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March 27, 2024

Ms. Samantha Downing
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

Subject: 2023 Remedial Action Activities Technical Memorandum; Downtown Environmental Assessment Project; Montgomery, AL

Dear Ms. Downing:

Enclosed are three hard copies and one electronic copy of the *2023 Remedial Action Activities Technical Memorandum,* which is being submitted on behalf of the Downtown Environmental Alliance.

Should you have any questions regarding this document, please contact me at 334-202-6053 or glendon.davis@jacobs.com.

Sincerely,

Glen S. Davis, P.E.
Project Manager

c: Downtown Alliance Members
Ashley Mastin/ADEM
J.P. Martin/Jacobs

2023 Remedial Action Activities Technical Memorandum, Montgomery Downtown Environmental Assessment Project, Montgomery, Alabama

Date: March 27, 2024
Attention: Alabama Department of Environmental Management
Client: Downtown Environmental Alliance
Prepared by: Jacobs

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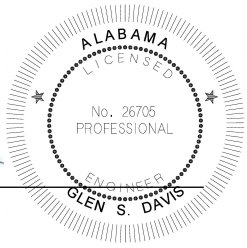


Glen S. Davis, Alabama PE No. 26705

On behalf of the Downtown Environmental Alliance (DEA), Jacobs has prepared this 2023 Remedial Action Activities Technical Memorandum (TM) to document the annual remedial action related activities conducted between January 1, 2023 and December 31, 2023 for the Downtown Environmental Assessment Project (DEAP). In accordance with the *Institutional Controls Plan Addendum, Montgomery Downtown Environmental Assessment Project; Montgomery, Alabama* (ICP Addendum) (CH2M, 2023a), a summary of the annual activities and associated data collected at the DEAP site are now summarized in annual TMs instead of annual Remedial Action Progress Reports (RAPRs). RAPRs will be submitted on a triennial basis and will include additional site inspection activities and analytical data evaluation (i.e., Mann-Kendall trend analysis). Annual activities at the DEAP are conducted in accordance with the *Institutional Controls Plan Downtown Environmental Assessment Project, Montgomery, Alabama* (ICP) (CH2M[1], 2019) and the ICP Addendum. The following activities were conducted in 2023:

- Depth-to-water measurements at the nine shallow and six intermediate zone wells.
- Groundwater samples from six site monitoring wells (MW-02S, MW-03S, MW-08S, MW-12S, MW-13S, and MW-14S) (Figure 1).
- Windshield driving inspection of the DEAP area to review the site for major construction efforts and changes to the property use in the downtown area.
- Management of environmental covenants (ECs) on the project website.
- Mailing institutional control (IC) notification letters annually to ensure that existing and new downtown property owners will be informed of the ICs and City Ordinance for the DEAP.
- Communications with the Community Outreach Group (COG) to keep them informed of project progress and to understand perspectives of people who live, work, or own property in the DEAP project area.
- Maintenance of the project website as a source of information for the public about the project.

In addition to the annual activities described above, the following triennial activities were approved for the DEAP in the ICP Addendum:

- Conduct random property inspections and interviews.
- Submit an RAPR.

[1] CH2M HILL Engineers, Inc. (CH2M) is now part of Jacobs Engineering Group Inc.

The triennial inspections and interviews, in addition to the annual activities identified above, will be completed in 2025 and subsequently documented in an RAPR to be submitted by March 31, 2026. This TM is the first of the annual activities TMs to be prepared for the DEAP.

Summary of 2023 Groundwater Monitoring

Water levels were measured in the shallow and intermediate aquifer monitoring wells at the DEAP site in May 2023. The water levels measured at that time ranged from approximately 24 to 55 feet below ground surface (Table 1). These data indicate that groundwater generally flows west-northwest toward Cypress Creek and the Alabama River (Figure 2), which is consistent with historical data.

Groundwater samples were collected from six shallow aquifer monitoring wells (MW-02S, MW-03S, MW-08S, MW-12S, MW-13S, and MW-14S) between May 30 and 31, 2023. These samples were analyzed for tetrachloroethene (PCE). Groundwater sampling was conducted using the U.S. Environmental Protection Agency Region 4 low-flow purge method. Specific conductance, oxidation-reduction potential, dissolved oxygen, temperature, and pH measurements were allowed to stabilize for three consecutive readings and turbidity below 10 nephelometric turbidity units was achieved while a steady water level was maintained before collecting the sample. The results of the May 2023 groundwater sampling are summarized in Table 2. Final water quality parameters for each well sampled are provided in Table 3.

The extent of PCE concentrations that were greater than the Groundwater Protection Standard at the DEAP site is presented on Figure 3. Consistent with the conceptual site model and historical and current results, two primary PCE plumes are present at the DEAP site. Time series trend charts of PCE concentrations for MW-02S, MW-03S, MW-08S, MW-12S, MW-13S, and MW-14S are provided on Figures 4 through 9. The analytical laboratory report and data quality evaluation are included in Attachment 1. Field records are provided in Attachment 2.

PCE concentrations in groundwater at the site in May 2023 were similar to, or lower than, those that have been reported since July 2016 (Table 2). Concentrations at all six wells have declined since the previous sampling event, and PCE concentrations at MW-02S, MW-03S, and MW-08S have been declining for the last three events. PCE concentrations at locations MW-03S, MW-08S, and MW-14S were below the PCE Groundwater Protection Standard of 5 micrograms per liter (µg/L) for the first time, resulting in a decreased plume extent compared to previous sampling events.

Concentrations in MW-13S, the most downgradient well installed at the site and adjacent to Cypress Creek, have been decreasing since the 2021 sampling event (Table 2; Figure 8). Based on the site-specific dilution attenuation factor of 73 (CH2M, 2023b), PCE concentrations in MW-13S would need to be greater than 2,600 µg/L before the surface water quality criteria for fish and wildlife (36 µg/L) in Cypress Creek would be exceeded due to groundwater to surface water discharges from the plumes. As of May 2023, concentrations at MW-13S are an order of magnitude below the 2,600 µg/L threshold.

Overall, the results of the May 2023 groundwater sampling indicate the PCE groundwater plume is shrinking, and concentrations at the downgradient edge of the plume are currently an order of magnitude below levels that would indicate the plume discharge could potentially result in an exceedance of surface water quality criteria in Cypress Creek. Based on these data, the annual remedial action progress activities outlined in the ICP Addendum remain valid and appropriate for use in evaluating conditions at this site.

Site Inspections

In August 2023, a drive-by visual inspection was conducted to identify any major construction efforts or changes to the property use in the DEAP boundary. The inspection also included checking properties with ECs to evaluate whether the properties remained in compliance with the EC requirements. The properties with EC requirements are as follows:

- North Lawrence Street: Required to be used as a parking lot.
- Washington Avenue Right-of-Way: Required to remain a sidewalk and public right-of-way.

- 317 North Decatur Street – McClendon Service Center: Use of, access of, interference with, and/or consumption of groundwater beneath the property is restricted without prior written approval from Alabama Department of Environmental Management (ADEM).

Photographs of property and structures were taken during the drive-by visual inspection and are included in Attachment 3. Construction efforts noted during the inspection included demolition of a residential property at 405 North Decatur Street, initiation of construction of a hotel at a property west of MW-08S, and completion of a parking lot southwest of MW-08S. No new residential properties, subsurface structures, or private groundwater wells were identified during the inspection, and the EC properties remain in compliance with the EC requirements.

In addition to the visual inspection of EC properties, a drive-by inspection of the 300 block of Madison Avenue was also conducted in August 2023 to verify that properties in that area do not have residential use on the first floor, in accordance with City Ordinance 36-2019, enacted September 3, 2019. As documented in the photographs in Attachment 3, the properties on the 300 block of Madison Avenue are commercial businesses.

The DEA also corresponded via email with Collier Neeley, the owner of the Ordeman House historical bucket well (Figure 1), on August 23, 2023 to confirm that protective measures preventing use of the bucket well (including chains, covers, screens, locks, etc.) remain in place, thereby ensuring the potential exposure pathway for groundwater remains incomplete for current and future receptors.

Based on observations during the drive-by inspections, all properties with ECs or City Ordinances are complying with the ECs and City Ordinances in place for those properties.

Community Involvement and Outreach

The DEA facilitates a Community Outreach Group (COG) of interested citizens who live, work, or own property in downtown Montgomery. The COG provides a link between the DEA and the community and helps to keep the downtown community informed about project activities. No in-person COG meetings were held in 2023; however, the COG was notified when the website was updated and when ADEM placed the Institutional Controls Plan on Public Notice. Future notices and/or meetings will be conducted as needed.

The DEA also maintains a project website. The website for the DEAP is a source of project-related information available to the public, including but not limited to DEAP site background, remedial actions, environmental covenant information, links to project reports, and project contact information. The website can be accessed at: https://www.montgomeryal.gov/government/government-transparency/capital-city-plume-information. The website is updated periodically as new information of potential interest to the community becomes available.

On November 27, 2023, the DEAP was notified that EJI Restaurants had plans to construct a terrace and awning on an existing building at 500 Perry Street. The DEA confirmed that the proposed construction was not within the area prohibiting first floor residential use, and the DEA also provided a site map outlining the area within which new first floor construction is required to comply with International Building Code requirements related to vapor barriers, in accordance with City Ordinance 36-2019.

No other requests for information were received in 2023. The website will continue to be updated as new information becomes available.

Environmental Covenant Management

Each year, the DEA sends out letters to the downtown property owners to notify them of the ICs placed on downtown properties and to promote the use of ECs. The 2023 annual IC notification letters (approximately 50 letters) were mailed to owners of properties within the DEA site boundary the week of November 13, 2023. The property owners were identified using the updated property database provided by Montgomery County on October 12, 2023. In addition to sending out letters to property owners in the

DEA site area, the DEA provides information regarding ECs and a form by which property owners can apply to establish ECs on the DEAP project website.

Joe McClendon, owner of McClendon Service Center, contacted the DEA via email on November 29, 2023, to confirm his understanding of the EC on his property after receiving the IC notification letter. The DEA clarified the stipulations for his property (317 North Decatur Street) via email on November 29, 2023. No other questions or feedback on the 2023 annual IC notification letters was received, and no new ECs were filed in 2023.

Conclusions and Recommendations

The results of the May 2023 annual groundwater sampling at the DEA site indicate that the groundwater PCE plume is shrinking, and concentrations at the downgradient edge of the plume are currently an order of magnitude below levels that would indicate the plume discharge could potentially result in an exceedance of surface water quality criteria in Cypress Creek. Therefore, no changes to the conceptual site model developed for the DEAP are required, and the selected remedy documented in the ICP remains valid and appropriate for use in evaluating conditions at this site.

The drive-by visual inspection of properties within the DEAP boundary, including properties with ECs and City Ordinances, in August 2023 did not identify any major construction efforts or changes to the property use in the downtown area. No new private groundwater wells were identified, and the properties with ECs or City Ordinances remain in compliance with the associated requirements. In addition, the historical bucket well that is connected to groundwater remains behind a locked gate and has a screwed-down cover preventing access to groundwater in the well. No new ECs were filed in 2023.

Based on the results of the 2023 remedial action activities, the DEA recommends continuing the annual activities identified in the ICP Addendum for 2024.

References

CH2M HILL Engineers, Inc. (CH2M). 2019. *Institutional Controls Plan, Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. July.

CH2M HILL Engineers, Inc. (CH2M). 2023a. *Institutional Controls Plan Addendum, Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. January.

CH2M HILL Engineers, Inc. (CH2M). 2023b. *2022 Remedial Action Progress Report, Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. May.

Tables

Table 1. Groundwater Elevations - May 30, 2023

2023 Remedial Action Activities TM, DEAP, Montgomery, Alabama

Well	TOC Elevation	DTW	Groundwater Elevation
Shallow Interval Wells			
MW-01S	189.37	35.62	153.75
MW-02S	188.59	37.18	151.41
MW-03S	206.18	53.23	152.95
MW-08S	173.46	34.61	138.85
MW-09S	213.41	51.86	161.55
MW-10S	212.67	53.88	158.79
MW-12S	157.58	24.46	133.12
MW-13S	158.90	29.03	129.87
MW-14S	158.38	28.62	129.76
Intermediate Interval Wells			
MW-01I	190.00	36.88	153.12
MW-05I	210.98	54.91	156.07
MW-07I	179.76	NM	NM
MW-07S	179.65	NM	NM
MW-08I	173.42	34.52	138.90
MW-12I	157.82	24.98	132.84

Notes:

Elevation reported in feet above mean sea level.

DEAP = Downtown Environmental Assessment Project

DTW = depth to water in feet below TOC

TOC = top of casing in feet above mean sea level

NM = Not Measured; MW-7S and MW-71 were located under a disabled vehicle.

Table 2. Groundwater Sampling Results

2023 Remedial Action Activities TM, DEAP, Montgomery, Alabama

Station ID	Date Sampled	May 2023 PCE Concentrations	May 2022 PCE Concentrations	June 2021 PCE Concentrations	April 2020 PCE Concentration	July 2016 PCE Concentration
Shallow Interval Wells						
MW-02S	5/31/2023	**21.6**	**31.2**	**41.4**	**45.6 J**	**34.1**
MW-03S	5/31/2023	3.16	**15.5**	**21.6**	**33.1 J**	**6.27**
MW-08S	5/30/2023	1.93	**30.5**	**45.2**	**80.7 J**	**78.4**
MW-12S	5/30/2023	**30.9**	**36.4**	**20.3**	**30.7 J**	**58.9**
MW-13S	5/31/2023	**217 J**	**264**	**292**	**209**	**174**
MW-14S	5/31/2023	3.72	**5.68**	**5.05**	**5.78 J**	N/A

Notes:

Concentrations presented in micrograms per liter (µg/L).

The highest of the native and field duplicate concentration is presented for MW-13S.

Bold text indicates concentration exceeds the GWPS (5 µg/L).

DEAP = Downtown Environmental Assessment Project

GWPS = Groundwater Protection Standard. GWPS for the site is equal to the U.S. Environmental Protection Agency Maximum Contaminant Level

J = Estimated. The analyte was positively identified above the MDL and below the reporting limit (RL) or qualified due to a QA/QC exceedance

PCE = tetrachloroethene

U = analyte was not detected

Table 3. Field Parameter Data

2023 Remedial Action Activities TM, DEAP, Montgomery, Alabama

Station	Date Collected	pH (standard unit)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
MW-02S	5/31/2023	5.15	215.9	23.0	5.95	97.5	7.94
MW-03S	5/31/2023	5.72	211.3	21.7	8.16	80.3	3.10
MW-08S	5/30/2023	5.48	211.3	24.0	8.54	162.4	2.41
MW-12S	5/30/2023	5.42	169.9	21.5	5.11	169.2	0.34
MW-13S	5/31/2023	5.40	183.3	21.8	5.58	87.1	8.27
MW-14S	5/31/2023	5.29	186.9	22.1	4.94	112.9	6.50

Notes:

µS/cm = microsiemen(s) per centimeter

°C = degree(s) Celsius

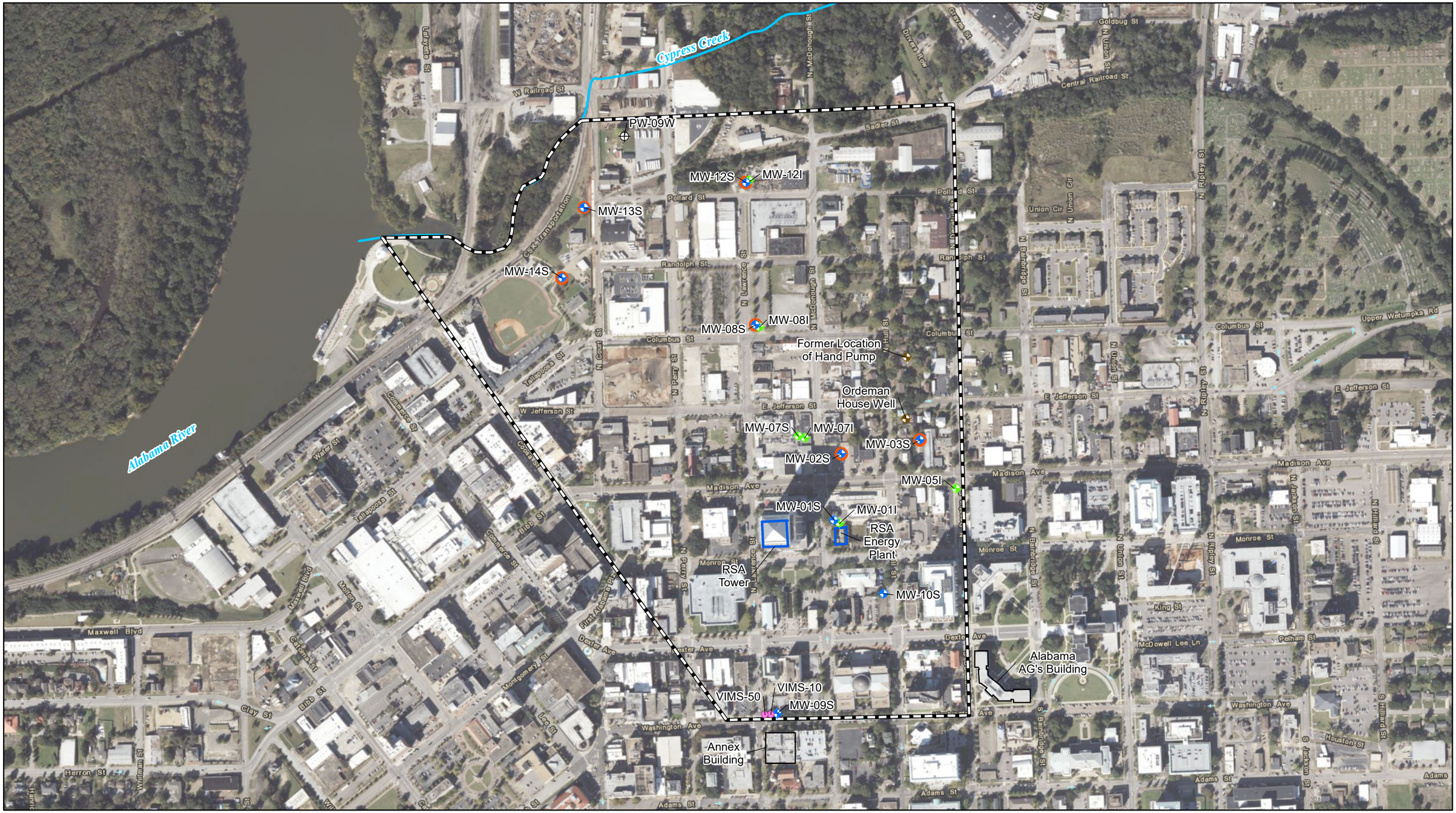
DEAP = Downtown Environmental Assessment Project

mg/L = milligram(s) per liter

mV = millivolt(s)

NTU = nephelometric turbidity unit(s)

Figures



LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Monitoring Well Sampled Annually
- Historical Well
- Former City Water Supply Well
- VIMS
- RSA Building
- Site Boundary

Notes:
1. AG - Attorney General
2. RSA - Retirement Systems of Alabama
3. VIMS - Vapor Intrusion Monitoring System

N

0 250 500
Feet

FIGURE 1
Site Map
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project
Montgomery, AL

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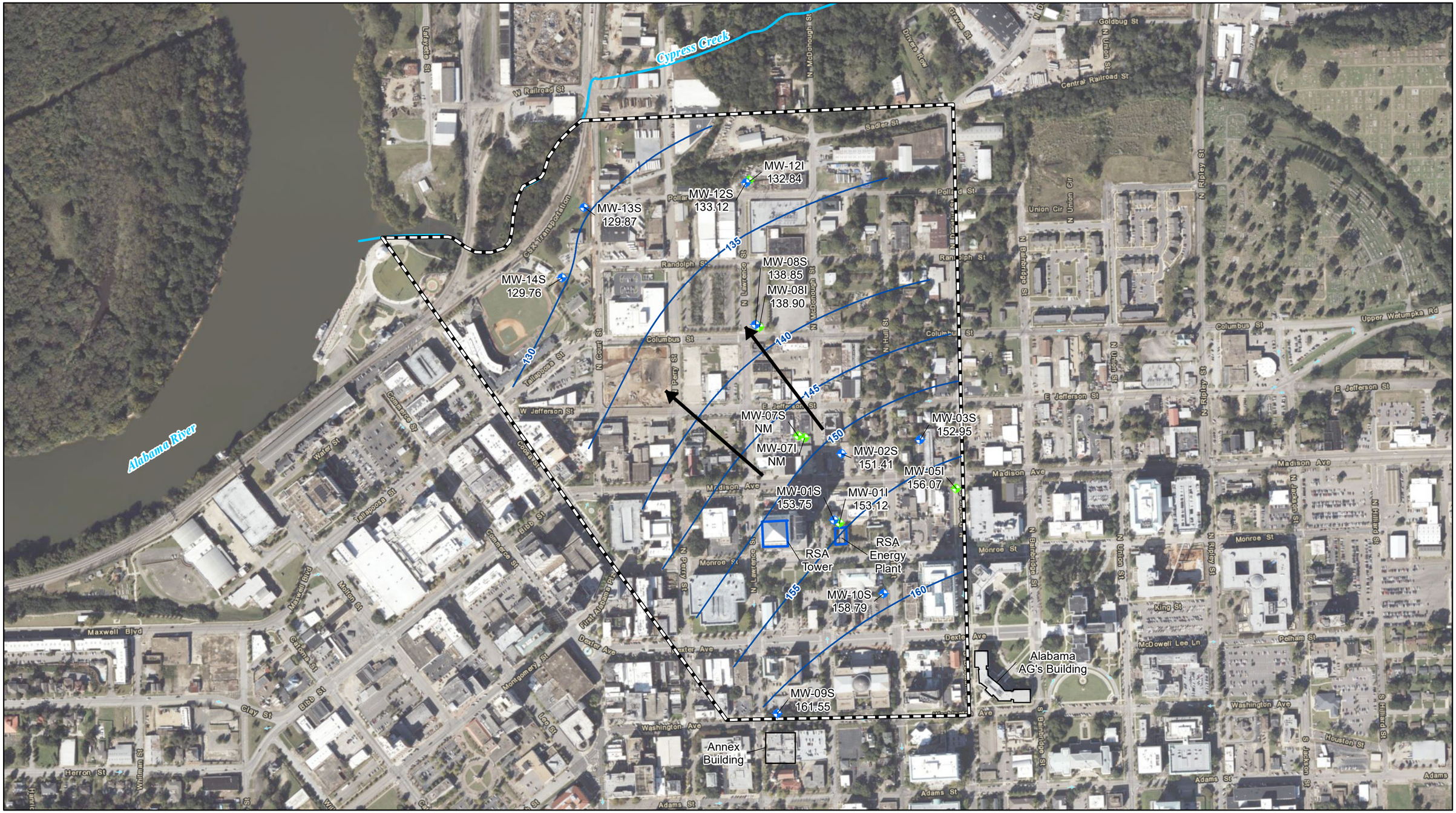

LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Shallow Potentiometric Contour
- Generalized Groundwater Flow Direction
- RSA Building
- Site Boundary

Notes:
1. AG - Attorney General
2. RSA - Retirement Systems of Alabama
3. Intermediate wells not used in contouring. MW-7S is considered an intermediate monitoring well due to depth of screen similar to other intermediate monitoring wells.
4. Groundwater elevations presented in feet above mean sea level.
5. Reach of Cypress Creek is presented as Reach 4, as defined in Baseline Biological Monitoring Results for the Cypress Creek Aquatic Ecosystem Restoration Feasibility Study (CH2M, 2012).

N

0 250 500
Feet

FIGURE 2
May 2023 Shallow Potentiometric Surface
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project
Montgomery, AL

Jacobs

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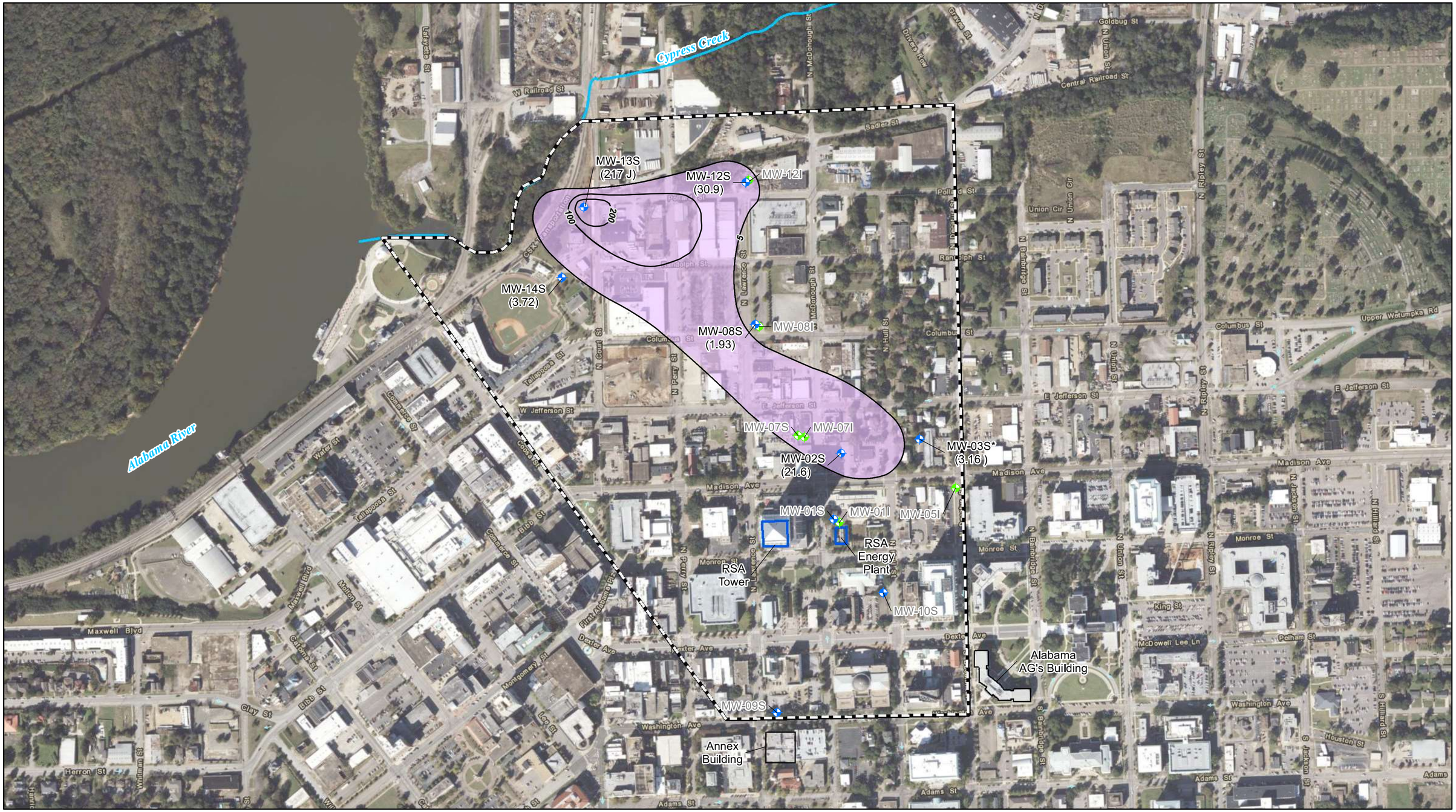

LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Isoconcentration Contour for PCE in µg/L
- Approximate Extent of PCE > 5 µg/L
- RSA Building
- Site Boundary

Notes:
1. AG = Attorney General
2. BMDL = below method detection limit
3. J = concentration is estimated
4. PCE = tetrachloroethene
5. RSA = Retirement Systems of Alabama
6. µg/L = micrograms per liter
7. * = field duplicate sample location, highest result presented
8. (34.1) = PCE concentration in groundwater in µg/L
9. Well IDs in gray were not sampled.

N

0 250 500
Feet

FIGURE 3
PCE Groundwater Results - May 2023
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project
Montgomery, AL

Jacobs

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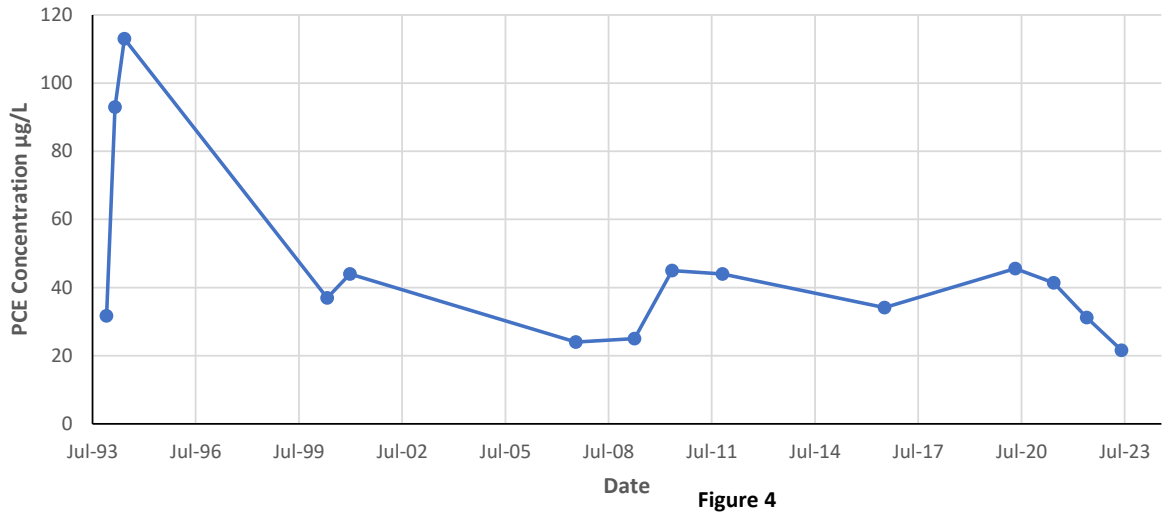


Figure 4
PCE Concentrations in MW-02S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

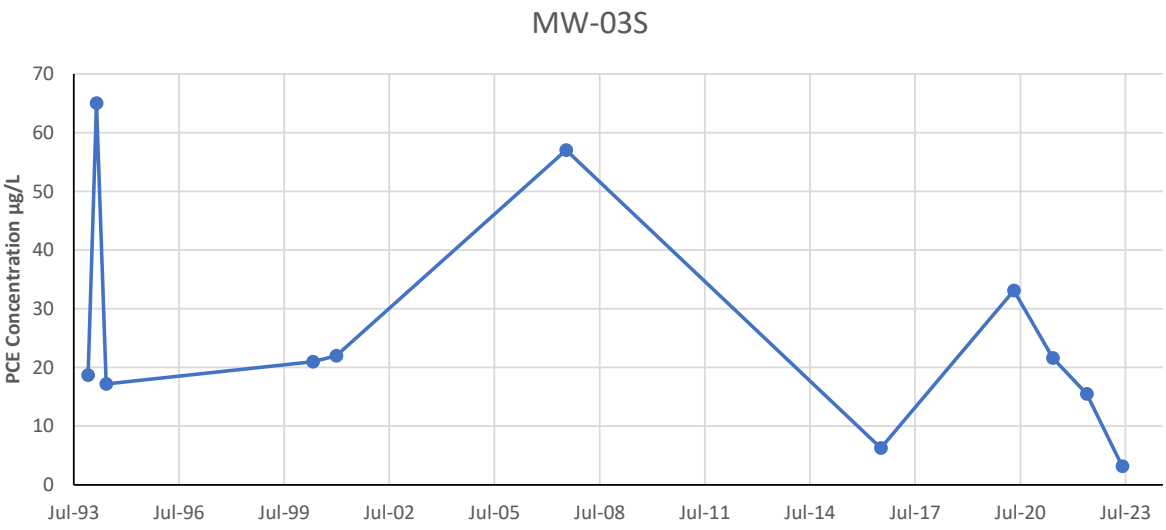


Figure 5
PCE Concentrations in MW-03S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

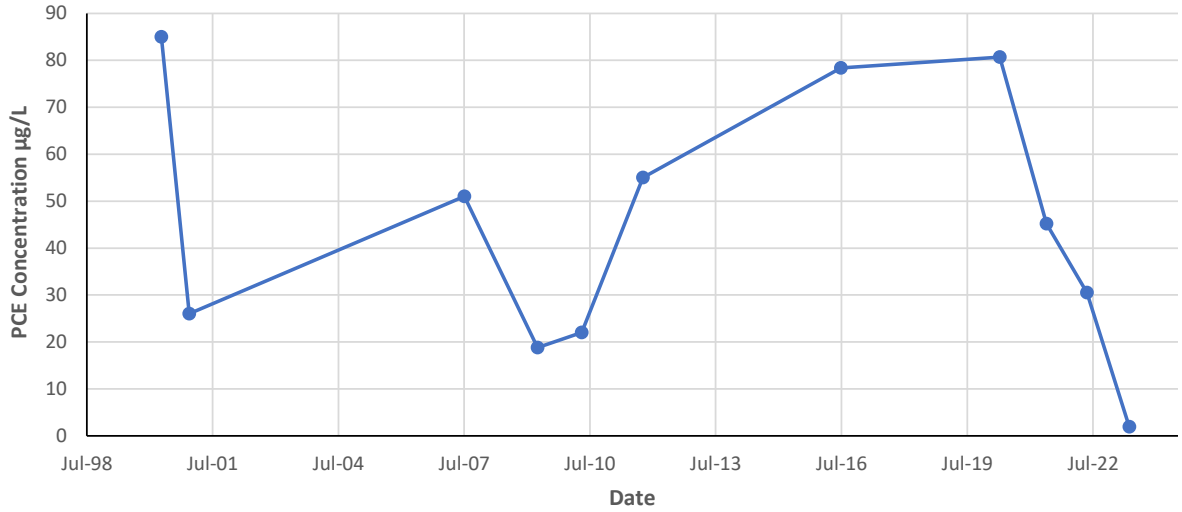


Figure 6
PCE Concentrations in MW-08S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

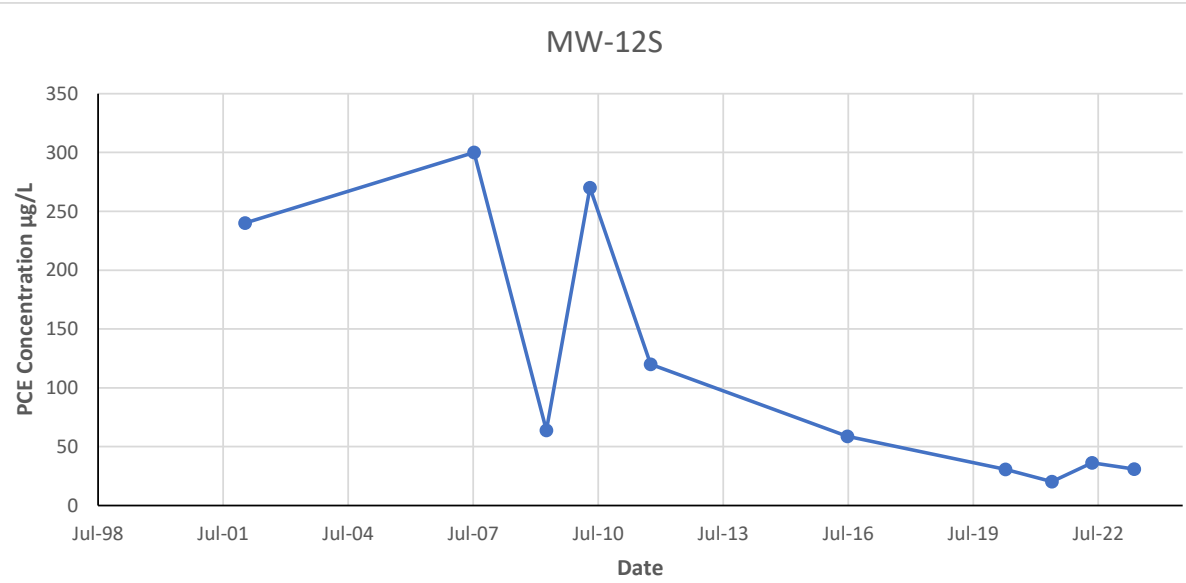


Figure 7
PCE Concentrations in MW-12S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

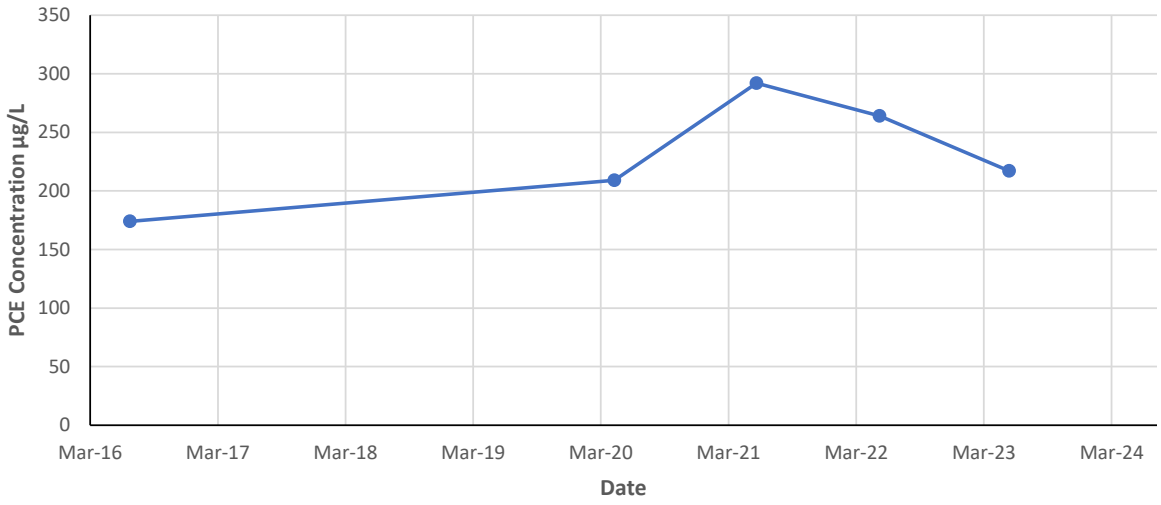


Figure 8
PCE Concentrations in MW-13S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

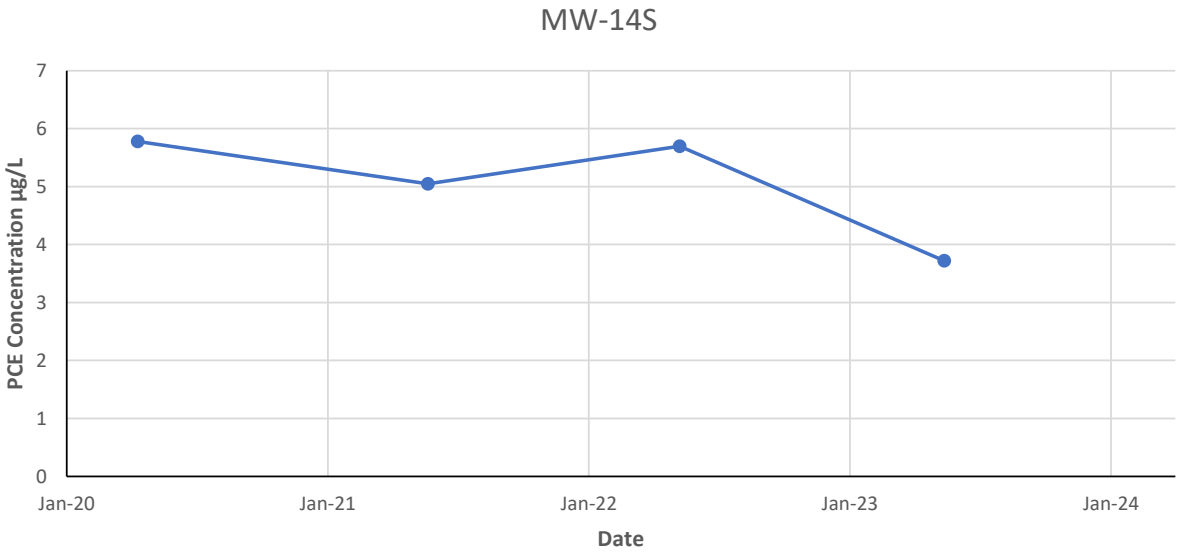


Figure 9
PCE Concentrations in MW-14S
2023 Remedial Action Activities TM
Downtown Environmental Assessment Project

Attachment 1
Data Quality Evaluation and Laboratory Reports

ATTACHMENT 1

Data Quality Evaluation

Quality Assurance/Quality Control and Data Validation

The purpose of the data quality evaluation (DQE) process is to assess the effect of the overall analytical process on the usability of the data. The two major categories of data evaluation are laboratory performance and matrix interferences. The evaluation of laboratory performance is a check for compliance with the method requirements; either the laboratory did, or did not, analyze the samples within the limits of the analytical method. The evaluation of matrix interferences is more subtle and involves the analysis of several areas of results including surrogate spike recoveries, matrix spike recoveries, and duplicate sample results.

Introduction

Groundwater samples were collected for the Downtown Environmental Assessment Project in Montgomery, Alabama on May 30 and May 31, 2023, and submitted to Pace Analytical in Mount Juliet, Tennessee for volatile organic compounds (VOC) analysis by SW-846 Method 8260B. One VOC, tetrachloroethene (PCE) was requested and reported for these samples.

The numbers and types of samples collected are listed in Table B-1. Field quality control (QC) samples collected included a field duplicate (FD), a matrix spike/matrix spike duplicate (MS/MSD), an ambient/ field blank (AB), two equipment rinsate blanks (EB), and two trip blanks (TB).

Table B-1. Analyses Totals by Method
DEAP Montgomery, Alabama

Analytical Method	Matrix	N	MS/ MSD	FD	EB	AB	TB	Total
VOC/SW8260B	Groundwater	6	1	1	1	1	1	12

Notes:
VOC = volatile organic compound
SW = SW-846 Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, February 2007
N = native sample
MS/MSD = matrix spike/matrix spike duplicate
FD = field duplicate
EB = equipment blank
AB = ambient/field blank
TB = trip blank (VOC only)

Before the analytical results were released by the laboratory, both the sample and QC data were carefully reviewed to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and the resulting data were reviewed to ascertain whether they were within the laboratory-defined limits for accuracy and precision.

The hardcopy data packages were reviewed by the project chemist using the process outlined in the U.S. Environmental Protection Agency (EPA) guidance document, National Functional Guidelines for Organic Data Review (EPA, 2017). EPA Level III deliverables were provided by the laboratory for this project. The areas of review included (when applicable to the method) holding time compliance, blank results, precision and accuracy, surrogate recoveries, initial and continuing calibrations, internal standards. Data

review was completed for each of the laboratory reports and any non-conformance was documented. This data review and validation process is independent of the laboratory's checks and focuses on the usability of the data to support the project data interpretation and decision-making processes.

Data that were not within the acceptance limits were appended with a qualifying flag, which consists of a single or double-letter abbreviation that reflects a problem with the data. The following validation flags were applied as necessary:

- **U –** Undetected. The analyte/compound was analyzed for, but not detected above the method detection limit (MDL).
- **UJ –** Undetected, detection limit estimated. The analyte/compound was analyzed for and qualified as not detected. The detection limit is estimated due to a quality assurance (QA)/QC exceedance.
- **J –** Estimated. The analyte was positively identified above the MDL and below the reporting limit (RL) or qualified due to a QA/QC exceedance; the associated numerical value is considered an estimated concentration of the analyte in the sample.
- **R –** Rejected. The data are unusable, the analyte/compound may or may not be present.
- **B** – Estimated. The result was qualified to indicate possible contamination due to the presence of the analyte/compound in an associated laboratory and/or AB or EB.

Once the data review and validation process was completed, the entire data set was reviewed for chemical compound frequencies of detection, dilution factors that might affect data usability, and patterns of target compound distribution. The data set also was evaluated to identify potential data limitations, uncertainties, or both, in the analytical results.

Holding Times

Samples MW-13S and MW-FD01 were originally reported over the instrument calibration range, but were comparable with historical concentrations. The laboratory reanalyzed both samples 2 days outside of the 14-day holding time requirement with similar results; therefore, the original results are considered valid as estimated concentrations due to the calibration exceedance.

Potential Field Sampling and Laboratory Contamination

During the May 2023 sampling event, four types of blank samples were used to monitor potential contamination introduced during field sampling, sample handling, and shipping activities, as well as sample preparation and analysis in the laboratory.

- **Trip Blank (TB):** A sample of ASTM Type II water that is prepared in the laboratory before the sampling event. The water is stored in VOC sample containers and is not opened in the field, and travels back to the laboratory with the other samples for VOC analysis. This blank is used to monitor the potential for sample contamination during the sample container trip. One trip blank should be included in each sample cooler that contains samples for VOC analysis. For this field event, one trip blank sample set was submitted to Pace Analytical for PCE analysis by SW-846 Method 8260B.
- **Equipment Rinsate Blank (EB)**: A sample of the target-free water used for the final rinse during the equipment decontamination process. This blank sample is collected by rinsing the sampling equipment after decontamination and is analyzed for the same analytical parameters as the corresponding samples. This blank is used to monitor potential contamination caused by incomplete equipment decontamination. One equipment rinsate blank should be collected per sampling event, per type of sampling equipment. One equipment rinsate blank was submitted to Pace Analytical for PCE analysis by SW-846 Method 8260B.

- **Ambient/Field Blank (AB)**: The AB is an aliquot of the source water used for equipment decontamination. This blank monitors contamination that may be introduced from the water used for decontamination. One FB/AB should be collected from each source of decontamination water and be analyzed for the same parameters as the associated samples. One AB was submitted to Pace Analytical for PCE analysis by SW-846 Method 8260B.
- **Laboratory Method Blank or Method Blank (MB):** A MB is ASTM Type II water that is treated as a sample in that it undergoes the same analytical process as the corresponding field samples. The MBs are used to monitor laboratory performance and contamination introduced during the analytical procedure. One MB was prepared and analyzed for every twenty samples, or per analytical batch, whichever was more frequent.

Field, equipment, trip, and laboratory blanks for the May 2023 groundwater sampling event were reported as not detected for PCE.

General Data Qualifiers

As required by the EPA protocols, all compounds qualitatively identified at concentrations below their respective RLs but above the MDLs are appended with “J” qualifiers on the data summary tables to indicate that they are quantitative estimates. For this sample set, all monitoring well results were above the RL.

Instrument Calibration

All initial and continuing calibration results were reported within the method criteria for all target compounds.

Matrix Effects

Surrogate Spike Recovery and Internal Standard Response

Surrogate spike compounds were added to every sample, including field and laboratory blanks as well as field environmental samples and analyzed for VOCs. Surrogate spikes consist of organic compounds that are similar to the method targets in chemical composition and behavior in the analytical process, but that are not normally found in environmental samples.

Surrogate spike recoveries were used to monitor both laboratory performance and matrix interferences. Surrogate spike recoveries from field and laboratory blanks were used to evaluate laboratory performance because the blanks should represent an "ideal" sample matrix. Surrogate spike recoveries for the field samples were used to evaluate the potential for matrix interferences. According to the Functional Guidelines, data are qualified as estimated values when one or more VOC surrogate recoveries are outside of method acceptance limits.

Internal standard calibration involves the comparison of the instrument responses from the target compounds in the sample to the responses of specific standards added to the sample or sample extract prior to injection.

All surrogate recoveries and internal standards associated with the target compound for this project were within acceptance criteria.

Matrix Spike/Matrix Spike Duplicate Precision and Accuracy

The MS and MSD samples are aliquots of a native sample spiked with a known concentration of target compound(s) before sample preparation and analysis. MS/MSDs are used to document the bias and precision of a method in a given sample matrix. For the MS/MSD measurement, three aliquots of a single sample are analyzed; one native sample and two samples spiked with target compound(s). Matrix accuracy is evaluated from the spike recoveries, while precision is evaluated from a comparison of the concentrations of the MS and MSD.

MS/MSD evaluation is in conjunction with surrogate, internal standard, and laboratory control sample/laboratory control sample duplicate (LCS/LCSD) results.

Groundwater monitoring well MW-03S was submitted to the laboratory for MS/MSD analysis during the May 2023 sampling event. MS/MSD and LCS recoveries were within criteria, therefore no data qualification was required.

One FD sample was collected and analyzed for PCE to evaluate the precision of field sampling and the variability of the sample data. Groundwater monitoring well MW-13S was selected for FD analysis during the May 2023 sampling event. The native sample and FD sample results were compared and relative percent difference (RPD) precision criteria were met.

Precision, Accuracy, Representativeness, Completeness, and Comparability (PARCCs)

Precision–is defined as the agreement between duplicate results, and was estimated by comparing MS/MSD and native/FD sample results. MS/MSD, LCS/LCSD, and FD precision was reviewed and precision was met for all samples.

Accuracy– is a measure of the agreement between an experimental determination and the true value of the parameter measured. Accuracy of the data was verified through the review of surrogate, LCS/LCSD and MS/MSD results. Surrogate and MS/MSD recoveries provide a measure of the matrix effects on the analytical accuracy. The LCS/LCSD results demonstrate accuracy and precision of the method and the laboratory's ability to meet the method criteria. Surrogate, LCS/LCSD, and MS/MSD accuracy criteria were met for all samples.

Representativeness–This criterion is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition. Representativeness is a subjective parameter and is used to evaluate the effectiveness of the sampling plan design. Representativeness was demonstrated by providing full descriptions in the project scoping documents of the sampling techniques and the rationale used for selecting sampling locations.

Completeness–is defined as the percentage of measurements that are judged to be valid compared to the total number of measurements made. All analyses were performed within holding time requirements and within the QA/QC criteria, resulting in 100% usable data for this sampling event.

Comparability–is another qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are sample collection and handling techniques, sample matrix type, and analytical method. Comparability is limited by the other precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters because data sets can be compared with confidence only when precision and accuracy are known. Data from this investigation are comparable with other data collected at the site because only EPA methods were used to analyze the samples and EPA Level III QC data are available to support the quality of the data.

Summary and Conclusions

The conclusions of the DQE process include the following:

- The laboratory analyzed the samples for PCE according to the EPA methods as requested by the project and demonstrated by the data deliverables provided.
- AB, EB, TB, and laboratory blanks collected and analyzed for the May 2023 sampling event were reported as not detected for PCE.
- Groundwater monitoring well MW-03S was submitted to the laboratory for MS/MSD analysis with all accuracy and precision criteria met.
- Groundwater monitoring well MW-13S was selected for FD analysis with precision criteria met for PCE.
- The overall project objectives or PARCCs were met, and the data can be used in the project decision-making process as qualified during the DQE process.

Laboratory Report

ANALYTICAL REPORT

June 26, 2023

Revised Report

Jacobs - Montgomery, AL

Sample Delivery Group:	L1621880
Samples Received:	06/01/2023
Project Number:	
Description:	Montgomery DEAP

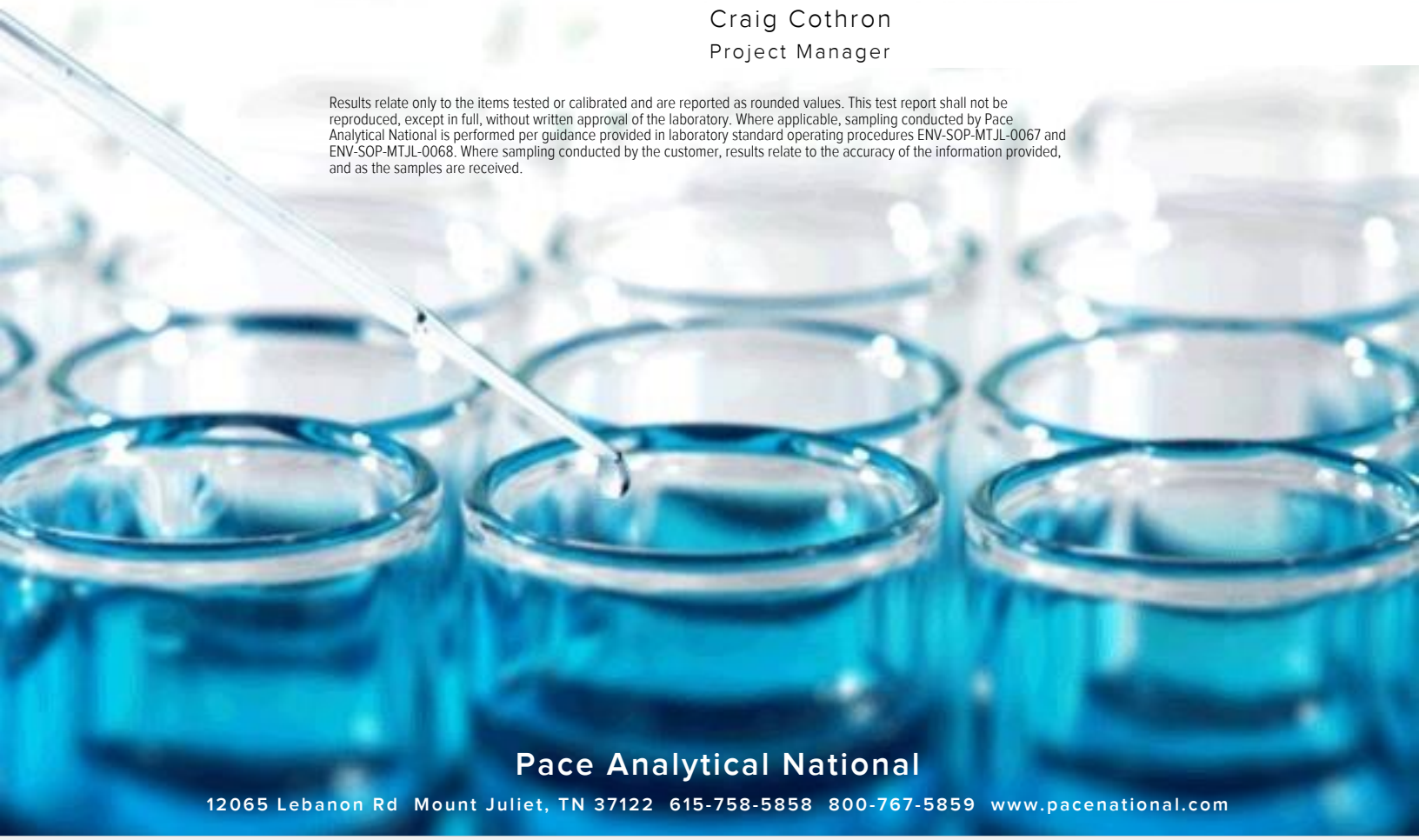
Report To:

Ms. Kaye Walker
4121 Carmichael Rd, Suite 400
Montgomery, AL 36106

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-2S-0523 L1621880-01 GW

Collected by	Collected date/time	Received date/time
	05/31/23 12:05	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 02:43	06/07/23 02:43	JBE	Mt. Juliet, TN

MW-3S-0523 L1621880-02 GW

Collected by	Collected date/time	Received date/time
	05/31/23 13:40	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 03:04	06/07/23 03:04	JBE	Mt. Juliet, TN

MW-8S-0523 L1621880-03 GW

Collected by	Collected date/time	Received date/time
	05/30/23 17:40	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 03:26	06/07/23 03:26	JBE	Mt. Juliet, TN

MW-12S-0523 L1621880-04 GW

Collected by	Collected date/time	Received date/time
	05/30/23 15:20	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 03:47	06/07/23 03:47	JBE	Mt. Juliet, TN

MW-13S-0523 L1621880-05 GW

Collected by	Collected date/time	Received date/time
	05/31/23 15:25	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 04:09	06/07/23 04:09	JBE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2079322	5	06/16/23 19:17	06/16/23 19:17	ADM	Mt. Juliet, TN

MW-14S-0523 L1621880-06 GW

Collected by	Collected date/time	Received date/time
	05/31/23 09:50	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 04:30	06/07/23 04:30	JBE	Mt. Juliet, TN

MW-FD01-0523 L1621880-07 GW

Collected by	Collected date/time	Received date/time
	05/31/23 15:30	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 04:52	06/07/23 04:52	JBE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2079322	5	06/16/23 19:36	06/16/23 19:36	ADM	Mt. Juliet, TN

AB-01-0523 L1621880-08 GW

Collected by	Collected date/time	Received date/time
	05/31/23 15:40	06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 05:14	06/07/23 05:14	JBE	Mt. Juliet, TN

SAMPLE SUMMARY

EB-01-0523 L1621880-09 GW

			Collected by	Collected date/time	Received date/time	
				05/31/23 15:55	06/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/07/23 05:35	06/07/23 05:35	JBE	Mt. Juliet, TN

TB-01-0523 L1621880-10 GW

			Collected by	Collected date/time	Received date/time	
				05/31/23 16:00	06/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2072759	1	06/06/23 23:07	06/06/23 23:07	JBE	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Report Revision History

Level II Report - Version 1: 06/07/23 12:14
Level III Report - Version 2: 06/07/23 12:24
Level II Report - Version 3: 06/26/23 12:07

Project Narrative

6/24/23 - added rerun for L1621880-05 and 07

8260B Volatile Organic Compounds (GC/MS)

Analytical Method: 8260B **SDG:** L1621880
Matrix: GW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	DMC-2 % Rec.	DMC-3 % Rec.	TOT Out
MW-2S-0523	L1621880-01	VOCMS6	0606A_20	91.6	87.5	126	0
MW-3S-0523	L1621880-02	VOCMS6	0606A_21	92.1	89.1	126	0
MW-8S-0523	L1621880-03	VOCMS6	0606A_22	90.9	85.4	126	0
MW-12S-0523	L1621880-04	VOCMS6	0606A_23	93.1	88.6	134*	1
MW-13S-0523	L1621880-05	VOCMS6	0606A_24	95.8	91.7	126	0
MW-13S-0523	L1621880-05	VOCMS32	0616_30	111	94.3	122	0
MW-14S-0523	L1621880-06	VOCMS6	0606A_25	92.4	88.6	123	0
MW-FD01-0523	L1621880-07	VOCMS6	0606A_26	93.0	89.6	128	0
MW-FD01-0523	L1621880-07	VOCMS32	0616_31	110	94.0	119	0
AB-01-0523	L1621880-08	VOCMS6	0606A_27	90.6	88.5	131*	1
EB-01-0523	L1621880-09	VOCMS6	0606A_28	90.5	89.5	126	0
TB-01-0523	L1621880-10	VOCMS6	0606A_10	92.1	88.1	123	0
MS	R3933708-3	VOCMS6	0606A_30	88.9	92.4	135*	1
MSD	R3933708-4	VOCMS6	0606A_31	87.2	91.2	127	0
BLANK	R3937966-3	VOCMS32	0616_28	109	96.8	121	0
BLANK	R3933708-2	VOCMS6	0606A_06	91.9	88.5	125	0
LCS	R3937966-1	VOCMS32	0616_25LCSA	108	94.6	120	0
LCS	R3933708-1	VOCMS6	0606A_03LCS	90.5	91.4	122	0
LCSD	R3937966-2	VOCMS32	0616_26A	110	97.6	122	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	4-Bromofluorobenzene	77.0 - 126
DMC-3	1,2-Dichloroethane-d4	70.0 - 130

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1621880-01,02,03,04,05,06,07,08,09,10

SAMPLE NO.:
R3933708-3
R3933708-4

MS Sample / File ID:	R3933708-3 / 0606A_30	**SDG:**	L1621880
MSD Sample / File ID:	R3933708-4 / 0606A_31	**Analytical Batch:**	WG2072759
OS Sample / File ID:	L1621880-03 / 0606A_22	**Matrix:**	GW
Instrument ID:	VOCMS6		
Analytical Method:	8260B		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*	*ug/l*	*ug/l*	*%*	*%*		*%*	*%*	*%*
Tetrachloroethene	5.00	1.93	6.92	6.60	99.8	93.4	1	10.0 - 160	4.73	27

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1621880-01,02,03,04,05,06,07,08,09,10

SAMPLE NO.:
R3933708-1

LCS Sample / File ID:	R3933708-1 / 0606A_03LCS	**SDG:**	L1621880
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG2072759
Instrument ID:	VOCMS6	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*		*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	5.00	4.34		86.8		72.0 - 132		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1621880-05,07

SAMPLE NO.:
R3937966-1
R3937966-2

LCS Sample / File ID:	R3937966-1 / 0616_25LCSA	**SDG:**	L1621880
LCSD Sample / File ID:	R3937966-2 / 0616_26A	**Analytical Batch:**	WG2079322
Instrument ID:	VOCMS32	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	ug/l	*ug/l*	*ug/l*	*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	5.00	4.47	4.49	89.4	89.8	72.0 - 132	0.446	20

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

Lab Sample ID:	R3937966-3	**SDG:**	L1621880
Lab File ID:	0616_28	**Preparation Date/Time:**	06/16/23 17:24
Instrument ID:	VOCMS32	**Analysis Date/Time:**	06/16/23 17:24
Analytical Batch:	WG2079322	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3937966-1	VOCMS32	0616_25LCSA	06/16/23 15:30
LCSD	R3937966-2	VOCMS32	0616_26A	06/16/23 15:49
MW-13S-0523	L1621880-05	VOCMS32	0616_30	06/16/23 19:17
MW-FD01-0523	L1621880-07	VOCMS32	0616_31	06/16/23 19:36

Lab Sample ID:	R3933708-2	**SDG:**	L1621880
Lab File ID:	0606A_06	**Preparation Date/Time:**	06/06/23 21:15
Instrument ID:	VOCMS6	**Analysis Date/Time:**	06/06/23 21:15
Analytical Batch:	WG2072759	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3933708-1	VOCMS6	0606A_03LCS	06/06/23 18:36
TB-01-0523	L1621880-10	VOCMS6	0606A_10	06/06/23 23:07
MW-2S-0523	L1621880-01	VOCMS6	0606A_20	06/07/23 02:43
MW-3S-0523	L1621880-02	VOCMS6	0606A_21	06/07/23 03:04
MW-8S-0523	L1621880-03	VOCMS6	0606A_22	06/07/23 03:26
MW-12S-0523	L1621880-04	VOCMS6	0606A_23	06/07/23 03:47
MW-13S-0523	L1621880-05	VOCMS6	0606A_24	06/07/23 04:09
MW-14S-0523	L1621880-06	VOCMS6	0606A_25	06/07/23 04:30
MW-FD01-0523	L1621880-07	VOCMS6	0606A_26	06/07/23 04:52
AB-01-0523	L1621880-08	VOCMS6	0606A_27	06/07/23 05:14
EB-01-0523	L1621880-09	VOCMS6	0606A_28	06/07/23 05:35
MS	R3933708-3	VOCMS6	0606A_30	06/07/23 06:19
MSD	R3933708-4	VOCMS6	0606A_31	06/07/23 06:40

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0521_03
Instrument ID: VOCMS6
Analysis Date/Time: 05/21/23 17:47
SDG: L1621880
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	123
96	95	5	9	6
173	174	0	2	0
174	95	50	200	81
175	174	5	9	8
176	174	95	105	98
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-1	1	0521_07	05/21/23 19:13
STD-2	2	0521_08	05/21/23 19:35
STD-5.0	5.0	0521_09	05/21/23 19:57
STD-25	25	0521_10	05/21/23 20:19
STD-75	75	0521_11	05/21/23 20:40
STD-100	100	0521_12	05/21/23 21:02
STD-200	200	0521_13	05/21/23 21:23
SSCV	VOCMS60521230521_17641158	0521_17	05/21/23 22:50
SSCV	VOCMS60521230521_18641158	0521_18	05/21/23 23:11

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0526_03	**SDG:**	L1621880
Instrument ID:	VOCMS6	**Analytical Method:**	8260B
Analysis Date/Time:	05/26/23 04:15		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	134
96	95	5	9	5
173	174	0	2	0
174	95	50	200	74
175	174	5	9	8
176	174	95	105	102
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-1A	1A	0526_05	05/26/23 04:58
STD-5A	5A	0526_06	05/26/23 05:20
STD-10A	10A	0526_07	05/26/23 05:42
STD-15A	15A	0526_08	05/26/23 06:03
STD-20A	20A	0526_09	05/26/23 06:25
STD-.5	.5	0526_18	05/26/23 09:39
STD-1	1	0526_19	05/26/23 10:01
STD-2	2	0526_20	05/26/23 10:22
STD-5.0	5.0	0526_21	05/26/23 10:44
STD-10	10	0526_22	05/26/23 11:06
STD-20	20	0526_23	05/26/23 11:27

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0527_01	**SDG:**	L1621880
Instrument ID:	VOCMS6	**Analytical Method:**	8260B
Analysis Date/Time:	05/27/23 02:54		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	134
96	95	5	9	7
173	174	0	2	0
174	95	50	200	75
175	174	5	9	7
176	174	95	105	99
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-5	5	0527_05	05/27/23 04:19
STD-10	10	0527_06	05/27/23 04:41
STD-50	50	0527_07	05/27/23 05:03
STD-100	100	0527_08	05/27/23 05:24
STD-500	500	0527_09	05/27/23 05:46
STD-1000	1000	0527_10	05/27/23 06:08

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0606A_01T	**SDG:**	L1621880
Instrument ID:	VOCMS6	**Analytical Method:**	8260B
Analysis Date/Time:	06/06/23 17:53		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	129
96	95	5	9	6
173	174	0	2	0
174	95	50	200	78
175	174	5	9	8
176	174	95	105	97
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
LCS	R3933708-1	0606A_03LCS	06/06/23 18:36
ICV	VOCMS6060623A0606A_03641158	0606A_03	06/06/23 18:36

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0606A_05T	**SDG:**	L1621880
Instrument ID:	VOCMS6	**Analytical Method:**	8260B
Analysis Date/Time:	06/06/23 19:19		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	123
96	95	5	9	7
173	174	0	2	0
174	95	50	200	81
175	174	5	9	7
176	174	95	105	102
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
BLANK	R3933708-2	0606A_06	06/06/23 21:15
TB-01-0523	L1621880-10	0606A_10	06/06/23 23:07
MW-2S-0523	L1621880-01	0606A_20	06/07/23 02:43
MW-3S-0523	L1621880-02	0606A_21	06/07/23 03:04
OS	L1621880-03	0606A_22	06/07/23 03:26
MW-8S-0523	L1621880-03	0606A_22	06/07/23 03:26
MW-12S-0523	L1621880-04	0606A_23	06/07/23 03:47
MW-13S-0523	L1621880-05	0606A_24	06/07/23 04:09
MW-14S-0523	L1621880-06	0606A_25	06/07/23 04:30
MW-FD01-0523	L1621880-07	0606A_26	06/07/23 04:52
AB-01-0523	L1621880-08	0606A_27	06/07/23 05:14
EB-01-0523	L1621880-09	0606A_28	06/07/23 05:35
MS	R3933708-3	0606A_30	06/07/23 06:19
MSD	R3933708-4	0606A_31	06/07/23 06:40

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0511_06	**SDG:**	L1621880
Instrument ID:	VOCMS32	**Analytical Method:**	8260B
Analysis Date/Time:	05/11/23 13:51		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	98
96	95	5	9	7
173	174	0	2	1
174	95	50	200	102
175	174	5	9	7
176	174	95	105	100
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.5	0.5	0511_12	05/11/23 15:46
STD-1	1	0511_13	05/11/23 16:05
STD-2	2	0511_14	05/11/23 16:24
STD-5.0	5.0	0511_15	05/11/23 16:44
STD-25	25	0511_16	05/11/23 17:03
STD-75	75	0511_17	05/11/23 17:22
STD-100	100	0511_18	05/11/23 17:41
STD-200	200	0511_19	05/11/23 18:00
STD-10A	10A	0511_22	05/11/23 18:58
STD-5A	5A	0511_22	05/11/23 18:58
STD-15A	15A	0511_22	05/11/23 18:58
STD-1A	1A	0511_22	05/11/23 18:58
STD-20A	20A	0511_22	05/11/23 18:58
SSCV	VOCMS320511230511_24638347	0511_24	05/11/23 19:36

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0616_24T	**SDG:**	L1621880
Instrument ID:	VOCMS32	**Analytical Method:**	8260B
Analysis Date/Time:	06/16/23 15:11		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	103
96	95	5	9	6
173	174	0	2	1
174	95	50	200	97
175	174	5	9	7
176	174	95	105	98
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS32061623A0616_25638347	0616_25	06/16/23 15:30
LCS	R3937966-1	0616_25LCSA	06/16/23 15:30
LCSD	R3937966-2	0616_26A	06/16/23 15:49
BLANK	R3937966-3	0616_28	06/16/23 17:24
MW-13S-0523	L1621880-05	0616_30	06/16/23 19:17
MW-FD01-0523	L1621880-07	0616_31	06/16/23 19:36

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1621880	**Analytical Method:**	8260B
Instrument ID:	VOCMS6	**Calibration Start Date:**	05/21/23 19:13
Std File:	0606A_03	**Calibration End Date:**	05/27/23 06:08
		Std Analysis Date:	06/06/23 18:36

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		132480	8.14	174499	6.45	362634	4.52
UPPER LIMIT		264960		348998		725268	
LOWER LIMIT		66240		87250		181317	
LCS R3933708-1 WG2072759 1x	0606A_03LCS	132480	8.14	174499	6.45	362634	4.52
BLANK R3933708-2 WG2072759 1x	0606A_06	115907	8.14	163790	6.45	370704	4.51
L1621880-10 WG2072759 1x	0606A_10	126227	8.14	167345	6.45	365039	4.52
L1621880-01 WG2072759 1x	0606A_20	118621	8.15	169134	6.45	362337	4.52
L1621880-02 WG2072759 1x	0606A_21	121131	8.15	165338	6.46	358876	4.53
L1621880-03 WG2072759 1x	0606A_22	107144	8.15	162929	6.46	348653	4.53
OS L1621880-03 WG2072759 1x	0606A_22	107144	8.15	162929	6.46	348653	4.53
L1621880-04 WG2072759 1x	0606A_23	119653	8.15	164080	6.46	350280	4.53
L1621880-05 WG2072759 1x	0606A_24	114781	8.15	160581	6.46	359374	4.53
L1621880-06 WG2072759 1x	0606A_25	118410	8.15	160246	6.46	347631	4.53
L1621880-07 WG2072759 1x	0606A_26	123073	8.15	160572	6.46	347979	4.53
L1621880-08 WG2072759 1x	0606A_27	110311	8.15	161623	6.46	345283	4.53
L1621880-09 WG2072759 1x	0606A_28	112471	8.15	162253	6.46	350058	4.53
MS R3933708-3 WG2072759 1x	0606A_30	128940	8.14	168676	6.45	339312	4.53
MSD R3933708-4 WG2072759 1x	0606A_31	133052	8.14	172249	6.45	351887	4.53

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1621880	**Analytical Method:**	8260B
Instrument ID:	VOCMS32	**Calibration Start Date:**	05/11/23 15:46
Std File:	0616_25	**Calibration End Date:**	05/11/23 18:58
		Std Analysis Date:	06/16/23 15:30

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		105463	7.96	114065	6.28	256544	4.36
UPPER LIMIT		210926		228130		513088	
LOWER LIMIT		52732		57033		128272	
LCS R3937966-1 WG2079322 1x	0616_25LCSA	105463	7.96	114065	6.28	256544	4.36
LCSD R3937966-2 WG2079322 1x	0616_26A	111317	7.96	115721	6.28	260119	4.36
BLANK R3937966-3 WG2079322 1x	0616_28	107871	7.96	111544	6.28	256954	4.36
L1621880-05 WG2079322 5x	0616_30	101284	7.96	111542	6.28	255204	4.36
L1621880-07 WG2079322 5x	0616_31	95557	7.96	106376	6.28	241507	4.36

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-01	**SDG:**	L1621880
Client Sample ID:	MW-2S-0523	**Collected Date/Time:**	05/31/23 12:05
Lab File ID:	0606A_20	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 02:43
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 02:43
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.72	26.1		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-02	**SDG:**	L1621880
Client Sample ID:	MW-3S-0523	**Collected Date/Time:**	05/31/23 13:40
Lab File ID:	0606A_21	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 03:04
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 03:04
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	3.16		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-03	**SDG:**	L1621880
Client Sample ID:	MW-8S-0523	**Collected Date/Time:**	05/30/23 17:40
Lab File ID:	0606A_22	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 03:26
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 03:26
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	1.93		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-04	**SDG:**	L1621880
Client Sample ID:	MW-12S-0523	**Collected Date/Time:**	05/30/23 15:20
Lab File ID:	0606A_23	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 03:47
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 03:47
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.72	30.9		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-05	**SDG:**	L1621880
Client Sample ID:	MW-13S-0523	**Collected Date/Time:**	05/31/23 15:25
Lab File ID:	0616_30	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS32	**Preparation Date/Time:**	06/16/23 19:17
Analytical Batch:	WG2079322	**Analysis Date/Time:**	06/16/23 19:17
Dilution Factor:	5	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	1 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.56	157	T8	1.50	5.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-05	**SDG:**	L1621880
Client Sample ID:	MW-13S-0523	**Collected Date/Time:**	05/31/23 15:25
Lab File ID:	0606A_24	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 04:09
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 04:09
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.72	217	E	0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-06	**SDG:**	L1621880
Client Sample ID:	MW-14S-0523	**Collected Date/Time:**	05/31/23 09:50
Lab File ID:	0606A_25	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 04:30
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 04:30
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	3.72		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-07	**SDG:**	L1621880
Client Sample ID:	MW-FD01-0523	**Collected Date/Time:**	05/31/23 15:30
Lab File ID:	0616_31	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS32	**Preparation Date/Time:**	06/16/23 19:36
Analytical Batch:	WG2079322	**Analysis Date/Time:**	06/16/23 19:36
Dilution Factor:	5	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.57	151	T8	1.50	5.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-07	**SDG:**	L1621880
Client Sample ID:	MW-FD01-0523	**Collected Date/Time:**	05/31/23 15:30
Lab File ID:	0606A_26	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 04:52
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 04:52
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.72	214	E	0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-08	**SDG:**	L1621880
Client Sample ID:	AB-01-0523	**Collected Date/Time:**	05/31/23 15:40
Lab File ID:	0606A_27	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 05:14
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 05:14
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	U		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-09	**SDG:**	L1621880
Client Sample ID:	EB-01-0523	**Collected Date/Time:**	05/31/23 15:55
Lab File ID:	0606A_28	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 05:35
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 05:35
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1621880-10	**SDG:**	L1621880
Client Sample ID:	TB-01-0523	**Collected Date/Time:**	05/31/23 16:00
Lab File ID:	0606A_10	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/06/23 23:07
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/06/23 23:07
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1621880 **Analytical Method:** 8260B

Instrument ID: VOCMS6

Analyte	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	05/21/23 19:13	05/21/23 19:35	05/21/23 19:57	05/21/23 20:19	05/21/23 20:40	05/21/23 21:02	05/21/23 21:23			
TETRACHLOROETHENE	0.4110	0.4790	0.4730	0.5220	0.52	0.5060	0.4910	0.486002	7.82	
1,2-DICHLOROETHANE-D4	0.2790	0.2640	0.2670	0.2670	0.24	0.2360	0.2310	0.254777	7.35	
TOLUENE-D8	2.3970	2.4130	2.3090	2.33	2.5690	2.59	2.6320	2.462731	5.35	
4-BROMOFLUOROBENZENE	0.88	0.8720	0.8530	0.87	0.9770	1.0040	1.04	0.928267	8.26	
File ID:	0521_07	0521_08	0521_09	0521_10	0521_11	0521_12	0521_13			

GC/MS INITIAL CALIBRATION DATA

SDG: L1621880 **Analytical Method:** 8260B

Instrument ID: VOCMS32

Analyte	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**
Analysis date/time	05/11/23 15:46	05/11/23 16:05	05/11/23 16:24	05/11/23 16:44	05/11/23 17:03	05/11/23 17:22	05/11/23 17:41	05/11/23 18:00
TETRACHLOROETHENE	0.7410	0.7470	0.7080	0.73	0.7970	0.7360	0.7430	0.6720
1,2-DICHLOROETHANE-D4	0.3190	0.3140	0.3070	0.2980	0.2940	0.2960	0.2880	0.28
TOLUENE-D8	2.3630	2.2330	2.1960	2.1360	2.0420	1.9140	1.8470	1.6570
4-BROMOFLUOROBENZENE	0.9290	0.90	0.8760	0.8740	0.8870	0.8420	0.8090	0.7440
File ID:	0511_12	0511_13	0511_14	0511_15	0511_16	0511_17	0511_18	0511_19

GC/MS INITIAL CALIBRATION DATA

SDG: L1621880 **Analytical Method:** 8260B

Instrument ID: VOCMS32

Analyte Analysis date/time	RRF. Avg	%RSD	COD
TETRACHLOROETHENE	0.734284	4.82	
1,2-DICHLOROETHANE-D4	0.29931	4.36	
TOLUENE-D8	2.048553	11.29	
4-BROMOFLUOROBENZENE	0.857449	6.83	

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1621880	**Calibration (begin) date/time:**	05/21/23 19:13
Instrument ID:	VOCMS6	**Calibration (end) date/time:**	05/27/23 06:08
Lab File ID:	0521_17	**Analysis date/time:**	05/21/23 22:50
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.486002	0.48097890		1.03	40	0.0050	0.004948	99	
1,2-DICHLOROETHANE-D4	0.254777	0.26911550		5.63	40	0.0160	0.01690	106	70 - 130
4-BROMOFLUOROBENZENE	0.928267	0.88894090		4.24	40	0.0160	0.01532	95.80	67 - 138
TOLUENE-D8	2.462731	2.389659		2.97	40	0.0160	0.01553	97.10	75 - 131

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1621880	**Calibration (begin) date/time:**	05/21/23 19:13
Instrument ID:	VOCMS6	**Calibration (end) date/time:**	05/27/23 06:08
Lab File ID:	0606A_03	**Analysis date/time:**	06/06/23 18:36
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.486002	0.42177890		13.20		0.0050	0.004339	86.80	
1,2-DICHLOROETHANE-D4	0.254777	0.31100780		22.10		0.0160	0.01953	122	70 - 130
4-BROMOFLUOROBENZENE	0.928267	0.84876130		8.56		0.0160	0.01463	91.40	70 - 130
TOLUENE-D8	2.462731	2.228414		9.51		0.0160	0.01448	90.50	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1621880	**Calibration (begin) date/time:**	05/11/23 15:46
Instrument ID:	VOCMS32	**Calibration (end) date/time:**	05/11/23 18:58
Lab File ID:	0511_24	**Analysis date/time:**	05/11/23 19:36
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.734284	0.67151190		8.55	40	0.0050	0.004573	91.50	
1,2-DICHLOROETHANE-D4	0.299310	0.31788110		6.20	40	0.0160	0.01699	106	70 - 130
4-BROMOFLUOROBENZENE	0.857449	0.91033360		6.17	40	0.0160	0.01699	106	67 - 138
TOLUENE-D8	2.048553	2.302076		12.40	40	0.0160	0.01798	112	75 - 131

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1621880	**Calibration (begin) date/time:**	05/11/23 15:46
Instrument ID:	VOCMS32	**Calibration (end) date/time:**	05/11/23 18:58
Lab File ID:	0616_25	**Analysis date/time:**	06/16/23 15:30
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.734284	0.65568230		10.70	20	0.0050	0.004465	89.30	
1,2-DICHLOROETHANE-D4	0.299310	0.360102		20.30		0.0160	0.01925	120	70 - 130
4-BROMOFLUOROBENZENE	0.857449	0.810757		5.45		0.0160	0.01513	94.60	70 - 130
TOLUENE-D8	2.048553	2.215745		8.16		0.0160	0.01731	108	70 - 130

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

ANALYTICAL SEQUENCE

SDG:	L1621880	**Analytical Method:**	8260B
Instrument ID:	VOCMS6	**Calibration Start Date:**	05/21/23 19:13
		Calibration End Date:	05/27/23 06:08

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS60521230521_03641158	0521_03	05/21/23 17:47		
CAL	1	0521_07	05/21/23 19:13		
CAL	2	0521_08	05/21/23 19:35		
CAL	5.0	0521_09	05/21/23 19:57		
CAL	25	0521_10	05/21/23 20:19		
CAL	75	0521_11	05/21/23 20:40		
CAL	100	0521_12	05/21/23 21:02		
CAL	200	0521_13	05/21/23 21:23		
SSCV	VOCMS60521230521_17641158	0521_17	05/21/23 22:50		
SSCV	VOCMS60521230521_18641158	0521_18	05/21/23 23:11		
TUNE	VOCMS60526230526_01641158	0526_01	05/26/23 03:32		
TUNE	VOCMS60526230526_02641158	0526_02	05/26/23 03:54		
TUNE	VOCMS60526230526_03641158	0526_03	05/26/23 04:15		
CAL	1A	0526_05	05/26/23 04:58		
CAL	5A	0526_06	05/26/23 05:20		
CAL	10A	0526_07	05/26/23 05:42		
CAL	15A	0526_08	05/26/23 06:03		
CAL	20A	0526_09	05/26/23 06:25		
CAL	.5	0526_18	05/26/23 09:39		
CAL	1	0526_19	05/26/23 10:01		
CAL	2	0526_20	05/26/23 10:22		
CAL	5.0	0526_21	05/26/23 10:44		
CAL	10	0526_22	05/26/23 11:06		
CAL	20	0526_23	05/26/23 11:27		
TUNE	VOCMS60527230527_01641158	0527_01	05/27/23 02:54		
CAL	5	0527_05	05/27/23 04:19		
CAL	10	0527_06	05/27/23 04:41		
CAL	50	0527_07	05/27/23 05:03		
CAL	100	0527_08	05/27/23 05:24		
CAL	500	0527_09	05/27/23 05:46		
CAL	1000	0527_10	05/27/23 06:08		
TUNE	VOCMS6060623A0606A_01T641158	0606A_01T	06/06/23 17:53		
ICV	VOCMS6060623A0606A_03641158	0606A_03	06/06/23 18:36		
LCS	R3933706-1	0606A_03LCSA	06/06/23 18:36	1	WG2072435
LCS	R3933707-1	0606A_03LCSB	06/06/23 18:36	1	WG2072634
LCS	R3933708-1	0606A_03LCS	06/06/23 18:36	1	WG2072759
TUNE	VOCMS6060623A0606A_05T641158	0606A_05T	06/06/23 19:19		
BLANK	R3933706-2	0606A_06A	06/06/23 21:15	1	WG2072435
BLANK	R3933707-2	0606A_06B	06/06/23 21:15	1	WG2072634
BLANK	R3933708-2	0606A_06	06/06/23 21:15	1	WG2072759
L1619661-10	L1619661-10	0606A_07	06/06/23 22:02	1	WG2072435
L1620914-03	L1620914-03	0606A_08	06/06/23 22:23	1	WG2072634
TB-01-0523	L1621880-10	0606A_10	06/06/23 23:07	1	WG2072759
L1622080-04	L1622080-04	0606A_11	06/06/23 23:28	1	WG2072759
L1622181-01	L1622181-01	0606A_12	06/06/23 23:50	1	WG2072759
L1622181-04	L1622181-04	0606A_13	06/07/23 00:11	1	WG2072759
L1622181-05	L1622181-05	0606A_14	06/07/23 00:33	1	WG2072759
L1623075-01	L1623075-01	0606A_15	06/07/23 00:54	1	WG2072759
L1623075-02	L1623075-02	0606A_16	06/07/23 01:16	1	WG2072759
L1623075-03	L1623075-03	0606A_17	06/07/23 01:38	1	WG2072759
L1623075-04	L1623075-04	0606A_18	06/07/23 01:59	1	WG2072759

ANALYTICAL SEQUENCE

SDG:	L1621880	**Analytical Method:**	8260B
Instrument ID:	VOCMS6	**Calibration Start Date:**	05/21/23 19:13
		Calibration End Date:	05/27/23 06:08

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
L1623075-05	L1623075-05	0606A_19	06/07/23 02:21	1	WG2072759
MW-2S-0523	L1621880-01	0606A_20	06/07/23 02:43	1	WG2072759
MW-3S-0523	L1621880-02	0606A_21	06/07/23 03:04	1	WG2072759
MW-8S-0523	L1621880-03	0606A_22	06/07/23 03:26	1	WG2072759
MW-12S-0523	L1621880-04	0606A_23	06/07/23 03:47	1	WG2072759
MW-13S-0523	L1621880-05	0606A_24	06/07/23 04:09	1	WG2072759
MW-14S-0523	L1621880-06	0606A_25	06/07/23 04:30	1	WG2072759
MW-FD01-0523	L1621880-07	0606A_26	06/07/23 04:52	1	WG2072759
AB-01-0523	L1621880-08	0606A_27	06/07/23 05:14	1	WG2072759
EB-01-0523	L1621880-09	0606A_28	06/07/23 05:35	1	WG2072759
L1621896-01	L1621896-01	0606A_29	06/07/23 05:57	1	WG2072759
MS	R3933708-3	0606A_30	06/07/23 06:19	1	WG2072759
MSD	R3933708-4	0606A_31	06/07/23 06:40	1	WG2072759

ANALYTICAL SEQUENCE

SDG:	L1621880	**Analytical Method:**	8260B
Instrument ID:	VOCMS32	**Calibration Start Date:**	05/11/23 15:46
		Calibration End Date:	05/11/23 18:58

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS320511230511_04638347	0511_04	05/11/23 13:04		
TUNE	VOCMS320511230511_05638347	0511_05	05/11/23 13:23		
TUNE	VOCMS320511230511_06638347	0511_06	05/11/23 13:51		
CAL	0.5	0511_12	05/11/23 15:46		
CAL	1	0511_13	05/11/23 16:05		
CAL	2	0511_14	05/11/23 16:24		
CAL	5.0	0511_15	05/11/23 16:44		
CAL	25	0511_16	05/11/23 17:03		
CAL	75	0511_17	05/11/23 17:22		
CAL	100	0511_18	05/11/23 17:41		
CAL	200	0511_19	05/11/23 18:00		
CAL	1A	0511_22	05/11/23 18:58		
CAL	5A	0511_22	05/11/23 18:58		
CAL	10A	0511_22	05/11/23 18:58		
CAL	15A	0511_22	05/11/23 18:58		
CAL	20A	0511_22	05/11/23 18:58		
SSCV	VOCMS320511230511_24638347	0511_24	05/11/23 19:36		
TUNE	VOCMS32061623A0616_24T638347	0616_24T	06/16/23 15:11		
ICV	VOCMS32061623A0616_25638347	0616_25	06/16/23 15:30		
LCS	R3937966-1	0616_25LCSA	06/16/23 15:30	1	WG2079322
LCS	R3937967-1	0616_25LCSB	06/16/23 15:30	1	WG2079353
LCS	R3937968-1	0616_25LCS	06/16/23 15:30	1	WG2079413
LCSD	R3937966-2	0616_26A	06/16/23 15:49	1	WG2079322
LCSD	R3937967-2	0616_26B	06/16/23 15:49	1	WG2079353
LCSD	R3937968-2	0616_26	06/16/23 15:49	1	WG2079413
BLANK	R3937966-3	0616_28	06/16/23 17:24	1	WG2079322
BLANK	R3937967-3	0616_28B	06/16/23 17:24	1	WG2079353
BLANK	R3937968-3	0616_28A	06/16/23 17:24	1	WG2079413
L1624668-01	L1624668-01	0616_29	06/16/23 18:58	1	WG2079353
MW-13S-0523	L1621880-05	0616_30	06/16/23 19:17	5	WG2079322
MW-FD01-0523	L1621880-07	0616_31	06/16/23 19:36	5	WG2079322
L1624617-02	L1624617-02	0616_32	06/16/23 19:55	50	WG2079353
L1624617-03	L1624617-03	0616_33	06/16/23 20:14	20	WG2079353
L1624668-11	L1624668-11	0616_34	06/16/23 20:33	200	WG2079353
L1625952-02	L1625952-02	0616_36	06/16/23 21:12	1	WG2079413
L1625952-03	L1625952-03	0616_37	06/16/23 21:31	1	WG2079413
L1625952-04	L1625952-04	0616_38	06/16/23 21:50	1	WG2079413
L1626067-01	L1626067-01	0616_39	06/16/23 22:09	1	WG2079413
L1626274-02	L1626274-02	0616_40	06/16/23 22:28	1	WG2079413
L1626274-03	L1626274-03	0616_41	06/16/23 22:47	1	WG2079413
L1626274-05	L1626274-05	0616_42	06/16/23 23:06	1	WG2079413
L1626274-07	L1626274-07	0616_43	06/16/23 23:25	1	WG2079413
L1626280-01	L1626280-01	0616_44	06/16/23 23:44	1	WG2079413
L1626691-04	L1626691-04	0616_45	06/17/23 00:03	1	WG2079413
L1625952-01	L1625952-01	0616_46	06/17/23 00:22	5	WG2079413
L1626274-01	L1626274-01	0616_47	06/17/23 00:41	50	WG2079413
L1626274-04	L1626274-04	0616_48	06/17/23 01:00	50	WG2079413
L1626274-06	L1626274-06	0616_49	06/17/23 01:19	10	WG2079413

DETECTION LIMIT SUMMARY

Lab Sample IDs:	L1621880-01,02,03,04,05,06,07,08,09,10	**Analytical Method:**	8260B
Matrix:	GW	**Prep Method:**	8260B

Analyte	CAS	MDL	RDL
		mg/l	*mg/l*
Tetrachloroethene	127-18-4	0.0003	0.0010

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3933708-2	**SDG:**	L1621880
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0606A_06	**Received Date/Time:**	
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/06/23 21:15
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/06/23 21:15
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3937966-3	**SDG:**	L1621880
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0616_28	**Received Date/Time:**	_____
Instrument ID:	VOCMS32	**Preparation Date/Time:**	06/16/23 17:24
Analytical Batch:	WG2079322	**Analysis Date/Time:**	06/16/23 17:24
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3933708-1	**SDG:**	L1621880
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0606A_03LCS	**Received Date/Time:**	
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/06/23 18:36
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/06/23 18:36
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.72	4.34		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3937966-1	**SDG:**	L1621880
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0616_25LCSA	**Received Date/Time:**	
Instrument ID:	VOCMS32	**Preparation Date/Time:**	06/16/23 15:30
Analytical Batch:	WG2079322	**Analysis Date/Time:**	06/16/23 15:30
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.57	4.47		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3937966-2	**SDG:**	L1621880
Client Sample ID:	LCSD	**Collected Date/Time:**	
Lab File ID:	0616_26A	**Received Date/Time:**	
Instrument ID:	VOCMS32	**Preparation Date/Time:**	06/16/23 15:49
Analytical Batch:	WG2079322	**Analysis Date/Time:**	06/16/23 15:49
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.56	4.49		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3933708-3	**SDG:**	L1621880
Client Sample ID:	MS	**Collected Date/Time:**	05/30/23 17:40
Lab File ID:	0606A_30	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 06:19
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 06:19
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	6.92		0.300	1.00

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3933708-4	**SDG:**	L1621880
Client Sample ID:	MSD	**Collected Date/Time:**	05/30/23 17:40
Lab File ID:	0606A_31	**Received Date/Time:**	06/01/23 09:00
Instrument ID:	VOCMS6	**Preparation Date/Time:**	06/07/23 06:40
Analytical Batch:	WG2072759	**Analysis Date/Time:**	06/07/23 06:40
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.73	6.60		0.300	1.00

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
Mass	Mass of parameter.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Pace Analytical
12065 Lebanon Rd.
Mount Juliet, TN 37122
615-758-5858

CHAIN OF CUSTODY RECORD

H090

Jacobs
4121 Carmichael Dr., Suite 400
Montgomery, AL 36106
(334) 215-9058
FAX (334) 273-7532

Project/Contact Information	
PO #	148035661
Project Name	Montgomery DEAP
Project Chemist/ Report Copy to	Kaye Walker/MGM
Company Name/Contact	Jacobs/Glen Davis/MGM

Sampling Date	Sampling Time	Type Comp	Type Grab	Matrix Water	Matrix Soil	Matrix Air	Client Sample ID (9 Characters Max)	LAB QC	Total Number of Containers	Requested Analysis: VOCs - PCE only SW8260B	Preservative	Alternate Description	Lab ID
5/31/23	1205		/	/			MW-2S-0523		3	X			-01
5/31/23	1340		/	/			MW-3S-0523	MS	9	X		MS/MSD	-02
5/30/23	1740		/	/			MW-8S-0523		3	X			-03
5/30/23	1520		/	/			MW-12S-0523		3	X			-04
5/31/23	1525		/	/			MW-13S-0523		3	X			-05
5/31/23	0950		/	/			MW-14S-0523		3	X			-06
5/31/23	1530		/	/			MW-FD01-0523		3	X			-07
5/31/23	1540		/	/			AB-01-0523		3	X			-08
5/31/23	1555		/	/			EB-01-0523		3	X			-09
5/31/23	1600		/	/			TB-01-0523		1	X			-10

THIS AREA FOR LAB USE ONLY		
Lab #	Pg	of
Lab PM	Custody Review	
Log In	LIMS Verification	
pH	Cust Seals Y N / Ice Y N	
QC Level 1 2 3		
Cooler Temperature		
L1621880		

Sampled By: Ethan Davis/Jacobs 5/31/23
Relinquished By: Ethan Davis
Received By: Alexa Mitchell 6/1/23 0900
Relinquished By:
Received By:
Date/Time:

Special Instructions

Contact Project Chemist with ANY QC exceedance
EPA DQO Level III data package and 21 day TAT are required.

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	✓ Y N	VOA Zero Headspace:	✓ Y N
Bottles arrive intact:	✓ Y N	Pres.Correct/Check:	Y N
Correct bottles used:	✓ Y N		
Sufficient volume sent:	✓ Y N		
RAD Screen <0.5 mR/hr:	✓ Y N		

6481 5469 8249

File: MGM_DEAP_COC_May_2023

Attachment 2
Field Records

Location Montgomery, AL Date 5-30-2023

Project / Client Montgomery DEAP

TIME	WIND N. 1 C.Scott Porter/M&M E. Daves/ATL
0700	64° Mostly Sunny the High 83°
	Ala State Bar Ass. (334)269-1515 Gate code 1887
	Ricky Steakin Montgomery Biscuits MW-145
	334)354-6303
08:00	HACH 2100Q-C 103191 Lot. AR0413A
08:08	Cal. 6.52 Read 6.52
08:09	Cal 57.1 Read 57.3
08:10	Cal 554 Read 554
08:15	Pump geo control PRO C-103379
	Battery on Charge.
08:18	YSI Professional Plus C-103242
08:20	MultiRAE 5e Gas Meter C-102941
	5-18-2023 Cla.
	OXY 20.9% / LEL 0% / CO 0ppm
08:35	H2S 0.0ppm / VOC 0.2ppm.
	AIR Cal. PASS
08:37	YSI Cal DO% mg/L 8.48
	Jacobs Conductivity Standard 1413 µS/CM Mar 24 Lot 3GC10Q
	Jacobs Buffer Solution pH. 4.00 Lot 3GA1136 Jun/25.
	Jacobs Buffer Solution pH 7.00 Lot 3GB359 FEB/25
	Jacobs Buffer Solution pH 10.00 Lot 3GB340 FEB/25
0855	YSI Zobell Solution LN. 22H100576 8-23-27

05-30-2023

Rite in the Rain

16 D3632200.A.PN.EV.01-GM

Location Montgomery, AL Date 05-30-2023

Project / Client Montgomery DEAP

E 3 mph ESE 72° Sunny

0912 E. Davies arrives at MGM office. Begin planning work and loading equipment

1000 Head downtown to begin gauging
- Gauging results on separate sheet

1300 Gauging complete

1310 Lunch

1410 Set up on MW-12S

- Resolve issue with air compressor

1445 Begin purging MW-12S

1520 Collect sample MW-12S-0523 for VOC analysis

1540 Decon bladder pump

1550 Set up on MW-08S

1615 Begin purging MW-08S

- Air was leaking from bladder pump causing bubbles - High DO

1730 Bladder fixed

1740 Collect sample MW-08S-0523 for VOCs

Samples will be stored overnight

1800 Depart site

5/30/23

17

Location Montgomery, AL Date 5/31/23

Project / Client Montgomery DEAP

Personnel: E. Davies/ATL, S. Porter/MGM

Weather: 70°/85°F Cloudy

Equipment: YSI ProPlus, Hach 2100Q, MultiRae, WLM, Geo Pump Compressor, Bladder pump

Objective: Continues sampling downtown Montgomery monitoring wells for VOCs

0800 Meet on site and conduct H&S Tail gate

0810 Calibrate YSI

DO: 772 barrilly, 99.7%

S. Cond: STD: 1413 µS/cm 1.399 → 1.413

pH4: 3.95 → 4.00

pH7: 7.03 → 7.00

pH10: 10.10 → 10.00

ORP: STD 224mV, 286.5 → 224

0845 Set up on MW-14S

0900 Begin purging MW-14S

0950 Collect sample MW-14S-0523 for VOC analysis

1005 Decon bladder pump

1025 Lunch

1125 Set up on MW-2S with bladder pump

1137 Begin purging MW-2S

1205 Collect sample MW-2S-0523 for VOC analysis

Location Montgomery, AL Date 5/31/23

Project / Client Montgomery DEAP

1215 Decon the bladder pump and replace the bladder

1245 Set up on MW-3S

1255 Begin purging MW-3S

1300 Turbidity meter out of battery. S. Porter goes to gas station for more.

1340 Collect sample MW-03S-0523 + MS/MSD

1355 Decon and replace bladder in bladder pump.

1420 Set up on MW-13S

1438 Begin purging MW-13S

1525 Collect sample MW-13S-0523

1530 Collect FD sample MW-FD01-0523

1540 Collect Ambient blank AB-01-0523

1555 Collect equipment blank from decanned bladder pump EB-01-0523

1600 Collect Trip blank TB-01-0523

* Only 1 TB bottle provided by lab

1630 All IDW purge water dumped in approved area at Enchanchente Water Treatment Plant

1700 Samples shipped via FedEx

1730 E. Davies departs MGM.

Location Date

Project / Client

Montgomery DEAP

Montgomery, AL

Event: May 2023 Groundwater Sampling Event

Personnel: E Davies + S Porter

Well	Date	Time	Depth to Product, ft	Depth to Water, ft	Product Thickness, ft	Total Well Depth, ft	Comments
MW-1S	5-30-23	1147	-	35.62	-	51.58	0.0ppm
MW-1I		1149	-	36.88	-	141.40	0.0 ppm
MW-2S		1120	-	37.18	-	58.53	0.0ppm, Lot blocked off
MW-3S		1128	-	53.23	-	59.45	0.2ppm
MW-4S		1246	-	28.70	-	38.50	0.1ppm
MW-4I		1249	-	30.12	-	125.03	0.0ppm
MW-5I		1203	-	54.91	-	158.46	1.0ppm
MW-7S		1105		NM			Blocked
MW-7I		1112		NM			Blocked
MW-8S	~~5-19~~	1019		34.61	-	51.52	0.0ppm
MW-8I		1020		34.52	-	118.72	0.0ppm, Lid broken
MW-9S		1234		51.86		72.00	0.0ppm
MW-10S		1221	-	53.88	-	71.73	0.0ppm
MW-12S		1034	-	24.46	-	41.98	0.0ppm
MW-12I		1031	-	24.98	-	104.42	0.0ppm, soft bottom, bad cap
TMPZ-1/MW-13S		1046	-	29.03	-	47.45	0.0ppm
MW-14S		1054	-	28.62	-	49.32	0.0ppm

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-12S	SAMPLE ID: MW-12S-0523	DATE: 5/30/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 41.98	STATIC DEPTH TO WATER (ft): 24.46	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (41.98 – 24.46) X 0.163 = 2.85

PURGE METHOD: Low flow	PURGE INITIATED AT: 1445	PURGE ENDED AT: 1525	TOTAL VOL. PURGED (gal): 3.5

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE ~~(gpm)~~ mL/min	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1500	1.5	1.5	280	24.34	5.44	21.2	171.8	3.74	5.21	164.4
1505	0.3	1.8	280	24.34	5.44	21.2	166.1	0.78	5.22	166.0
1510	0.3	2.1	280	24.34	5.43	21.5	167.4	1.05	5.19	167.6
1515	0.3	2.4	280	24.34	5.43	21.3	170.7	0.47	5.16	168.5
1520	0.4	2.8	280	24.34	5.42	21.5	169.9	0.34	5.11	169.2

L CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies / Jacobs	SAMPLER(S) SIGNATURE(S):

SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1520	SAMPLING ENDED AT: 1525

FIELD DECONTAMINATION: (Y) N FIELD-FILTERED: Y (N) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	AG	40mL	HCl	40mL	5.42	VOCs

REMARKS:

ERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-08S	SAMPLE ID: MW-08S-0523	DATE: 5/30/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 51.52	STATIC DEPTH TO WATER (ft): 34.57	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (51.52 – 34.57) X 0.16 = 2.7

PURGE METHOD: Low flow	PURGE INITIATED AT: 1615	PURGE ENDED AT: 1743	TOTAL VOL. PURGED (gal): 3.7

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm) mL/min	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1625	0.3	0.3	150	32.88	5.04	26.9	227.5	9.36	5.09	186.7
1630	0.1	0.4	130	32.95	5.03	26.3	226.9	5.61	5.04	186.1
1635	0.1	0.5	130	33.00	5.03	26.3	224.2	2.04	5.12	185.8
1640	0.1	0.6	130	33.00	5.03	26.4	224.2	1.49	5.12	186.1
1645	0.1	0.7	130	33.00	5.03	26.9	223.8	0.99	5.19	185.9
1650	0.1	0.8	130	33.00	5.02	25.9	224.0	0.75	5.53	185.6
1655	0.2	1.0	190	33.23	5.35	24.7	215.4	7.05	8.17	174.0
1700	0.2	1.2	200		5.59	25.0	218.4	17.1	9.02	164.1
1720	0.4	1.6	200	34.57	6.39	24.3	211.5	9.30	9.42	140.7
1730	0.5	2.1	250	34.57	5.48	23.4	213.5	2.77	8.51	160.5

Cont

VOLUME CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies/Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Bladder	SAMPLING INITIATED AT: 1740	SAMPLING ENDED AT: 1743
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	AG	40mL	HCl	39.5	5.48	VOCs

REMARKS: Issues with bladder pump air leak causing

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

E ME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-085	SAMPLE ID: MW-085-0523	DATE: 5/30/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft):	STATIC DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (–) X =

PURGE METHOD:	PURGE INITIATED AT:	PURGE ENDED AT:	TOTAL VOL. PURGED (gal):

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1735	0.4	2.5	280	34.56	5.49	23.0	212.7	3.79	8.48	160.7
1740	0.5	3.0	280	34.56	5.48	24.0	211.3	2.41	8.54	162.4

L CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S): Bladder	SAMPLING INITIATED AT: 1740	SAMPLING ENDED AT: 1743
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	AG	40mL	HCl	39.5	5.48	VOCs

REMARKS:

TERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

E ME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-135	SAMPLE ID: MW-135-0523	DATE: 5/31/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 47.45	STATIC DEPTH TO WATER (ft): 28.97	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (47.45 – 28.97) x 0.16 = 3.0

PURGE METHOD: Bladder - Low Flow	PURGE INITIATED AT: 1438	PURGE ENDED AT: 1535	TOTAL VOL. PURGED (gal): 4.7

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1445	1.0	1.0	250	28.98	5.72	22.1	180.7	288	7.51	77.2
1450	0.4	1.4	280	28.97	5.46	21.9	181.6	205	5.78	79.7
1455	0.4	1.8	280	28.97	5.45	22.0	180.5	124	5.69	81.7
1500	0.4	2.2	280	28.97	5.45	21.8	181.6	68.1	5.67	82.9
1505	0.3	2.5	280	28.97	5.42	21.6	181.5	40.8	5.62	84.1
1510	0.3	2.8	250	28.97	5.41	21.6	181.9	34.9	5.66	85.1
1515	0.3	3.1	250	28.97	5.41	21.8	181.9	19.8	5.67	85.8
1520	0.4	3.5	250	28.97	5.41	21.8	182.7	13.3	5.60	86.6
1525	0.4	3.9	250	28.97	5.40	21.8	183.3	8.27	5.58	87.1

.L CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: (Y) N

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
6	AG	40mL	HCl	40mL	5.40	VOCs

REMARKS: MW-FD01-0523 @1530

.TERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-145	SAMPLE ID: MW-145-0523	DATE: 5/31/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 49.32	STATIC DEPTH TO WATER (ft): 28.68	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (49.32 – 28.68) x 0.16 = 3.3

PURGE METHOD: Bladder Pump - Low Flow	PURGE INITIATED AT: 0900	PURGE ENDED AT: 0953	TOTAL VOL. PURGED (gal): 5.0

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm) mL/min	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
0905	0.4	0.4	250	28.68	5.40	22.3	196.2	584	5.49	108.8
0910	0.2	0.6	250	28.68	5.38	22.2	194.0	113	5.26	109.8
0915	0.3	0.9	250	28.68	5.35	22.2	192.4	59.1	4.99	110.9
0920	0.4	1.3	250	28.68	5.34	22.1	192.2	31.6	4.96	110.9
0925	0.4	1.7	250	28.68	5.32	22.0	191.0	24.2	4.97	111.4
0930	0.5	2.2	250	28.68	5.31	22.1	187.4	19.0	4.99	110.6
0935	0.3	2.5	250	28.68	5.31	22.1	187.6	14.4	4.97	111.4
0940	0.4	2.9	250	28.68	5.29	22.1	187.9	9.81	4.96	112.6
0945	0.4	3.3	250	28.68	5.29	22.1	186.8	7.66	4.98	112.8
0950	0.4	3.7	250	28.68	5.29	22.1	186.9	6.50	4.94	112.9

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 0950	SAMPLING ENDED AT: 0953

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	AG	40mL	HCl	40	5.21	VOCs

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: D3632200
WELL NO: MW-02S	SAMPLE ID: MW-02S-0523	DATE: 5/31/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 58.53	STATIC DEPTH TO WATER (ft): 37.18	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (58.53 – 37.18) X 0.16 = 3.4 gal

PURGE METHOD: Bladder - Low Flow	PURGE INITIATED AT: 11:37	PURGE ENDED AT: 1210	TOTAL VOL. PURGED (gal): 2.5

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm) mL/min	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1145	0.3	0.3	280	37.20	5.17	23.5	218.1	500	5.99	88.8
1150	0.3	0.6	280	37.20	5.17	23.3	216.4	321	6.02	90.6
1155	0.3	0.9	280	37.20	5.17	23.2	216.3	84.2	5.99	93.0
1200	0.4	1.3	280	37.20	5.17	23.2	216.3	9.04	5.96	95.4
1205	0.4	1.7	280	37.20	5.15	23.0	215.9	7.99	5.95	97.5

L CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1205	SAMPLING ENDED AT: 1207

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	AG	40 mL	HCl	40 mL	5.15	VOCs

REMARKS:

ERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

E ME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW

WELL NO: MW-035 | SAMPLE ID: MW-035-0523 | DATE: 5/31/23

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 59.45	STATIC DEPTH TO WATER (ft): 53.23	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

=(–) X = 1.0

PURGE METHOD: Bladder - Low Flow	PURGE INITIATED AT: 1255	PURGE ENDED AT: 1346	TOTAL VOL. PURGED (gal): 2.3

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (µmhos)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1310	0.3	0.3		53.23	5.79	21.8	205.9		9.70	73.6
1320	0.4	0.7	150	53.25	5.68	21.8	208.0		9.04	79.1
1325	0.1	0.8	140	53.24	5.70	21.7	207.8	7.30	6.10	79.2
1330	0.2	1.1	150	53.24	5.69	21.7	206.6	4.23	8.11	79.6
1335	0.2	1.3	150	53.24	5.71	21.7	208.8	3.91	8.13	80.0
1340	0.2	1.5	150	53.24	5.72	21.7	211.6	3.10	8.16	80.3

L CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Ethan Davies/Jacobs	SAMPLER(S) SIGNATURE(S):
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1340
SAMPLING ENDED AT: 1346	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)
DUPLICATE: (Y) N MS/MSD	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
9	AG	40mL	HCl	40	5.72	VOCs

REMARKS: MS + MSD @ 1340
Turb meter out of battery at beginning

ERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Attachment 3
Photograph Log

Project Title: **Montgomery Downtown Environmental Assessment Project**

Location: Montgomery, Alabama

Date: March 11, 2024

Photograph 1: Courtyard of the Orderman House Property in Old Alabama Town (historical well in background

Photograph 2: Former Location of Residential Property at 405 North Decatur Street

Photograph 3: Hotel construction west of MW-08S

Photograph 4: Hotel construction west of MW-08S

Photograph 5: 300 Block Madison

Photograph 6: 300 Block Madison

Photograph 7: 300 Block Madison

Photograph 8: 300 Block Madison

Photograph 9: 300 Block Madison

Photograph 10: 300 Block Madison - Jenny Weller Catering

Photograph 11: 300 Block Madison - Jenny Weller Catering

Photograph 12: North Lawrence Street (Parcel Number 10 03 07 2 203 014.000

Photograph 13: North Lawrence Street (Parcel Number 10 03 07 2 203 014.000)

Photograph 14: Washington Avenue Right-of-Way

Photograph 15: 317 North Decatur Street – McClendon Service Center