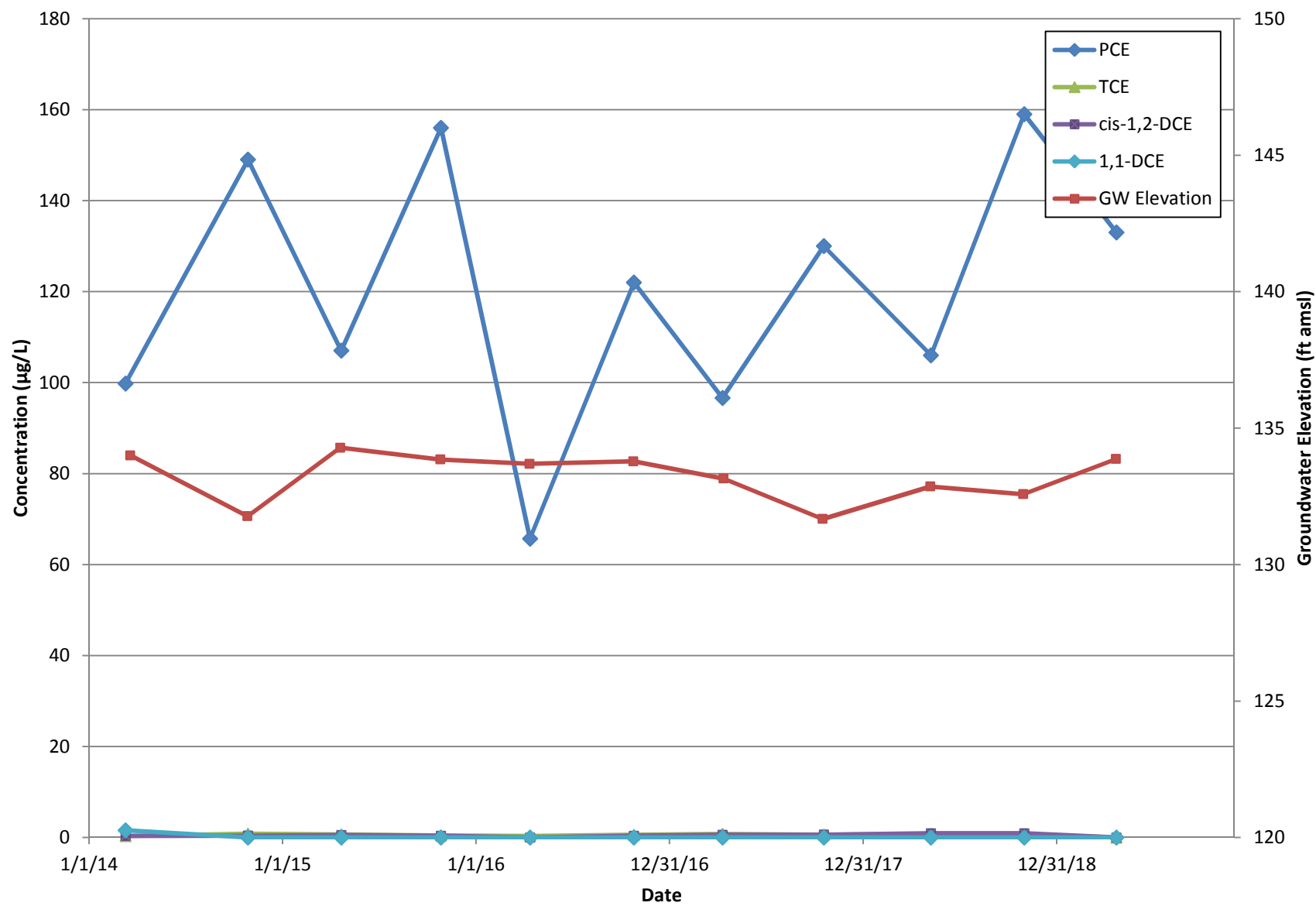
MW-21 Concentrations and Groundwater Elevation with Time



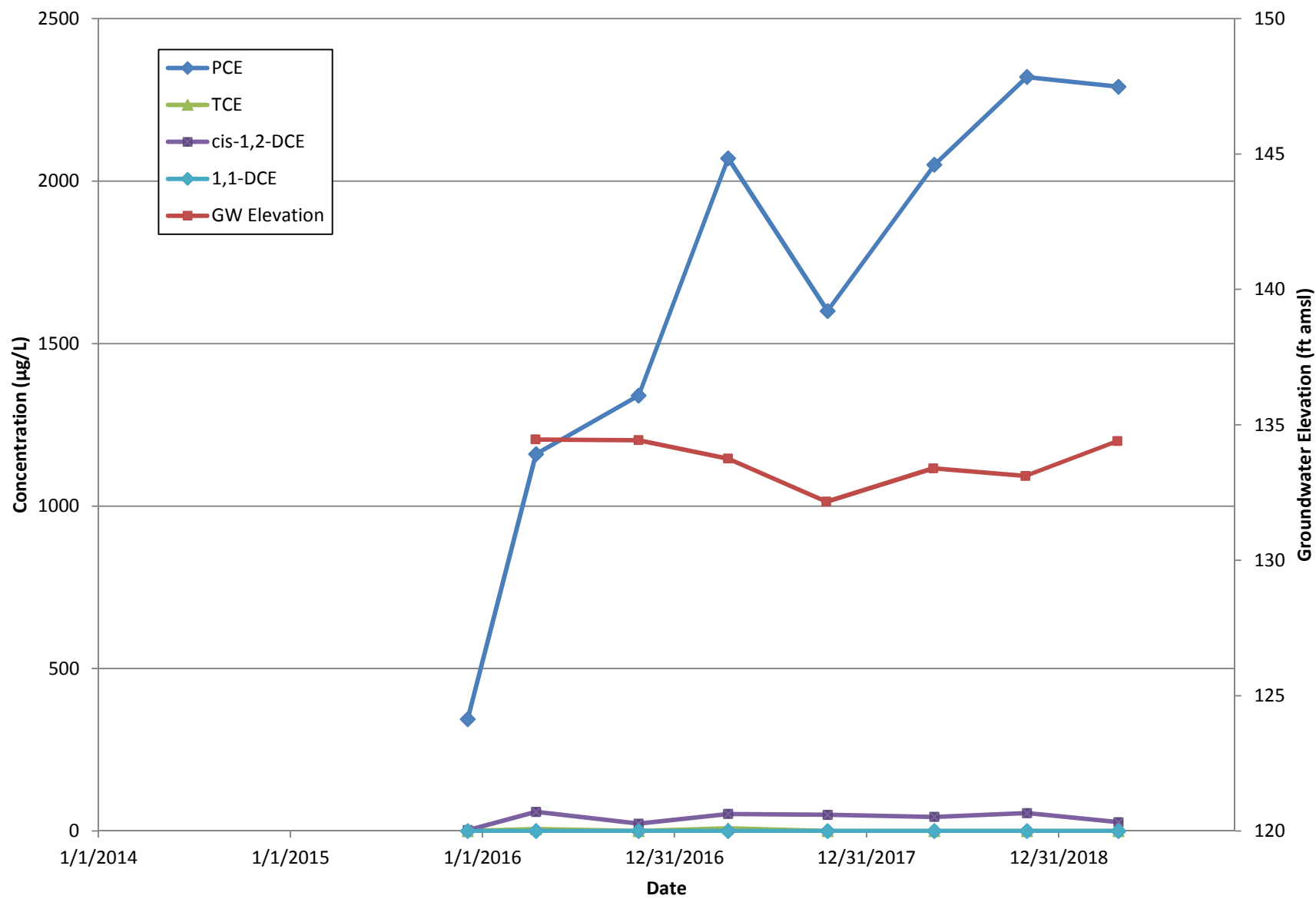
MW-21D Concentrations and Groundwater Elevation with Time



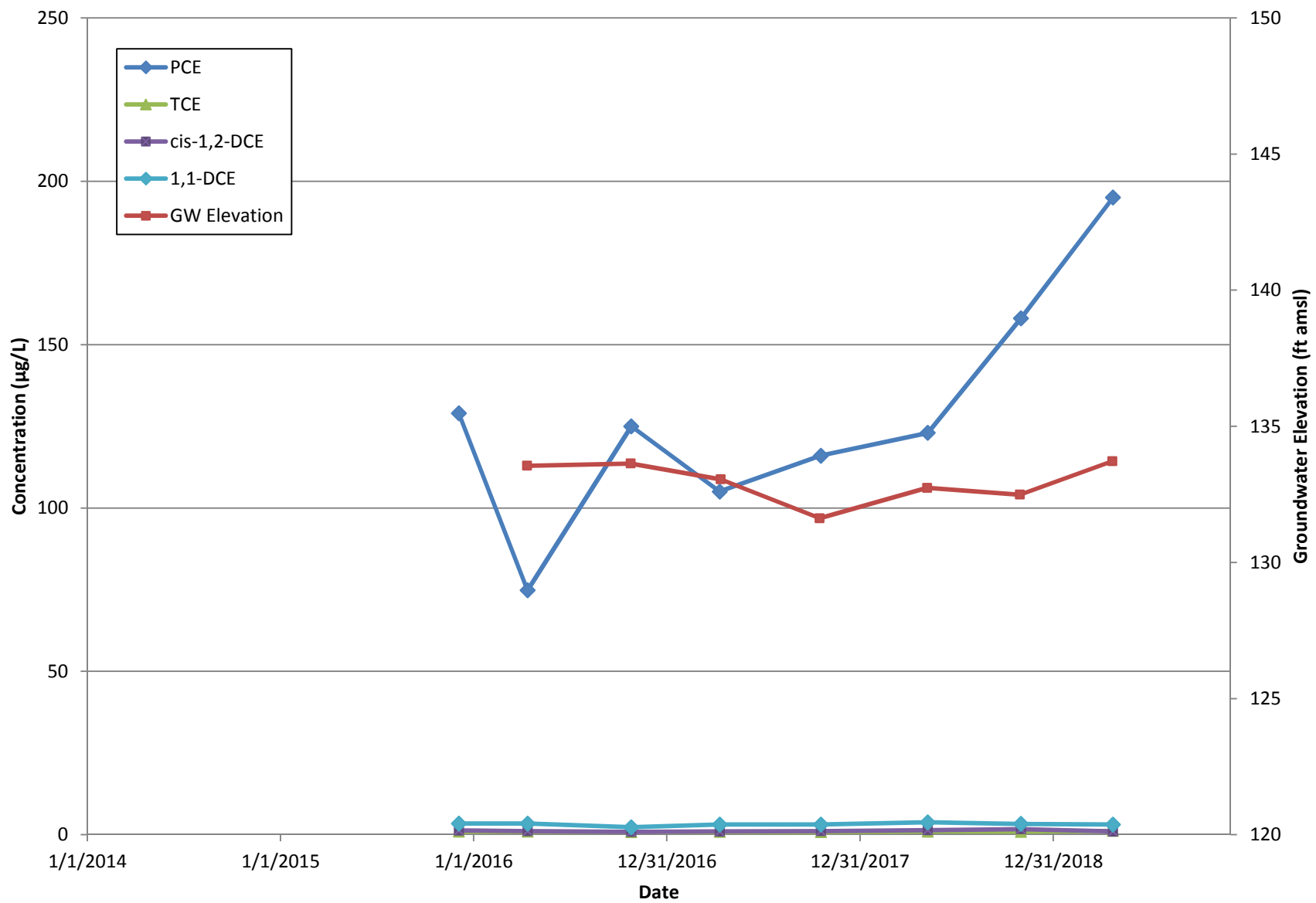
MW-22D Concentrations and Groundwater Elevation with Time



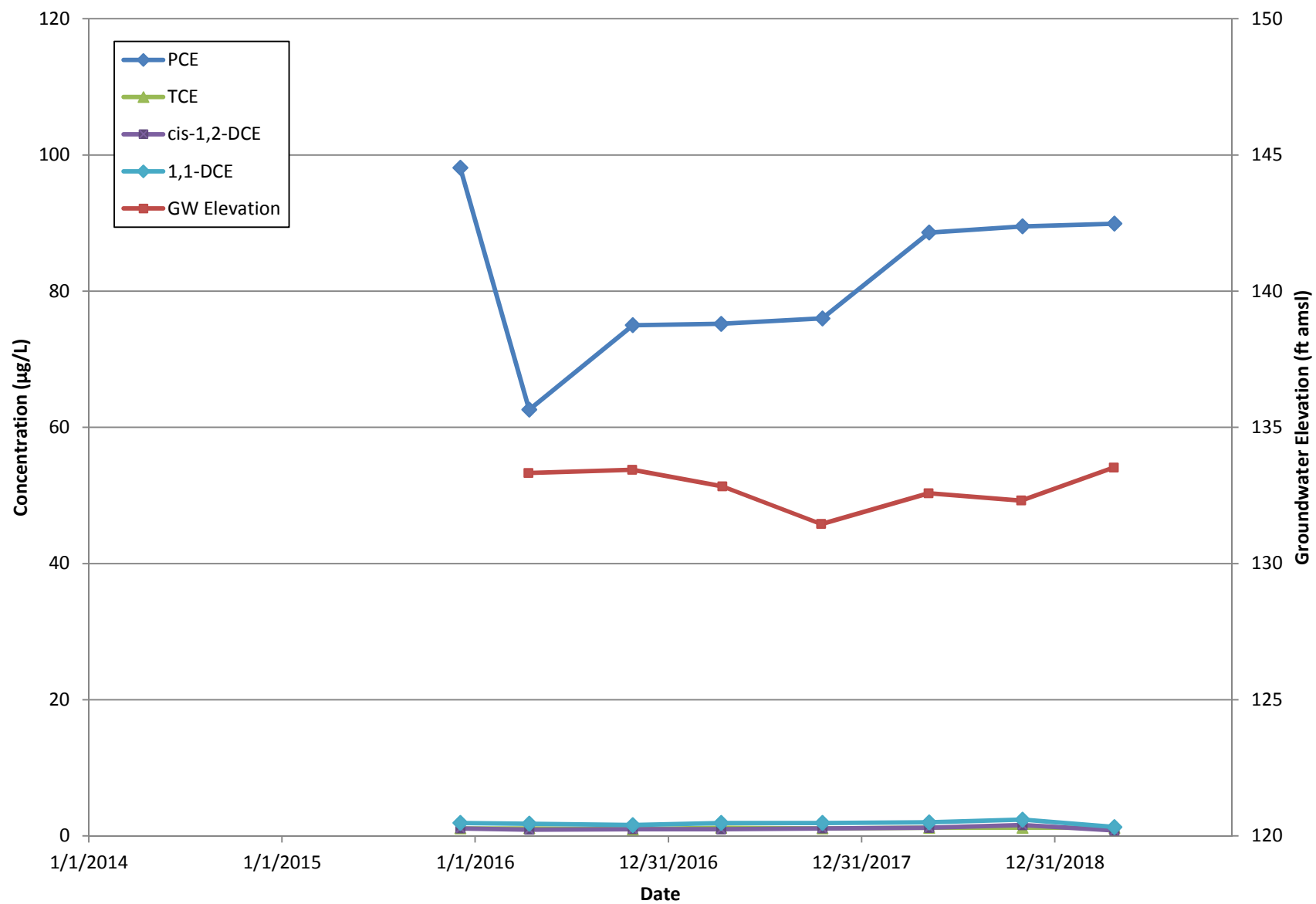
MW-24 Concentrations and Groundwater Elevation with Time



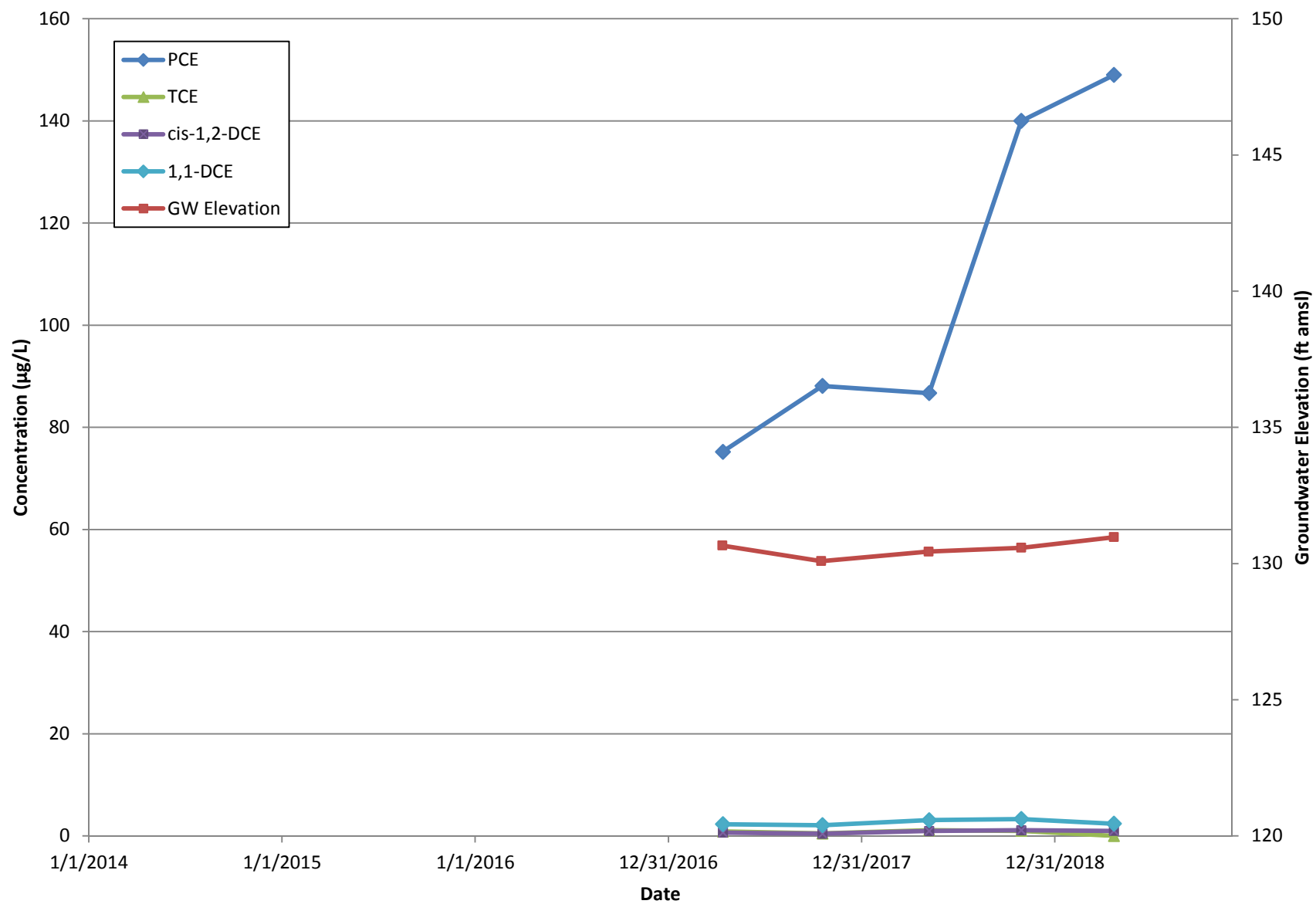
MW-25D Concentrations and Groundwater Elevation with Time



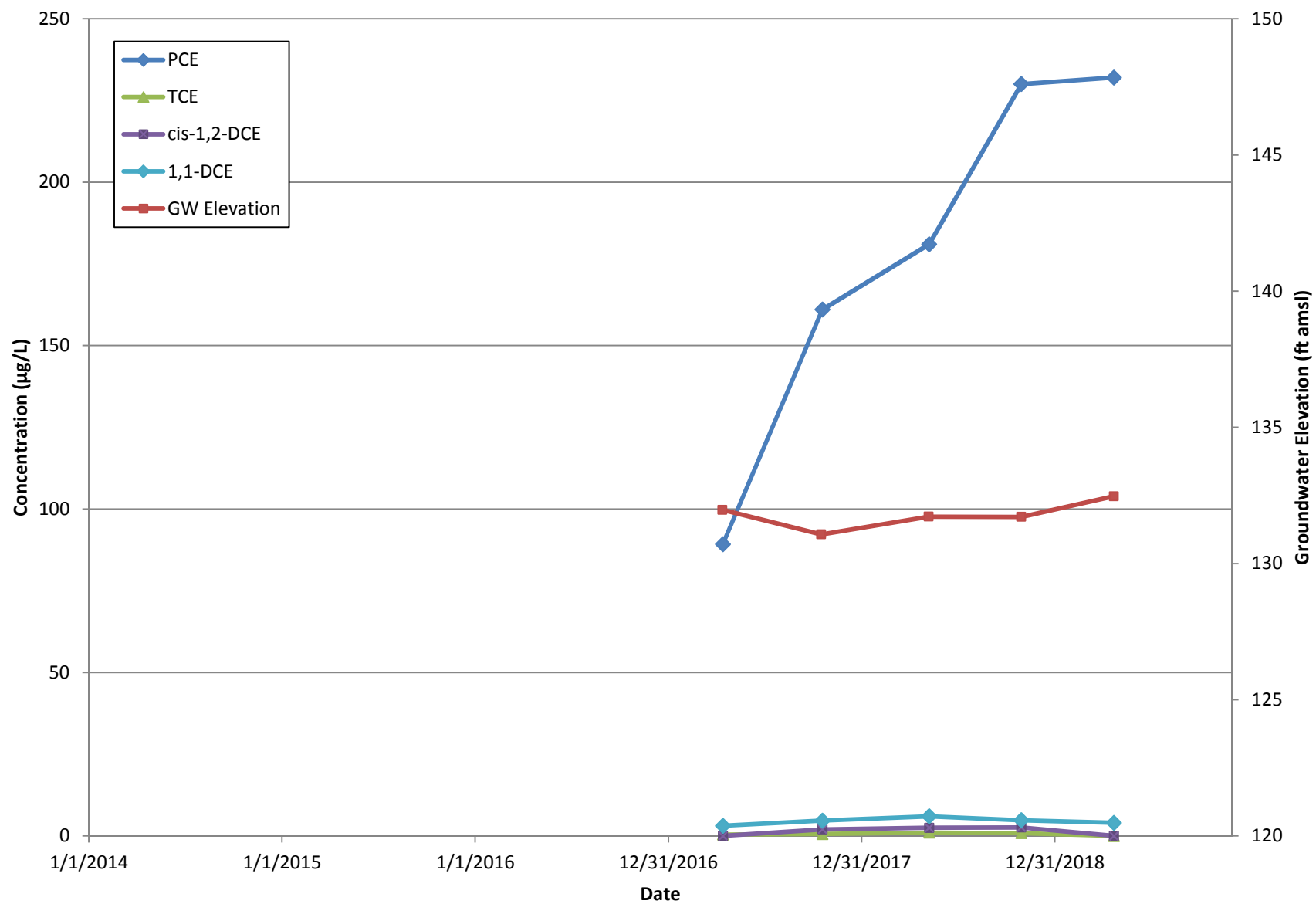
MW-26D Concentrations and Groundwater Elevation with Time



MW-30D Concentrations and Groundwater Elevation with Time



MW-31D Concentrations and Groundwater Elevation with Time



MW-32DR Concentrations and Groundwater Elevation with Time

