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Final Report

Phase 2: Prioritization of PFAS Contributions to Weiss Lake

Cherokee County, Alabama & Floyd County, Georgia

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The activities depicted in this Final Report are accredited under the US EPA Region 4 Laboratory Services & Applied Science Division ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AT-1644.

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SECTION A: Report Distribution & Project Participants		
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[1] Project Leader and all Task Leaders assisting with this project have been deemed competent by LSASD management, under ISO 17025 accreditation, to conduct the tasks required to fulfill the prescribed goals.

SECTION B: Project Overview & Design

B1. Introduction

The headwaters of the Coosa River basin begin in Tennessee and the North Georgia Mountains as the Conasauga, Coosawattee, and Etowah Rivers. The confluence of the Conasauga and the Coosawattee form the Oostanaula River south of Dalton Georgia before converging with the Etowah River forming the Coosa River in Rome Georgia. The Coosa River flows west across the Alabama-Georgia state line and is then impounded in Leesburg Alabama to form Weiss Lake. Along with the Coosa River, Weiss Lake is fed by the Chattooga River, Little River, and numerous smaller tributaries draining a significant portion of Northeastern Alabama and Northwestern Georgia. Weiss Lake is a significant recreational and hydroelectric resource and serves as the municipal drinking water supply for the City of Centre Alabama and surrounding townships.

Weiss Lake and two of its main tributaries (i.e., Chattooga and Coosa Rivers) have historically tested positive for the presence of per- and polyfluoroalkyl substances (PFASs) via monitoring studies conducted by the Alabama Department of Environmental Management (ADEM), the Georgia Environmental Protection Division (GAEPD), and the U.S. EPA Region 4's Laboratory Services & Applied Science Division (LSASD). PFAS is a generic nomenclature encompassing a broader array of chemicals, with the most studied being perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS). The U.S. EPA has issued a Lifetime Health Advisory (LHA) for drinking water of 70 ng/L (ppt) for combined concentrations of PFOA and PFOS compounds. Extensive information regarding PFASs can be found at http://www.epa.gov/pfas.

Exceedances of the U.S. EPA's LHA for PFOA and PFOS have been observed at both the drinking water intakes for the City of Centre Alabama in Weiss Lake and further downstream on the Coosa River in the City of Gadsden Alabama. Data collected by ADEM from 2016 through 2019 detected both PFOA and PFOS in Weiss Lake, the Chattooga River, and on the Coosa River (upstream and downstream of the lake). Studies conducted by GAEPD in 2012 and 2016 found PFOA and PFOS compounds in the Conasauga River and the receiving waters of the Oostanaula and Coosa Rivers. A subsequent study conducted by LSASD in 2018 observed positive detections of PFOS in the upper Chattooga watershed. PFOA was not detected in the 2018 study conducted by LSASD. The 2018 sampling of the Chattooga River by LSASD was conducted during an extreme high flow event thus dilution effects may have been a factor (USEPA, 2018*b*).

The purpose of this study was to obtain background concentrations of PFASs for all main inputs to Weiss Lake in conjunction with streamflow measurements, to provide estimates of instantaneous mass loading rates for a broader picture of system-wide contributions of PFASs. This study included 2 vertical profiling stations and additional water quality parameters to investigate both the vertical distribution of observed PFASs within the lake water column and correlation with other contaminants of concern.

B2. Methodology

All field activities described below were conducted in accordance with the approved Phase 2: Prioritization of PFAS Contributions to Weiss Lake Sample and Analysis Plan (USEPA, 2019*c*), standard operating procedures and policies outlined in the Applied Science Branch Quality Assurance Project Plan (USEPA, 2018*a*), and LSASD's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board.

Study Area:

The study area for this project included Weiss Lake and all its main tributaries in Cherokee County Alabama and Floyd County Georgia (Figure 1). A total of 23 stations were assessed by LSASD personnel on the dates of May 20th – 23rd, 2019. The stations included 17 inflowing tributaries, 2 outflowing tributaries at both Weiss Lake Dams, the public drinking water intakes for Centre City and Gadsden Alabama, and 2 vertical profiling stations located on the surface of Weiss Lake. The dams are the only surface water outlets for Weiss Lake discharging directly into the Coosa River. The inflowing tributaries include 14 named rivers and streams and 3 un-named creeks with drainages adjacent to the Cherokee County Regional and Centre City Municipal Airports. See Table 1 for station IDs, descriptions and coordinates of all sampling stations.

Surface Water Sample Collection:

Surface water samples were collected on the inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for all analytes listed in Tables 2 through 6 at the LSASD Laboratory in Athens, Georgia. Surface water samples collected at both outflowing tributaries listed in Table 1 were analyzed for the 25 PFASs listed in Table 6 only. Three additional surface water samples were collected at both vertical profiling stations (Table 1) on the surface of Weiss Lake and analyzed for PFAS analytes (Table 6) as well.

The sample container, preservation, and holding time requirements for all analytes are listed in Table 7. All surface water samples were collected in accordance with LSASD's Standard operating Procedure for Surface Water Sampling (USEPA, 2016*b*). Due to the water depth and stream width, surface water samples collected on the inlets of the Coosa (CRI) and Chattooga Rivers (CHR) were first collected via stainless steel buckets lowered over the bridge crossings at each site and samples were then transferred into the appropriate containers for all corresponding analyses listed in Table 7. Surface water samples collected at both outflowing tributaries (CRO01 and CRO02) and the Gadsden public drinking water intake (Table 1 and Figure 1) were collected directly into the appropriate containers (Table 7) approximately 6-inches below the water surface, located along the streambank facing upstream into the flow. At the Centre public drinking water intake (C100), LSASD personnel waded into the lake to a water depth approximately waist to chest height within the vicinity of the drinking water intake and collected surface water samples directly into the appropriate containers approximately 6-inches below the water surface. Surface water samples collected at both profiling stations (WL01 and WL02) were collected directly into the containers approximately 6-inches below the water surface from the edge of the boat while anchored on station. Mid- and near-bottom depth water samples were collected via high density polyethylene (HDPE) tubing fastened to a multi-parameter data sonde equipped with a depth sensor. The HDPE tubing was first purged with water at depth and then filled with sample water via peristaltic pump attached to silicon tubing. Samples were discharged directly into 15-mL polyethylene vials for PFAS analysis (Tables 6 and 7) from the HDPE tubing by retrieving the tubing back to the surface and reversing the flow on the pump in order to prevent sample water from contacting the silicon tubing. New sections of HDPE and silicon tubing were used for the collection of each depth sample at both the profiling stations. All other surface water samples were collected by wading in to a mid-channel location and directly filling the appropriate containers (Table 7) facing upstream.

Surface water and sediment samples collected for PFAS analysis were sampled via a trace level sampling technique to avoid cross-contamination of PFAS surface water samples due to sample collection and handling. This process required two field personnel for PFAS sample collection. A designated sampler handled the sample media and sample container only. A second designee operated sampling equipment and assisted with sample container packaging and labeling. Sampling equipment known or suspected to contain PFASs (e.g. Teflon® and Gore-Tex®) was avoided during sampling activities. Quality control samples which included field equipment rinse blanks, field blanks, and trip blanks were collected to account for the potential of cross-contamination. Additional quality control samples such as temperature blanks, field duplicates and matrix spike/matrix spike duplicates were collected in accordance with the LSASD Standard Operating Procedure for Field Sampling Quality Control (USEPA, 2017*b*) and are discussed in Section C4: Data Quality.

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In-Situ Water Quality Field Measurements:

Surface water quality measurements of temperature, dissolved oxygen, specific conductance, turbidity, and pH were collected *in-situ* via YSI EXO1 multi-parameter data sondes and LaMotte 2020 turbidimeters at each site in accordance with LSASD's Standard Operating Procedure for *In-Situ* Water Quality Monitoring (USEPA, 2018*c*). See Table 8 for a detailed list of *in-situ* water quality parameters. *In-situ* measurements of the water quality parameters listed in Table 8 were collected at 2-foot intervals to construct a vertical profile of the water column at both Weiss Lake profiling stations (WL01 and WL02). Field measurements of turbidity at the vertical profiling stations were collected at 2-foot intervals in units of Formazin Nephelometric Units (FNUs) via the onboard optical turbidity probe. Additional measurements of field turbidity were collected at depth via peristaltic pump in association with PFAS surface water sample collection and measured using a LaMotte 2020 turbidimeter in Nephelometric Turbidity Units (NTUs). A correlation curve was constructed to convert turbidity measurements in FNUs to NTUs for the lake profiling stations. The resulting trendline was used to interpolate values of turbidity along the vertical profile in units of NTUs.

Stream Flow Measurements & Mass Loading:

Stream flow measurements were collected at each inflowing and outflowing tributary site (Table 1 and Figure 1) via acoustic doppler velocimeter (ADV) or a remotely-operated acoustic doppler current profiler (ADCP) depending on water depth and flow in accordance with LSASD's Standard Operating Procedure for Hydrological Studies (USEPA, 2016*a*). A Sontek Flowtracker 2 was used to collect ADV flow measurements in tributaries with wadeable cross sections. A Rio Pro 1200kHz ADCP by Teledyne RD Instruments mounted to a remotely-operated Q-Boat by Ocean Science was used in the larger or deeper tributaries for ADCP flow measurements. Field measurements of streamflow were used in conjunction with PFAS concentrations at stations with positive detections of PFAS to compute instantaneous mass loading rates in units of grams per day.

Water Quality Correlation Matrix:

Correlation matrices for all surface water quality parameters collected on the inflowing tributaries and both public drinking water intakes were computed using the non-parametric Spearman Rank Correlation method at 95% and 99% confidence levels (i.e. $\alpha=0.05$ and $\alpha=0.01$) using the *corrplot* package built in R (Wei et al., 2017). Parameters with non-detections for all stations were excluded from analysis. Only correlation coefficients with p-values less than a significance level of $\alpha=0.05$ and $\alpha=0.01$ ($P[\rho]<\alpha$) for the respective matrices are shown.

SECTION C: Results & Discussion

C1: Analytical Surface Water Quality

Per- and Poly-Fluoroalkyl Substances (PFASs):

Surface water samples were collected at all stations listed in Table 1 and analyzed for the 25 PFAS target analytes listed in Table 6. Two additional surface water samples were collected and analyzed for PFASs at the Weiss Lake profiling stations (WL01 and WL02) at mid-depth and at one foot above the sediment. A total of 8 distinct PFASs were detected at one or more of the stations assessed during this study. These included perfluorooctanoic acid (PFOA), perfluorooctanesulfonate (PFOS), perfluorobutyric acid (PFBA), perfluorobutanesulfonate (PFBS), perfluoroheptanoic acid (PFHpA), perfluorohexanoic acid (PFHxA), perfluoropentanoic acid (PFPeA), and perfluorotetradecanoic acid (PFTeDA). At least one or more PFASs were detected at 5 of the 17 inflowing tributary sampling locations listed in Table 1 which included the Coosa River (CRI), Chattooga River (CHR), Spring Creek

(SPC), Cowan Creek (COC), and the un-named drainage adjacent to the Cherokee County Regional Airport (UNT1). At least one or more PFASs were also detected in surface water samples collected at both Weiss Lake outflows (CRO01 and CRO02), both lake profiling stations (WL01 and WL02), as well as the public drinking water intakes for the cities of Gadsden and Centre (G100 and C100).

There are currently no maximum contaminant levels (MCLs) established for PFASs nationally or for the states of Georgia and Alabama. The U.S. EPA has issued a Lifetime Health Advisory (LHA) level of 70 ng/L or ppt for combined and chemical-specific concentrations of the long-chain compounds PFOA and PFOS in drinking water. The Coosa River inlet (CRI) was the only site assessed in this study with combined concentrations of PFOA and PFOS detected above the EPA's LHA at 74 ng/L. Combined concentrations of PFOA and PFOS near the EPA's LHA were also detected at the City of Centre public drinking water intake (C100), the Coosa River Outlet (CRO01), and the Chattooga River (CHR) at levels of 69 ng/L, 64 ng/L, and 59 ng/L, respectively. Concentrations of 33 ng/L and 32 ng/L for PFOS alone were detected at the Gadsden public drinking water intake (G100) and the Weiss Lake Dam outflow (CRO02), respectively. PFOS was also detected at both lake profiling stations with concentrations ranging from 32 – 37 ng/L for WL01 and 24 – 33 ng/L for WL02.

The short-chain compound PFBS was the only PFAS constituent detected at COC and UNT1 at 44 ng/L and 36 ng/L, respectively. No PFASs were detected at or above the Minimum Reporting Limit (MRL) at stations MHC, KNC, CEC, BRB, MUC, LOB, YEC, WOC, LIR, UNT2, UNT3, or BNC.

A summary of detected PFASs and corresponding sampling stations are listed in Table 9 and shown in Figure 2. The "U" qualifier on tables and figures denotes that the analyte was not detected at or above the reporting limit. The "J" qualifier on tables and figures denotes that the identification of the analyte was deemed acceptable by the laboratory, but the reported value is an estimate. An accompanying "Q-2" qualifier denotes that the result was greater than the Minimum Detection Limit (MDL) but less than the MRL. The "Y-2" qualifier accompanying the estimate of PFTeDA detected in the duplicate sample at G100 denotes that estimates of this analyte should be used for screening purposes only. The complete analytical results, MRLs, and associated qualifiers for all analyses of PFASs are listed in Appendix A of this report. Detailed discussions of instantaneous PFAS mass loading rates, composition of detected PFAS contributions to Weiss Lake, and distribution of PFASs throughout the Weiss Lake water column can be found in Section C3 of this report.

Volatile Organic Compounds (VOCs):

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for the VOC target analytes listed in Table 4. Positive identifications of Toluene and (*m*- and/or *p*-) Xylene were detected in samples collected on the inflowing section of the Coosa River (CRI) at concentrations below the established MRLs, and were estimated at 0.2 ppb and 0.15 ppb, respectively. A positive identification of Toluene was also detected in samples collected on Wolf Creek (WOC) at levels below the established MRL and was estimated at 0.11 ppb. These results are greater than the MDLs but less than the MRLs for these analyses, thus the reported results are estimates. The identification of the reported analytes was deemed acceptable by the Laboratory Services Branch. The detected VOCs are summarized in Table 10. The analytical results, MRLs, and associated qualifiers for all analyses of VOCs are listed in Appendix B of this report.

Semi-Volatile Organic Compounds (SVOCs):

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for the SVOC target analytes listed in Table 3. A concentration of 14 ppb of (3- and/or 4-) Methylphenol, also known as *m*-Cresol and/or *p*-Cresol, was measured in samples collected on Mt. Hope Creek (MHC). Cresol is used for its antimicrobial and insecticidal properties in pesticides, pharmaceuticals, biotechnologies, and is a significant component in the manufacturing of Creosote. There are currently no national MCLs for *m*-Cresol and/or *p*-Cresol established by the U.S. EPA.

A positive identification of 1,4-Dioxane was detected in samples collected on Cedar Creek (CEC) below the established MRL and was estimated at 1.2 ppb. The result for 1,4-Dioxane on CEC was greater than the MDL but less than the MRL for this analyte, thus the reported result is an estimate. The identification of 1,4-Dioxane at CEC was deemed acceptable by the Laboratory Services Branch. The detected SVOCs are summarized in Table 10. The analytical results, MRLs, and associated qualifiers for all analyses of VOCs are listed in Appendix C of this report.

Polychlorinated Biphenyls (PCBs):

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for the PCB target analytes listed in Table 3. No PCBs were detected at or above the MRLs in any surface water samples collected during this study. The analytical results, MRLs, and associated qualifiers for all analyses of PCBs are listed in Appendix D of this report.

Total Metals:

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for a routine scan of total metals, of which the target analytes are listed in Table 2. The concentrations of detected metals are summarized in Table 10. The analytical results, MRLs, and associated qualifiers for all analyses of total metals are listed in Appendix E of this report.

Iron was detected above the National Secondary Drinking Water Standard (SDWR) for iron of 300 µg/L at the Kings Creek (KNC), Mt. Hope Creek (MHC), un-named tributary #1 (UNT1) and Big Nose Creek (BNC) sampling stations. Secondary drinking water standards are recommended guidelines prescribing non-enforceable limits for contaminants that may cause undesirable effects at or above those levels, such as taste, odor, visual aesthetics and/or water treatment issues. Additionally, iron was detected above the freshwater aquatic life chronic exposure limit (CEL) for iron of 1000 µg/L at the Mud Creek (MUC), un-named tributary #3 (UNT3), and Yellow Creek (YEC) sampling stations. At high concentrations in aerated waters iron can form precipitates that may be detrimental to benthic organisms and the health of fish and other aquatic life.

Manganese was also detected above the SDWR of 50 µg/L at 10 of the 17 inflowing tributary stations which included Chattooga River (CHR), Kings Creek (KNC), Mt. Hope Creek (MHC), Mud Creek (MUC), Big Nose Creek (BNC), Cowan Creek (COC), Wolf Creek (WOC), Yellow Creek (YEC), and un-named tributaries #1 and #3 (UNT1 and UNT3). Additionally, manganese was also detected above the SDWR of 50 µg/L at the Gadsden public drinking water intake (G100).

Nutrients:

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for the nutrient target analytes listed in Table 5. These analytes included ammonia as nitrogen, nitrate/nitrite as nitrogen, total phosphorus, sulfate, and Total Kjeldahl Nitrogen (TKN). The concentrations of detected nutrients are summarized in Table 10. The analytical results, MRLs, and associated qualifiers for all nutrient analyses are listed in Appendix F of this report.

The EPA has proposed ambient water quality aquatic life CELs for total phosphorus of 8 µg/L for rivers and streams, and 10 µg/L for lakes located within nutrient ecoregion XI, defined as the central and eastern forested uplands (USEPA, 2000*a*; USEPA, 2000*b*). Concentrations of total phosphorus were detected above the recommended CEL for rivers and streams at the public drinking water intake on the Coosa River in Gadsden (G100) and at 15 of the 17 inflowing tributary stations, which included Cedar Creek (CEC), Chattooga River (CHR), Coosa River inlet (CRI), Kings Creek (KNC), Mt. Hope Creek (MHC), Mud Creek (MUC), Spring Creek (SPC), un-named tributary #3 (UNT3), Big Nose Creek (BNC), Cowan Creek (COC), Locust Branch (LOB), un-named tributary #1 (UNT1), un-

named tributary #2 (UNT2), and Yellow Creek (YEC). Total phosphorus was also detected above the recommended CEL for lakes at the public drinking water intake for the City of Centre located on Lake Weiss (C100). The Chattooga River (CHR) had the highest concentrations of total phosphorus at 180 µg/L.

Classical Inorganics:

Surface water samples were collected at all inflowing tributaries and both public drinking water intakes listed in Table 1 and analyzed for the classical inorganic target analytes listed in Table 5. These analytes included chloride, total dissolved solids, total suspended solids, sulfate, and hardness calculated as calcium carbonate. The concentrations of detected classical inorganics are summarized in Table 10. The analytical results, MRLs, and associated qualifiers for all classical inorganic analyses are listed in Appendix G of this report.

C2. Field Measurements

Stream Flow Measurements:

Stream flow measurements for all inflowing and outflowing tributaries (Table 1) along with the method used (i.e. ADCP or ADV) are listed in Table 11. Flow measurements were collected via ADCP or ADV depending on the velocity, depth, and width of the stream. The flows measured in this study ranged from the lowest at 0.01 ft^3/s at the un-named tributary draining Centre Municipal Airport to the highest flow of 3583.21 ft^3/s on the inlet of the Coosa River. The outlets from Weiss Lake were measured at 337.74 ft^3/s at the overflow (CRO01) and 8516.13 ft^3/s at Weiss Lake Dam (CRO02). Alabama Power had released water to meet full electricity generation demands during the time flow measurements were being conducted at the Weiss Lake Dam site (CRO02). Due to flow regulation, the flow measured at CRO02 represents the maximum level and can fluctuate between no flow and the value measured, depending on the number of turbines being used. Flow measurements were not collected at Brushy Branch (BRB) and the un-named tributary draining the Cherokee County Regional Airport (UNT1) due to no observable flow present at the time of sampling. Flow measurements collected on Mud Creek (MUC), Locust Branch (LOB), Big Nose Creek (BNC), and the un-named tributaries draining the eastern and western areas surrounding the Centre Municipal Airport (UNT2 and UNT3) were outside standard quality assurance criteria for the methods used, thus the reported values in Table 11 are estimates. Lake levels were near full pool elevations during the period of sampling causing back-water effects and low velocity conditions on the shallow gradient tributaries flowing into the southern perimeter of Lake Weiss. Quality assurance criteria and flow measurement uncertainty for ADCP and ADV measurements are discussed in Section C.4 of this report.

In-Situ Water Quality:

Instantaneous measurements of temperature, pH, specific conductance, dissolved oxygen, and turbidity were collected at each inflowing and outflowing tributary station, including both public drinking water intakes, and are summarized in Table 12. The pH measurement collected at the Centre City public drinking water intake (C100) was 8.85 S.U., which is outside Alabama's freshwater ambient water quality criteria of 6 – 8.5 S.U. The elevated pH observed at C100 was most likely caused by high rates of photosynthesis, which can cause temporary increases in pH due to the uptake of dissolved carbon dioxide by primary producers. The *in-situ* measurement was collected at C100 at 13:38 in the afternoon during peak hours of solar irradiation and is further supported by the elevated concentration of dissolved oxygen (10.57 mg/L) likely resulting from photosynthesis. The dissolved oxygen concentration of 5.01 mg/L at Mud Creek (MUC) was near the lower limit of Georgia's ambient water quality criterion of 5 mg/L for warm freshwaters. This was most likely due to the low flow conditions and ponded wetland habitat observed upstream at MUC. Additionally, dissolved oxygen concentrations below Alabama's ambient water quality criteria for warm freshwaters

set at 5.5 mg/L, and 4 mg/L for extreme natural conditions, were also observed at the un-named tributaries draining the Cherokee County Regional Airport (UNT1) and Centre City Municipal Airport (UNT3) at 5.13 mg/L and 3.38 mg/L, respectively. The low levels of dissolved oxygen measured at UNT1 and UNT3 can also be attributed to low flow or stagnant conditions.

In-situ water quality measurements of temperature, pH, specific conductance and turbidity were collected at 2-foot intervals to construct profiles of the Weiss Lake water column at WL01 and WL02, which are summarized in Table 13. Measurements of pH collected near the surface were above Alabama's water quality criteria upper limit of 8.5 at both stations, ranging from 8.95 – 9.01 mg/L at WL01 and 8.58 – 8.80 mg/L at WL02. These observations are also consistent with high rates of photosynthesis supported by elevated levels of dissolved oxygen measured near the lake surface, ranging from 11.05 – 11.68 mg/L at WL01 and 9.87 – 10.80 mg/L at WL02. Dissolved oxygen concentrations below Alabama's lower limits for water quality criteria, ranging from 3.78 – 4.86 mg/L at WL01 and 5.22 – 5.41 mg/L at WL02 were observed at depths of 12 – 20 ft and 26 – 30 ft, respectively. The lower levels of dissolved oxygen measured at the near bottom depths at both lake profiling stations is attributed to lake stratification and is discussed further in Section C3.

C3. Computations & Analyses

Mass Loading Rates:

Mass loading rates were calculated in grams per day for all detected PFASs (e.g. PFOA, PFOS, PFBA, PFBS, PFHpA, PFHxA, and PFPeA), combined concentrations of PFOA and PFOS, and a summation of total PFASs for all corresponding tributaries. Computed mass loading rates and detected concentrations of PFASs are summarized in Figure 2.

The inflowing Coosa River (CRI) had the largest mass loading rate into the Weiss Lake system for both total PFASs and combined PFOA and PFOS, of 1902 g/day and 649 g/day, respectively. CRI also had the largest mass loading rates for all other individual compounds, except for PFPeA, which was found to be higher on the Chattooga River (CHR) despite having a significantly lower discharge. The Chattooga River was also found to be a significant contributor of PFASs to Weiss Lake, with computed mass loadings for total PFASs and combined PFOA and PFOS of 736 g/day and 73 g/day, respectively. Approximately 72% of the total inflowing PFASs were contributed by the Coosa River during the timeframe of the sampling event. However, the Chattooga River was found to contribute approximately 28% of the total inflowing PFASs into Weiss Lake with a discharge 86% lower than the main stem of the Coosa River.

Spring Creek (SPC) and Cowan Creek (COC) were also found to be minor contributors of total PFASs to Weiss Lake at 16 g/day and 1 g/day, respectively. Neither PFOA nor PFOS was detected at or above the MRL at SPC or COC. Spring Creek and Cowan Creek contributed less than 1% of the total PFAS input. PFBS was detected at the un-named tributary draining the Cherokee County Regional Airport (UNT1) at 36 ng/L (ppt). No discharge was observed at UNT1 during the time of the study, thus a mass loading rate was not calculated for this tributary.

The calculated mass loading of total PFASs and combined PFOA and PFOS to waters downstream of Weiss Lake due to releases from Weiss Lake Dam (CRO02) was 3250 g/day and 667 g/day, respectively. Additional downstream inputs were attributed to overflow into the former Coosa River channel at CRO01 with mass loadings of 159 g/day of total PFASs and 53 g/day of combined PFOA and PFOS. The mass loading rate calculated for CRO02 represents an approximate maximum which can undergo daily fluctuations between zero g/day and the value observed depending on demands for power generation and the surface water elevation of Weiss Lake.

The calculated mass loadings are flow driven due to the relatively small range of PFAS concentrations observed and represents an instantaneous snap-shot of the system. The computed mass loadings should not be interpreted as a true mass balance due to additional factors such as seasonal variability and potential sources or sinks outside the scope of

this study. The latter include adsorption or releases of PFASs from lake or riverine sediments, bioaccumulation into aquatic food chains and subsequent human and wildlife populations, and transformation of intermediate precursors into terminal PFAS endpoints.

PFAS Composition:

The composition of specific PFASs relative to the total PFAS concentration is summarized for each site in Figure 3. The 8 distinct compounds detected in this study belong to two separate classes which include perfluoroalkyl carboxylic acids (PFCAs) and perfluoroalkanesulfonic acids (PFSAs) with varying lengths of the associated carbon chains. The PFCAs detected in this study included the following compounds in decreasing order of carbon chain length; PFTeDA (C14), PFOA (C8), PFHpA (C7), PFHxA (C6), PFPeA (C5), and PFBA (C4). The PFSAs detected in this study included PFOS (C8) and PFBS (C4). Long-chain compounds of both PFCAs and PFSAs are considered public health priorities due to their increased residence times in humans and wildlife (CONCAWE, 2016). Both PFCAs and PFSAs have been used by industry as wetting, dispersing, emulsifying, and foaming agents to produce industrial and consumer products ranging from protective coatings for fabrics, carpets, textiles, and paper; as well as formulations of insecticides and surfactants (Wang et al., 2017).

All total of 7 distinct PFASs were detected in surface water samples collected on the Chattooga River (CHR). CHR had the highest diversity of PFASs of all the stations and largest summation of total PFAS concentrations. A total of 4 distinct compounds were detected on the Coosa River (CRI): PFOA, PFOS, PFBS, and PFPeA. Generally, the composition and relative concentrations observed in the Coosa River was reflective of those observed in the lake surface water samples (WL01 and WL02), both drinking water intakes (C100 and G100), and both Weiss Lake outflows (CRO01 and CRO02). PFBS was the most prevalent compound detected throughout the system followed by PFPeA and PFOS. Except for Spring Creek (SPC), PFBS was detected in all samples in which PFASs were found, and was the only compound detected at Cowan Creek (COC) and the un-named tributary draining Cherokee County Regional Airport (UNT1). PFBS and PFPeA are short-chain replacements for PFOS and PFOA, respectively (CONCAWE, 2016). PFOA was detected on both major tributaries (i.e. CRI and CHR) but was only detected at the Weiss Lake overflow (CRO02) and the City of Centre public drinking water intake (C100) suggesting a possible heterogenous distribution with the lake.

Lake Vertical Profiles:

Vertical profiles of the Weiss Lake water column were constructed for WL01 (i.e. near Centre public drinking water intake) and WL02 (near Weiss Lake Dam). The *in-situ* water quality profiles and corresponding concentrations of PFASs detected at the surface, mid-depth, and 1-ft above the lake bottom are visualized in Figures 4 and 5. The *in-situ* water quality measurements and detected PFAS concentrations are also tabulated in Tables 13 and 14, respectively. Profile estimations of turbidity in NTUs were calculated from the turbidimeter measurements collected at surface, mid-depth, and near bottom listed in Table 15, with the correlation curve between turbidimeter measurements and the turbidity probe (in FNUs) shown in Figure 6. Temperature slopes used to determine boundaries of thermocline layers (i.e. greater than 0.3 °C change in temperature per foot change in depth) are listed in Table 16.

PFOS was detected consistently throughout the water column at both profiling locations, ranging from 32 – 37 ng/L at WL01 and 24 – 33 ng/L at WL02. Additionally, PFBS and PFPeA were also detected throughout the water column at both profiling stations and PFHxA was detected at mid and bottom depths at WL01 only. PFBS concentrations decreased with depth from 93 to 79 ng/L at WL01 and increased with depth from 85 to 100 ng/L at WL02. A slight increase with depth in concentrations of PFPeA was observed at both stations, ranging from 40 to 60 ng/L for WL01 and 41 to 45 ng/L for WL02. Generally, no clear patterns between surface and bottom water concentrations of detected PFASs were determined and the concentrations observed should be considered relatively consistent throughout the water column.

Thermoclines were detected during *in-situ* profiling indicating that the lake was stratified during the time of sampling. The consistent concentrations of detected PFASs found in the separate water layers could suggest frequent turnover of the lake water column, releases from lake sediments, and/or precipitation of particulates containing adsorbed PFASs (e.g. suspended sediments and phytoplankton) from the epilimnion down through the metalimnion and hypolimnion.

Correlation Matrix:

Correlation matrices showing the Spearman rank correlation (ρ) between variables at significance levels of α=0.05 and α=0.01 are depicted in Figures 7 and 8, respectively. Spearman rank correlations with a p-value greater than the significance level ($P[\rho]>\alpha$) were deemed non-significant and are excluded from the associated matrices. The sign of the Spearman rank correlation refers to a positive or negative relationship between the corresponding variables. A statistically significant Spearman rank correlation means two variables are concordant (i.e. ordered in the same way) and does not directly indicate a causal relationship. Thus, statistically significant correlations shown in Figures 7 and 8 should be interpreted with caution.

Concentrations of total PFASs had the strongest relationship with PFPeA (ρ=0.88, p<0.01) followed by PFBS (ρ=0.87, p<0.01), PFOS (ρ=0.81, p<0.01), PFOA (ρ=0.73, p<0.01), and PFHxA (ρ=0.51, p<0.05). These correlations are reflective of the order of their prevalence throughout the Weiss Lake system as depicted in the comparison of PFAS compositions in Figure 3. Strong positive correlations observed between the majority of the individual PFASs may suggest common sources. The group of PFCAs detected only on the Chattooga River and Spring Creek (i.e. PFBA, PFHpA, and PFHxA) were correlated with PFOA and PFPeA but not with the two PFSA compounds (PFOS and PFBS). This may be due to statistical limitations of the data set caused by the large amount of non-detections.

Statistically significant correlations between PFASs and other water quality constituents included sulfate (SO_4), total phosphorus (TP), barium, potassium, sodium, and pH. The only statistically significant correlations observed at a significance level of α=0.01 were sulfate (SO_4) and total phosphorus (TP) with the strongest relationship occurring between sulfate and PFBS (ρ=0.67, p<0.01). No multicollinearity between sulfate and other water quality constituents was observed, suggesting that sulfate may be a strong predictor variable warranting further investigation. Elevated concentrations of PFASs, sulfate, and total phosphorus observed in the Chattooga River (CHR) relative to the other tributaries may be driving the correlations between these variables.

C4. Data Quality

Equipment Decontamination & Preparation:

All sampling containers were certified and managed in accordance with the LSASD Standard Operating Procedure for Equipment Inventory and Management (USEPA, 2017*a*). Equipment used for collecting samples to be analyzed for PFASs (i.e. stainless-steel buckets and HDPE tubing) were washed using Luminox® in warm tap water, rinsed with PFAS-free water, air-dried on clean plastic sheets and sealed in clean plastic in preparation for field use. Personnel were required to wear clean nitrile gloves during all processes of cleaning, handling, and packaging equipment. PFAS-free water was certified to be PFAS target analyte free and supplied by the LSASD laboratory in a clean HDPE container. Equipment rinse blank quality control samples were collected after the decontamination process for each type of equipment and for each lot of nitrile gloves used for sampling and submitted to the LSASD laboratory for analysis of PFAS target analytes for verification before field use. No PFAS target analytes were detected at or above the MRLs for any equipment rinse blank quality control samples and were therefore deemed acceptable within the scope of this study (Appendix H).

Field Sampling Quality Controls:

Field equipment rinse blank quality control samples were collected by rinsing each type of equipment (i.e. stainless-steel bucket and HDPE tubing) with PFAS-free water in the field, to evaluate PFAS inputs due to handling equipment in field conditions. Field blank quality control samples were also collected by transferring PFAS-free water into 15mL polypropylene vials in the field to evaluate the "clean-hands/dirty-hands" trace level sampling technique used for PFAS sample collection. Additionally, trip blank quality control samples provided by the LSASD laboratory were stored in each sample cooler for each batch, to account for PFAS and VOA inputs during sample storage and transport. No PFAS or VOA target analytes were detected at or above the MRLs for any field quality control samples and were therefore deemed acceptable for the scope of this study (Appendices A, B, and H).

Temperature blanks were placed inside each cooler and measured upon arrival to the LSASD laboratory. Due to the volume of samples collected, surface water samples were submitted to the LSASD laboratory in three separate batches. Temperature blanks accompanying sample batches received by the lab on May 22 and the morning of May 23 were recorded at 0.7°C and 1.0°C, respectively. The temperature blank stored with the third and last batch of samples submitted to the lab on the afternoon of May 23 was recorded above the 4.0°C threshold at 4.4°C. This minor deviation is deemed acceptable by the LSASD laboratory since these samples were collected on that same morning of May 23 and were still in the process of cooling.

A duplicate sample was collected on the inlet of the Coosa River (CRI) and submitted to the LSASD laboratory for analysis of all analytes targeted for this study (Tables 2 through 6). An additional duplicate sample was also collected at the Gadsden public drinking water intake (G100) and analyzed for the VOC and PFAS target analytes listed in Tables 4 and 6. The duplicate results for all detected analytes along with the calculated relative percent differences (RPDs) are listed in Tables 17 and 18 for CRI and G100, respectively.

In-Situ Water Quality Calibration & Verification:

Multi-parameter data sondes and turbidimeters used to collect *in-situ* water quality measurements were maintained, calibrated, and verified in accordance with the LSASD Standard Operating Procedures for *In-Situ* Water Quality Monitoring (USEPA, 2018*c*). Calibrations and end-check verifications performed on all parameters measured for the duration of the study were within the acceptable ranges in accordance with LSASD's Calibration and End-Check Acceptance Criteria (SESDFORM-060-R0).

Flow Measurement Uncertainty:

Slow velocities were observed on tributaries flowing into the southern perimeter of Weiss Lake due to a shallow surface water elevation gradient caused by high lake levels during the period of sampling. Shallow water depths, slow velocities, turbulent conditions, or a combination of these factors can significantly increase the uncertainty of acoustic measurements of open channel flow. LSASD field personnel were unable to collect stream flow measurements at Brushy Branch (BRB) and the un-named tributary draining Cherokee County Regional Airport (UNT1) due to extreme low flow conditions. Stream flow measurements collected at Mud Creek (MUC), Locust Branch (LOB), Big Nose Creek (BNC), and the unnamed tributaries draining the eastern and western edges of Centre Municipal Airport (UNT2 and UNT3) were outside acceptable quality criteria and are flagged with a "J" as these reported values are estimates (Table 11). Stream flow measurements collected on MUC, BNC, UNT2, and UNT3 were made via acoustic doppler velocimeter (ADV) and had total measurement uncertainties greater than 5%. Additionally, total flow measurements with repetitive discharge measurements below the recommended 10% were unattainable at BNC. Measurement of 4 replicate transects made via acoustic doppler current profiler (ADCP) with a recommended average difference in flow of less than 10% was unattainable on LOB.

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C5. Conclusions

At least one or more PFASs were detected at 11 of the 23 stations assessed during this study. A total of 8-distinct PFASs were positively identified in surface water samples collected in the Weiss Lake system and its supporting tributaries. Short-chain replacements for PFOA and PFOS (i.e. PFPeA and PFBS, respectively) were the most prevalent compounds detected during this study. The Coosa River flowing from the Georgia-Alabama state border had the highest instantaneous mass loading of both total PFASs (~72%) and combined PFOA and PFOS (~90%) during the time of this study. This was followed by the Chattooga River which comprised roughly a quarter of the total PFAS input to Weiss Lake with a flow 7 times lower than that of the Coosa River. The highest concentration of total PFASs and the most diverse composition, with 7-distinct compounds, were also observed on the Chattooga River. A combined concentration of PFOA and PFOS was detected above the U.S. EPA's Lifetime Health Advisory (LHA) of 70 ng/L on the inflowing Coosa River at 74 ng/L. Combined concentrations of PFOA and PFOS were also detected below but close to the Lifetime Health Advisory at the Centre City public drinking water intake, on the outflowing Coosa River, and the Chattooga River at 69 ng/L, 64 ng/L, and 59 ng/L, respectively. PFOS only was also identified at the outflowing Weiss Lake Dam and the Gadsden public drinking water intake. PFASs detected at the Weiss Lake profiling stations were found to be evenly distributed throughout the water column despite evidence that the lake was stratified during the sampling period. Computed correlation matrices indicate sulfate along with total phosphorus, barium, potassium, sodium, and pH as potential predictor variables for the presence of PFASs in this system and may warrant further investigation. The snap-shot of the Weiss Lake system provided by the instantaneous mass loadings derived from this study indicates that the Coosa and Chattooga Rivers are the most significant contributors of observed PFOA and PFOS concentrations to the receiving waters of Weiss Lake and associated public drinking water intakes in Centre City and Gadsden, Alabama. Furthermore, the relatively even distribution of detected PFASs throughout the stratified water column suggests inputs from both contaminated surface water and sediment may play important roles in the ambient PFAS concentrations observed in the lake. Background concentrations of PFASs associated with Weiss Lake sediments are currently unknown.

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Summary Tables

Table1: **List of Study Sites**

Station ID	Water Body	Coordinates (DD.ddddd)		Accuracy (ft)	Site Description
		Latitude	Longitude		
Inflowing Tributaries					
CRI	Coosa River	34.24836	-85.35549	± 9	Coosa River Inlet at HWY 100
MHC	Mt Hope Creek	34.24868	-85.40751	± 9	Mt. Hope Creek at Old River Road SW
KNC	Kings Creek	34.25098	-85.42037	± 9	Kings Creek at Old River Road SW
CEC	Cedar Creek	34.16565	-85.34383	± 11	Cedar Creek at HWY 100 Fosters Mill Rd
BRB	Brushy Branch	34.15523	-85.38097	± 10	Brushy Branch Dirt Rd off of Melso Rd SW
MUC	Mud Creek	34.16747	-85.43252	± 24	Mud Creek at George Rd SW RT 78
LOB	Locust Branch	34.13539	-85.53568	± 9	Boat in from RT 22 Crossing at Spring Creek
COC	Cowan Creek	34.10432	-85.57816	± 9	Cowan Creek at HWY 411
UNT1	Unkown Trib	34.10360	-85.58685	± 9	Unknown drainage Cherokee Cnty Regional Airport
YEC	Yellow Creek	34.22483	-85.74294	± 19	Yellow Creek at Rt 166
WOC	Wolf Creek	34.26297	-85.69529	± 20	Wolf Creek at HWY 273
LIR	Little River	34.28963	-85.68290	± 9	Little River Gorge National Preserve
UNT2	Unknown Trib	34.15657	-85.61710	± 10	Unknown drainage East of Centre Municipal Airport
UNT3	Unknown Trib	34.16302	-85.64527	± 21	Unknown drainage West of Centre Munipal Airport
CHR	Chattooga River	34.26362	-85.56017	± 9	Chattooga River at Canyon Dr
SPC	Spring Creek	34.27411	-85.62212	± 9	Spring Creek at RT 75
BNC	Big Nose Creek	34.16208	-85.66642	± 14	Big Nose Creek at Cedar Bluff Rd
Outflowing Tributaries					
CRO01	Coosa River	34.16927	-85.75093	± 9	Weiss Dam at Cherokee Cnty 7
CRO02	Coosa River	34.13106	-85.79328	± 9	Weiss Dam at Cherokee Cnty 20
Vertical Profiling Stations					
WL01	Weiss Lake	34.19927	-85.66869	± 16	Weiss Lake Profile Station Near Centre Intake Midlake
WL02	Weiss Lake	34.14568	-85.78841	± 9	Weiss Lake Profile Station Above Weiss Dam
Public Drinking Water Intakes					
C100	Centre City DW Intake	Redacted	Redacted	Redacted	Public drinking water for Centre City Alabama
G100	Gadsden DW Intake	Redacted	Redacted	Redacted	Public drinking water for Gadsden Alabama

Table 2: **List of Metals Analytes, Methods and MRLs**

Region IV Laboratory Routine Metals Target Analyte List Minimum Reporting Limits (MRLs) for Surface Water		
Analyte	**Method**	**MRL µg/L (ppb)**
Arsenic	EPA 200.8	0.5
Aluminum	EPA 6010C	100
Barium	EPA 6010C	5
Beryllium	EPA 6010C	3
Cadmium	EPA 200.8	0.25
Calcium	EPA 6010C	250
Cobalt	EPA 6010C	5
Chromium	EPA 6010C	5
Copper	EPA 6010C	10
Iron	EPA 6010C	100
Lead	EPA 200.8	0.5
Magnesium	EPA 6010C	250
Manganese	EPA 6010C	5
Molybdenum	EPA 6010C	10
Nickel	EPA 6010C	10
Potassium	EPA 6010C	1000
Selenium	EPA 200.8	1
Sodium	EPA 6010C	1000
Strontium	EPA 6010C	5
Silver	EPA 6010C	5
Tin	EPA 6010C	15
Titanium	EPA 6010C	5
Thallium	EPA 200.8	0.5
Vanadium	EPA 6010C	5
Yttrium	EPA 6010C	3
Zinc	EPA 6010C	10

Table 3: **List of Semi-VOA and PCB Analytes, Methods and MRLs**

Region IV Laboratory Semi-Volatile Organics and PCBs Analyte List Minimum Reporting Limits (MRLs) for Surface Water		
Analyte	**Method**	**MRL µg/L (ppb)**
1,1'-Biphenyl	EPA 8270D	2
2-Methylnaphthalene	EPA 8270D	2
Aroclor 1221	EPA 8082A	1
Aroclor 1232	EPA 8082A	1
Aroclor 1242	EPA 8082A	1
Aroclor 1016	EPA 8082A	1
Aroclor 1248	EPA 8082A	1
Aroclor 1254	EPA 8082A	1
Aroclor 1260	EPA 8082A	1
Aroclor 1262	EPA 8082A	1
Aroclor 1268	EPA 8082A	1

Table 4: **List of VOA Analytes, Method and MRLs**

Region IV Laboratory Volatile Organics Analyte List Minimum Reporting Limits (MRLs) for Surface Water		
Analyte	**Method**	**MRL µg/L (ppb)**
1,2-Dichlorobenzene	EPA 8260C	0.5
1,3-Dichlorobenzene	EPA 8260C	0.5
1,4-Dichlorobenzene	EPA 8260C	0.5
1,2,3-Trichlorobenzene	EPA 8260C	0.5
1,2,4-Trichlorobenzene	EPA 8260C	0.5

Table 5: **List of Nutrients and Classical Inorganic Analytes, Method and MRLs**

Region IV Laboratory Nutrients and Classical Inorganic Target Analyte List Minimum Reporting Limits (MRLs) for Surface Water		
Analyte	**Method**	**MRL mg/L (ppm)**
Ammonia	EPA 350.1	0.05
Chloride	EPA 300	0.1
Hardness, Calculated	SM 2340B	1.65
Nitrate	EPA 300.0/EPA 353.2	0.05
Nitrite	EPA 300.0/EPA 353.2	0.05
Phosphorus, Total	EPA 365.1	0.01
Total Dissolved Solids	USGS I-1750-85	40
Total Suspended Solids	USGS I-3765-85	4
Sulfate	EPA 300	0.1
Total Kjeldahl Nitrogen (TKN)	EPA 351.2	0.05

Table 6: **List of PFAS Analytes, Method and MRLs**

Region IV Laboratory Per - and Polyfluoroalkyl Substances (PFAS) Target Analyte List Minimum Reporting Limits (MRLs) for Surface Water			
Acronym [1]	Analyte [1]	Water [2] µg/L (ppb)	
		MDL	MRL
PFTeDA [3]	Perfluorotetradecanoic acid [3]	---	---
PFTrDA	Perfluorotridecanoic acid	0.039	0.040
PFDoA	Perfluorododecanoic acid	0.029	0.040
PFUDA	Perfluoroundecanoic acid	0.021	0.040
PFDA	Perfluorodecanoic acid	0.096	0.160
PFNA	Perfluorononanoic acid	0.016	0.040
PFOA	Perfluorooctanoic acid	0.026	0.040
PFHpA	Perfluoroheptanoic acid	0.014	0.040
PFHxA	Perfluorohexanoic acid	0.031	0.040
PFPeA	Perfluoropentanoic acid	0.018	0.040
PFBA	Perfluorobutyric acid	0.022	0.040
PFDS	Perfluorodecanesulfonate	0.032	0.039
PFNS	Perfluorononanesulfonate	0.015	0.038
PFOS	Perfluorooctanesulfonate	0.017	0.037
PFHpS	Perfluoroheptanesulfonate	0.017	0.038
PFHxS	Perfluorohexanesulfonate	0.017	0.036
PFPeS	Perfluoropentanesulfonate	0.013	0.038
PFBS	Perfluorobutanesulfonate	0.023	0.035
FOSA	Perfluorooctanesulfonamide	0.031	0.040
8:2 FTS	Fluorotelomer sulfonate 8:02	0.034	0.038
6:2 FTS	Fluorotelomer sulfonate 6:02	0.029	0.038
4:2 FTS	Fluorotelomer sulfonate 4:02	0.021	0.037
N-EtFOSAA [3]	N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine [3]	---	---
N-MeFOSAA	N-(Heptadecafluorooctylsulfonyl)-N-methylglycine	0.110	0.160
HFPO-DA	Hexafluoropropylene oxide–dimer acid	0.026	0.040

[1] PFAS analytes for both surface water and sediment/soil matrices are analyzed via the method outlined in LSBPROC-800-R1.

[2] PFAS analytes in surface water are analyzed using ASTM standard D7979-17.

[3] Surface water samples results for N-EtFOSAA and PFTeDA will be reported as estimates and should be used for screening purposes only.

Table 7: **Surface Water Sample Collection, Preservation and Holding Times**

Analyses	Container	Preservation	Holding Time
Metals + Hardness	1-liter Polyethylene	HNO_3 (pH < 2), Ice (≤ 4°C)	6 months
Semi-Volatile Organics + PCBs	2 x 1-liter Glass Amber	Ice (≤ 4°C)	47 days
Volatile Organics	3 x 40mL Glass Vial with Septum Seal	0.2 mL 1+1 HCL (pH < 2), Ice (≤ 4°C)	14 days
Nutrients (Nitrogen Series + Total P)	1-liter Polyethylene	H_2SO_4 (pH < 2), Ice (≤ 4°C)	28 days
Classicals (TSS, TDS, Cl-, & Sulfates)	1-liter Polyethylene	Ice (≤ 4°C)	7 days (solids) 28 days (Cl- + sulfates)
PFAS	2 x 15mL Polypropylene Vial	Ice (≤ 4°C)	42 days

Table 8: ***In-situ*** **Water Quality Measurement Uncertainty**

Parameter	Units	Technology	Measurement Uncertainty
pH	S.U.	Glass Electrode	± 0.2 SU
Dissolved Oxygen	mg/L	Luminescent DO Probe	± 0.2 mg/l ± 2% of reading (whichever is greater)
Temperature	°C	LDO Thermistor	± 0.2 °C
Specific Conductance	μS/cm	Nickel Electrode Cell	± 0.5% of reading
Turbidity	NTU or FNU	Portable Turbidimeter (EPA 180.2) Optical Probe (ISO 7027)	± 5% of reading

Table 9: Summary of Detected PFAS

Sampling Stations	Drinking Water Intakes			Lake Profile Sites		Outflowing		Inflowing					
	C100	G100	G100 (Dup)	WL01	WL02	CRO01	CRO02	CRI	CRI (Dup)	CHR	SPC	COC	UNT1
Date (m/dd/yyyy)	5/21/19	5/22/19	5/23/19	5/21/19	5/22/19	5/21/19	5/21/19	5/20/19	5/20/19	5/21/19	5/21/19	5/22/19	5/22/19
Time (hh:mm)	13:30	8:15	8:30	16:00	15:30	17:30	16:45	12:00	12:15	9:30	11:20	13:10	14:10
Detected Analytes	**Concentration in ng/L (ppt)**												
PFBA	U	U	U	U	U	U	U	U	U	46	U	U	U
PFBS	98	82	84	93	85	83	80	110	110	25 J,Q-2	U	44	36
PFHpA	U	U	U	U	U	U	U	U	U	26 J,Q-2	U	U	U
PFHxA	U	U	U	U	U	U	U	U	U	150	45	U	U
PFOA	27 J,Q-2	U	U	U	U	27 J,Q-2	U	34 J,Q-2	27 J,Q-2	37 J,Q-2	U	U	U
PFOS	42	33 J,Q-2	47	33 J,Q-2	24 J,Q-2	37	32 J,Q-2	40	25 J,Q-2	22 J,Q-2	U	U	U
PFPeA	51	42	37 J,Q-2	40	41	46	44	33 J,Q-2	28 J,Q-2	290	65	U	U
PFTeDA	U	U	37 J,Q-2,Y-2	U	U	U	U	U	U	U	U	U	U
Total PFAS	218	157	205	166	150	193	156	217	190	596	110	44	36
PFOA + PFOS [1,2]	**69**	**33**	**47**	**33**	**24**	**64**	**32**	**74**	**52**	**59**	**U**	**U**	**U**

Qualifiers:

U Analyte not detected at or above the reporting limit.

J The identification of the analyte is acceptable; the reported value is an estimate.

Q-2 Result greater than MDL but less than MRL.

Y-2 Data should be limited to screening purposes only.

Footnotes:

[1] Combined concentrations of PFOA + PFOS above the EPA LHA of 70 ng/L are highlighted in red.

[2] Combined concentrations of PFOA + PFOS near but below the EPA LHA of 70 ng/L are highlighted in yellow.

Table 10: Surface Water Chemistry - Summary of Detected Analytes

Analyte	Units	Standards		Aquatic Criteria		Surface Water Quality Sampling Stations																				
		MCL [1]	SDWR [1,5]	AEL [2]	CEL [2,3,6]	CEC	CHR	CRI	CRI (Dup)	KNC	LIR	MHC	MUC	SPC	UNT3	BNC	COC	LOB	UNT1	UNT2	WOC	YEC	BRB	C100	G100	G100 (Dup)
Ammonia as N	mg/L	---	30	17	1.9	U	U	U	U	U	U	U	U	U	0.098	0.059	U	0.05	U	U	U	U	U	U	U	---
Chloride	mg/L	---	---	860	230	2.9	7.8	3.6	3.5	1.6	1.1	3.3	2.1	1.4	7.6	5.5	4.7	2.9	7.3	11	2.1	2	2.6	3.9	4.1	---
Nitrate/Nitrite as N	mg/L	10	---	---	---	0.51	0.59	0.5	0.5	0.16	0.22	0.24	U	0.42	0.16	U	U	0.16	U	2.8	0.59	0.28	U	0.064	0.17	---
Sulfate as SO4	mg/L	---	250	---	---	2.2	29	13	8	3.3	3.9	2	1.2	1.3	2.8	2.6	5	3	6.5	2.4	4	3.3	16	6.2	6.2	---
Total Kjeldahl Nitrogen	mg/L	---	---	---	---	0.19 J,Q-2	0.34	0.26	0.23 J,Q-2	0.12 J,Q-2	0.13 J,Q-2	0.5	0.61	0.12 J,Q-2	0.97	0.7	0.54	0.36	0.67	0.22 J,Q-2	0.24 J,Q-2	0.29	0.34	0.42	0.4	---
Total Phosphorus	mg/L	---	---	---	0.008/0.01	0.026	0.18	0.039	0.039	0.01	U	0.034	0.023	0.012	0.093	0.036	0.046	0.024	0.11	0.014	U	0.012	U	0.034	0.042	---
Total Dissolved Solids	mg/L	---	500	---	---	110	180	83	67	81	U	130	120	100	130	130	87	110	120	93	U	U	170	62	63	---
Total Suspended Solids	mg/L	---	---	---	---	U	10	6.6	8.8	U	U	38	5.2	U	14	7.3	8.9	U	8.7	U	U	U	12	U	10	---
Hardness (as CaCO3)	mg/L	---	---	---	---	120	120	50	49	72	9.8	130	91	110	79	110	83	110	98	43	24	16	140	50	51	---
Aluminum	µg/L	---	200	Calc.	Calc.	U	U	U	U	U	U	140	100	U	120	U	U	U	180	U	U	U	110	U	U	---
Arsenic	µg/L	10	---	340	150	U	0.5	U	U	U	U	U	0.59	U	1.1	1.1	0.64	0.64	0.92	U	U	U	U	U	U	---
Barium	µg/L	2000	---	---	---	24	33	45	43	23	23	36	17	28	40	49	29	30	32	32	42	28	27	42	47	---
Calcium	µg/L	---	---	---	---	29000	36000	14000	14000	24000	2600	34000	28000	30000	25000	35000	24000	28000	31000	13000	7600	4100	44000	14000	14000	---
Iron	µg/L	---	300	---	1000	200	190	180	180	330	130	430	1300	130	1900	590	220	130	430	U	270	1200	200	230	110	---
Lead	µg/L	15	---	Calc.	Calc.	0.6	U	U	U	U	U	0.96	U	U	0.77	U	U	U	U	U	U	U	U	U	U	---
Magnesium	µg/L	---	---	---	---	12000	7400	3700	3600	3000	800	11000	5400	9600	4300	4700	5700	9900	5100	2800	1300	1500	7900	3600	3800	---
Manganese	µg/L	---	50	---	---	36	76	46	43	92	13	210	590	30	1800	220	140	36	140	U	80	68	30	25	60	---
Potassium	µg/L	---	---	---	---	U	1300	1300	1300	U	U	U	U	U	3800	2700	2000	1100	3100	1300	1200	U	1100	1400	1300	---
Sodium	µg/L	---	60000	---	---	2300	19000	5000	4800	1400	U	2300	4500	U	4900	4800	2800	1800	3200	3500	1300	1200	5700	4100	4000	---
Strontium	µg/L	---	---	---	---	27	59	47	46	61	12	42	140	33	110	130	80	67	110	69	27	18	220	46	45	---
(3-and/or 4-)Methylphenol	µg/L	---	---	---	---	U	U	U	U	U	U	14	U	U	U	U	U	U	U	U	U	U	U	U	U	---
1,4-Dioxane	µg/L	---	---	---	---	1.2 J,Q-2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	---
(m- and/or p-)Xylene	µg/L	10000	---	---	---	U	U	0.15 J,Q-2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	µg/L	1000	---	---	---	U	U	0.2 J,Q-2	0.1 J,Q-2	U	U	U	U	U	U	U	U	U	U	U	0.11 J,Q-2	U	U	U	U	U
Aquatic Criteria Calculated		Aluminum [4] (µg/L)			AEL	1900	1800	1300	1200	1100	1500	1300	970	870	890	1300	1400	1500	840	1500	430	350	1700	1300	1800	---
					CEL	1100	840	500	490	500	780	630	400	570	340	510	600	630	380	710	210	180	750	790	870	---
		Lead [2] (µg/L)			AEL	78.7	78.7	30.1	29.5	45.1	4.8	85.8	58.3	71.6	49.9	71.6	52.7	71.6	63.2	25.5	13.3	8.4	93.0	30.1	30.8	---
					CEL	3.07	3.07	1.17	1.15	1.76	0.19	3.34	2.27	2.79	1.95	2.79	2.05	2.79	2.46	0.99	0.52	0.33	3.62	1.17	1.20	---

Qualifiers:

U Analyte not detected at or above the reporting limit.

J The identification of the analyte is acceptable; the reported value is an estimate.

Q-2 Result greater than MDL but less than MRL.

Footnotes:

[1] MCLs and SDWRs are referenced from the 2018 Edition of the Drinking Water Standards and Health Advisories Tables (USEPA, 2018*d*).

[2] AELs and CELs are referenced from the National Recommended Water Quality Criteria - Aquatic Life Criteria Tables (USEPA, 2019*b*).

[3] EPA has proposed CELs for total phosphorus for rivers and streams (8 µg/L) and lakes (10 µg/L) located within nutrient ecoregion XI (USEPA, 2000*a*; USEPA, 2000*b*).

[4] AELs and CELs for Aluminum were calculated with EPA's Aluminum Criteria Calculator V2.0 (USEPA, 2019*a*) using site specific hardness, pH, with DOC set to 1 mg/L.

[5] Values above the Secondary Drinking Water Regulation (SDWR) are highlighted in yellow.

[6] Values above the CEL are highlighted in orange.

Table 11: **Summary of Stream Flow Measurements**

Station ID	Discharge (ft^3/s)	Width (ft)	Method
CRI	3583.21	354.9	ADCP
MHC	9.86	19.7	ADV
KNC	4.00	23.5	ADV
CEC	166.35	75.5	ADV
BRB	**NA**	---	---
MUC	0.06 **J-1**	2.5	ADV
LOB	19.40 **J-2**	61.9	ADCP
COC	9.92	60.7	ADCP
UNT1	**NA**	---	---
YEC	14.68	70.0	ADV
WOC	8.14	20.5	ADV
LIR	139.53	108.7	ADCP
UNT2	0.42 **J-1**	3.7	ADV
UNT3	0.01 **J-1**	2.3	ADV
CHR	504.99	198.0	ADCP
SPC	60.42	36.1	ADCP
BNC	0.03 **J-1**	16.0	ADV
CRO01	337.74	183.0	ADCP
CRO02	8516.13	276.1	ADCP

NA Flow measurement was unattainable with available equipment (e.g. velocity or depth too low)
J-1 Flow measurement is an estimate due to overall measurement uncertainty > 5%
J-2 Flow measurement is an estimate due to failure to obtain 4 consecutive transects with $\Delta Q < 10\%$

Table 12: **Summary of *In-Situ* Field Measurements**

Station ID	Date (m/dd/yyyy)	Time (hh:mm)	Temperature (°C)	pH [1] (S.U.)	Specific Conductance (µS/cm)	Dissolved [2,3,4] Oxygen (mg/L)	Turbidity (NTU)
CRI	5/20/2019	13:00	22.4	7.26	127	8.23	11
MHC	5/20/2019	14:55	19.4	7.51	255	8.54	21
KNC	5/20/2019	15:47	19.5	7.33	150	8.19	6
CEC	5/20/2019	12:55	21.7	7.95	241	8.71	4.4
BRB	5/23/2019	10:50	22.3	7.62	297	6.38	5.1
MUC	5/20/2019	16:26	26.6	7.09	198	5.01	13
LOB	5/22/2019	10:28	25.7	7.48	234	6.22	5
COC	5/22/2019	13:10	27.4	7.43	187	7.68	9.9
UNT1	5/22/2019	14:11	27.2	7.11	217	5.13	12
YEC	5/22/2019	11:19	21.3	6.71	46	8.28	8.5
WOC	5/22/2019	10:09	20.4	6.73	62	7.43	2.1
LIR	5/21/2019	13:40	23.7	7.68	30	8.94	0.85
UNT2	5/22/2019	16:25	22.6	7.58	122	8.94	3.5
UNT3	5/20/2019	18:33	22.3	6.87	192	[illegible]	36
CHR	5/21/2019	9:45	22.1	7.72	317	7.77	11
SPC	5/21/2019	11:28	17.7	7.59	221	9.00	4.6
BNC	5/22/2019	13:02	24.5	7.26	239	5.88	8.8
CRO01	5/21/2019	17:32	25.5	8.12	126	8.60	5.6
CRO02	5/21/2019	16:45	24.3	7.62	124	7.78	7.8
C100	5/21/2019	13:48	28.9	[illegible]	127	10.57	2.76
G100	5/22/2019	8:48	25.7	7.75	130	8.42	5.6

[1] pH above Alabama's ambient water quality criterion for freshwater of 8.5 S.U. is highlighted in red (ADEM, 2017).
[2] DO near Georgia's ambient water quality criterion for freshwater of 5 mg/L is highlighted in yellow (GADNR, 2016).
[3] DO below Alabama's ambient water quality criterion for freshwater of 5.5 mg/L is highlighted in orange (ADEM, 2017).
[4] DO below Alabama's ambient water quality criterion for freshwater under extreme conditions of 4 mg/L is highlighted in red (ADEM, 2017).

Table 13: **Summary of *In-Situ* Vertical Profile Measurements**

Profile Station ID: WL01				Date: 05/21/2019		
Depth (ft)	Time (hh:mm)	Temperature (°C)	pH [1] (S.U.)	Specific Conductance (µS/cm)	Dissolved [2,3] Oxygen (mg/L)	Turbidity (FNU)
0	15:33	28.4	8.97	125	11.05	-5.4
2	15:35	27.4	9.01	125	11.60	-4.9
4	15:36	26.4	9.00	126	11.68	-4.6
6	15:37	25.9	8.95	130	11.24	-4.7
8	15:40	24.9	8.15	129	8.11	-0.8
10	15:42	24.4	7.60	130	6.86	-0.3
12	15:44	22.8	7.22	127	4.86	-0.2
14	15:45	22.3	7.07	131	4.13	3.7
16	15:46	22.1	7.03	130	4.02	4.7
18	15:48	22.1	6.99	131	3.63	6.7
20	15:49	22.1	6.99	131	3.74	11.9
Profile Station ID: WL02				**Date: 05/22/2019**		
Depth (ft)	Time (hh:mm)	Temperature (°C)	pH [1] (S.U.)	Specific Conductance (µS/cm)	Dissolved [2] Oxygen (mg/L)	Turbidity (FNU)
0	14:58	26.9	8.80	125	10.80	-3.9
2	14:59	26.8	8.78	125	10.73	-3.7
4	15:01	26.5	8.71	124	10.43	-3.3
6	15:02	26.1	8.58	124	9.87	-2.7
8	15:03	24.5	7.62	125	7.38	-0.2
10	15:05	24.1	7.36	124	6.74	0.8
12	15:07	23.9	7.28	124	6.45	1.7
14	15:09	23.6	7.20	124	5.93	3.8
16	15:11	23.6	7.15	124	5.81	4.5
18	15:13	23.6	7.14	124	5.74	5.2
20	15:14	23.6	7.13	124	5.70	6.8
22	15:15	23.6	7.14	124	5.72	5.6
24	15:16	23.5	7.12	124	5.60	7.3
26	15:18	23.5	7.09	124	5.41	9.6
28	15:19	23.4	7.07	124	5.22	13.2
30	15:21	23.4	7.07	124	5.26	9.6

[1] pH above Alabama's ambient water quality criterion for freshwater of 8.5 S.U. is highlighted in red (ADEM, 2017).
[2] DO below Alabama's ambient water quality criterion for freshwater of 5.5 mg/L is highlighted in yellow (ADEM, 2017).
[3] DO below Alabama's ambient water quality criterion for freshwater under extreme conditions of 4 mg/L is highlighted in red (ADEM, 2017).

Table 14: **Vertical Profile of Detected PFASs**

Profile Station ID: WL01			Date: 05/21/2019			
Depth (ft)	Time (hh:mm)	PFBS [ppt]	PFHxA [ppt]	PFOS [ppt]	PFPeA [ppt]	Total PFAS [ppt]
0	16:00	93	U	33 J,Q-2	40	166
10	16:15	93	33 J,Q-2	32 J,Q-2	54	212
19	16:45	79	39 J,Q-2	37	60	215
Profile Station ID: WL02			Date: 05/22/2019			
Depth (ft)	Time (hh:mm)	PFBS [ppt]	PFHxA [ppt]	PFOS [ppt]	PFPeA [ppt]	Total PFAS [ppt]
0	15:30	85	U	24 J,Q-2	41	150
15	16:00	84	U	33 J,Q-2	42	159
30	16:15	100	U	29 J,Q-2	45	174

U Analyte not detected at or above the reporting limit.
J The identification of the analyte is acceptable; the reported value is an estimate.
Q-2 Result greater than MDL but less than MRL.

Table 15: **Turbidity Measurements in NTUs for Vertical Profiling Stations**

Profile Station ID: WL01			
Date (m/dd/yyyy)	Time (hh:mm)	Depth (ft)	Sample Turbidity (NTU)
5/21/2019	16:00	0	3.44
	16:15	10	8.2
	16:45	19	15
Profile Station ID: WL02			
Date (m/dd/yyyy)	Time (hh:mm)	Depth (ft)	Sample Turbidity (NTU)
5/22/2019	15:30	0	3.40
	16:00	15	9.7
	16:15	30	25

Table 16: **Temperature Rate of Change for Thermocline Determination**

Station: WL01	
Depth [1] (ft)	Temp. Slope (°C/ft)
0	---
2	0.5
4	0.5
6	0.25
8	0.5
10	0.25
12	0.8
14	0.25
16	0.1
18	0
20	0
Station: WL02	
Depth [1] (ft)	Temp. Slope (°C/ft)
0	---
2	0.05
4	0.15
6	0.2
8	0.8
10	0.2
12	0.1
14	0.15
16	0
18	0
20	0
22	0
24	0.05
26	0
28	0.05
30	0

[1] Depths within thermocline layers ($\Delta T/\Delta Z > 0.3$ °C/ft) are highlighted in yellow.

Table 17: **Relative Percent Difference (RPD) of Duplicate Samples Collected at CRI**

Analyte	Units	CRI	CRI (dup)	RPD (%)
Perfluorobutanesulfonate (PFBS)	ng/L	110	110	0.0
Perfluorooctanoic acid (PFOA)	ng/L	34 J,Q-2	27 J,Q-2	20.6
Perfluorooctanesulfonate (PFOS)	ng/L	40	25 J,Q-2	37.5
Perfluoropentanoic acid (PFPeA)	ng/L	33 J,Q-2	28 J,Q-2	15.2
Chloride	mg/L	3.6	3.5	2.8
Nitrate/Nitrite as N	mg/L	0.5	0.5	0.0
Sulfate as SO4	mg/L	13	8	38.5
Total Kjeldahl Nitrogen	mg/L	0.26	0.23 J,Q-2	11.5
Total Phosphorus	mg/L	0.039	0.039	0.0
Total Dissolved Solids	mg/L	83	67	19.3
Total Suspended Solids	mg/L	6.6	8.8	33.3
Hardness (as CaCO3)	mg/L	50	49	2.0
Barium	µg/L	45	43	4.4
Calcium	µg/L	14000	14000	0.0
Iron	µg/L	180	180	0.0
Magnesium	µg/L	3700	3600	2.7
Manganese	µg/L	46	43	6.5
Potassium	µg/L	1300	1300	0.0
Sodium	µg/L	5000	4800	4.0
Strontium	µg/L	47	46	2.1
(m- and/or p-)Xylene	µg/L	0.15 J,Q-2	U	100.0
Toluene	µg/L	0.2 J,Q-2	0.1 J,Q-2	50.0

U Analyte not detected at or above the reporting limit.
J The identification of the analyte is acceptable; the reported value is an estimate.
Q-2 Result greater than MDL but less than MRL.

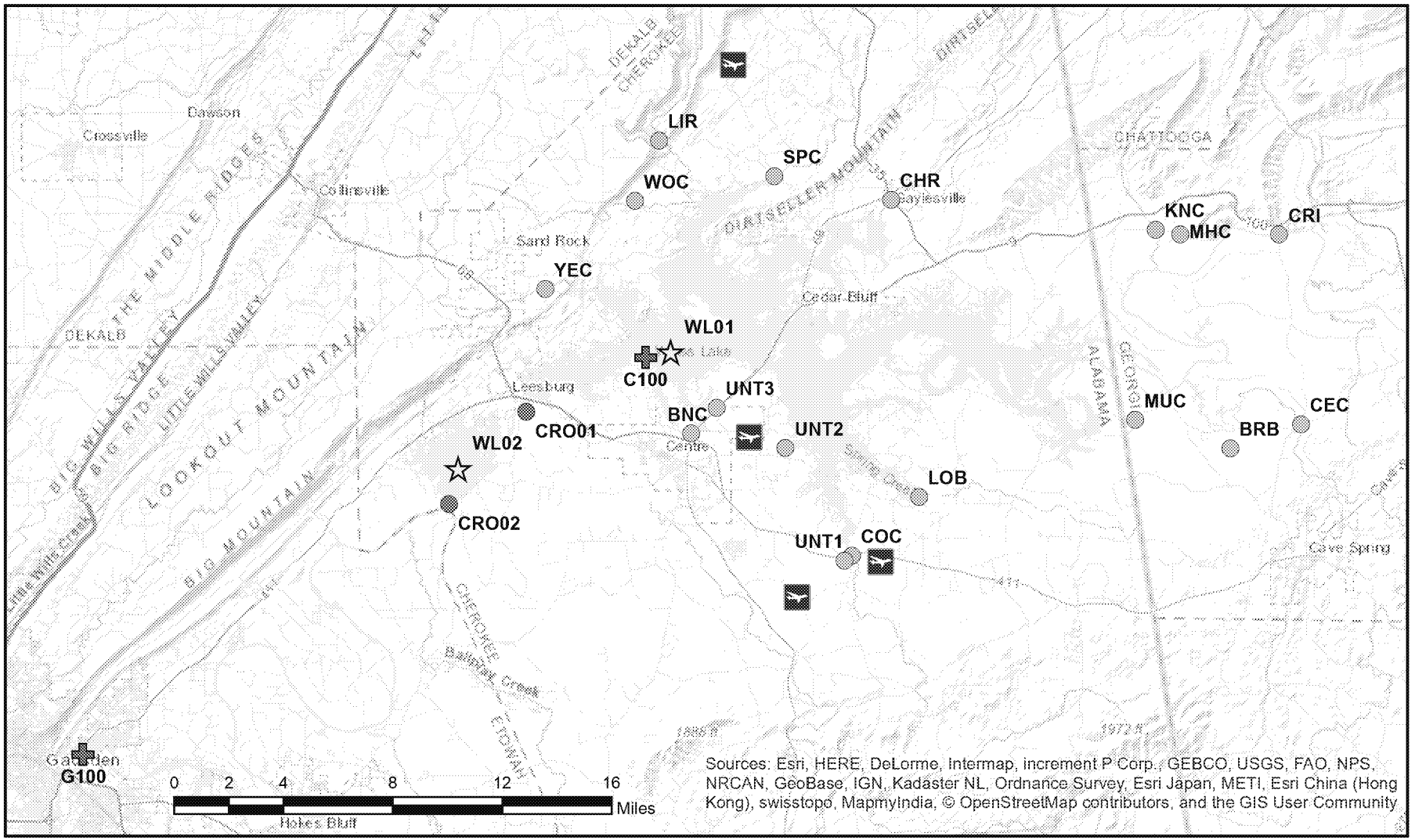
Table 18: **Relative Percent Difference (RPD) of Duplicate Samples Collected at G100**

Analyte	Units	G100	G100 (dup)	RPD (%)
Perfluorobutanesulfonate (PFBS)	ng/L	82	84	2.4
Perfluorooctanesulfonate (PFOS)	ng/L	33 J,Q-2	47	42.4
Perfluoropentanoic acid (PFPeA)	ng/L	42	37 J,Q-2	11.9
Perfluorotetradecanoic acid (PFTeDA)	ng/L	U	37 J,Q-2,Y-2	100.0

U Analyte not detected at or above the reporting limit.
J The identification of the analyte is acceptable; the reported value is an estimate.
Q-2 Result greater than MDL but less than MRL.
Y-2 Data should be limited to screening purposes only.

Summary Figures

Figure 1: Map of Sampling Locations



PFAS Phase 2:
Prioritization of PFAS Contributions to Weiss Lake
Sampling Locations

Legend
- Public DW Intakes
- Airports
- Inflowing Stations
- Profile Stations
- Outflowing Stations

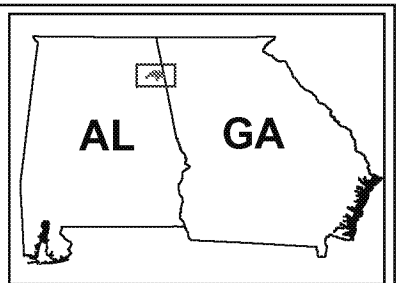
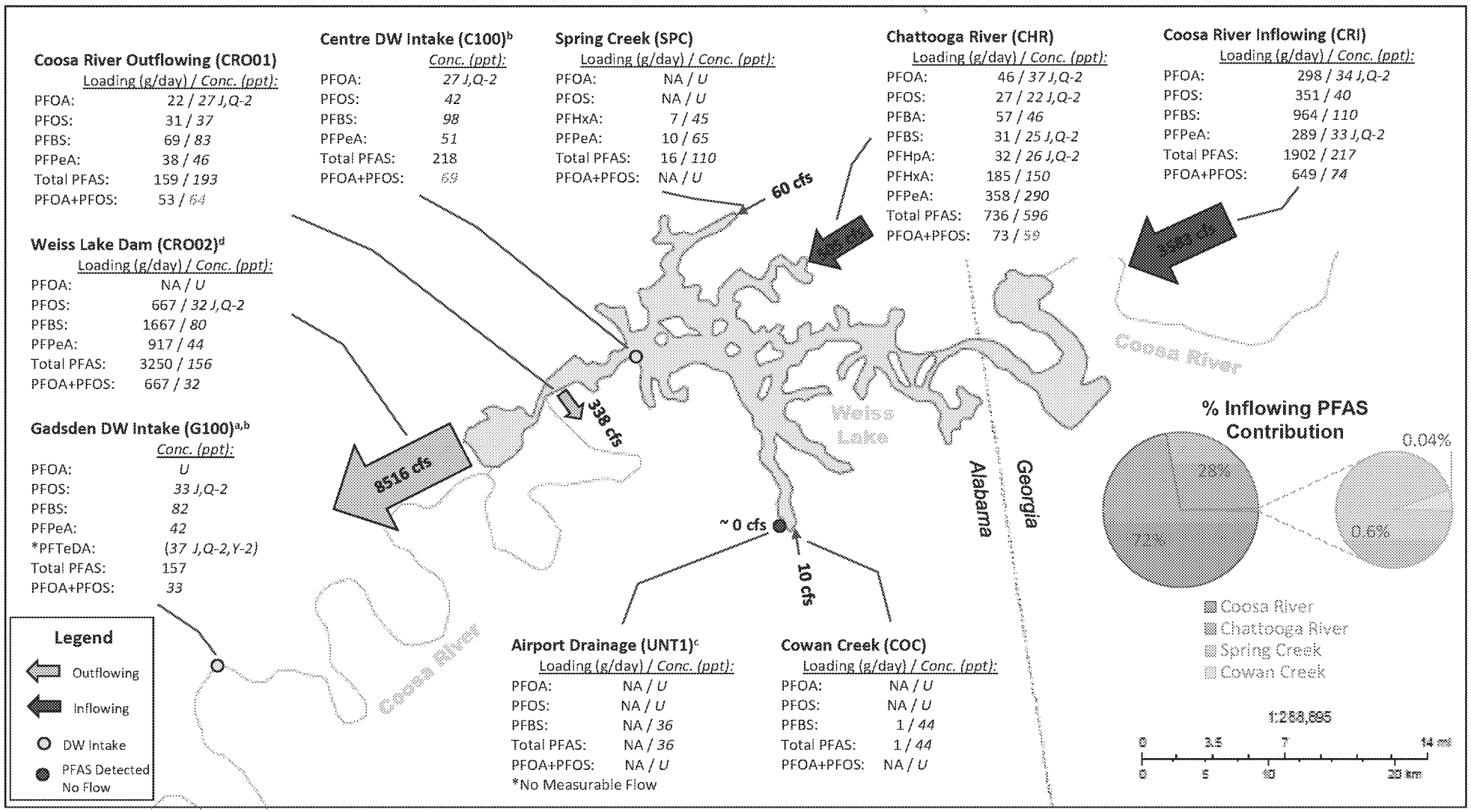


Figure 2: PFAS Mass Loading Rates



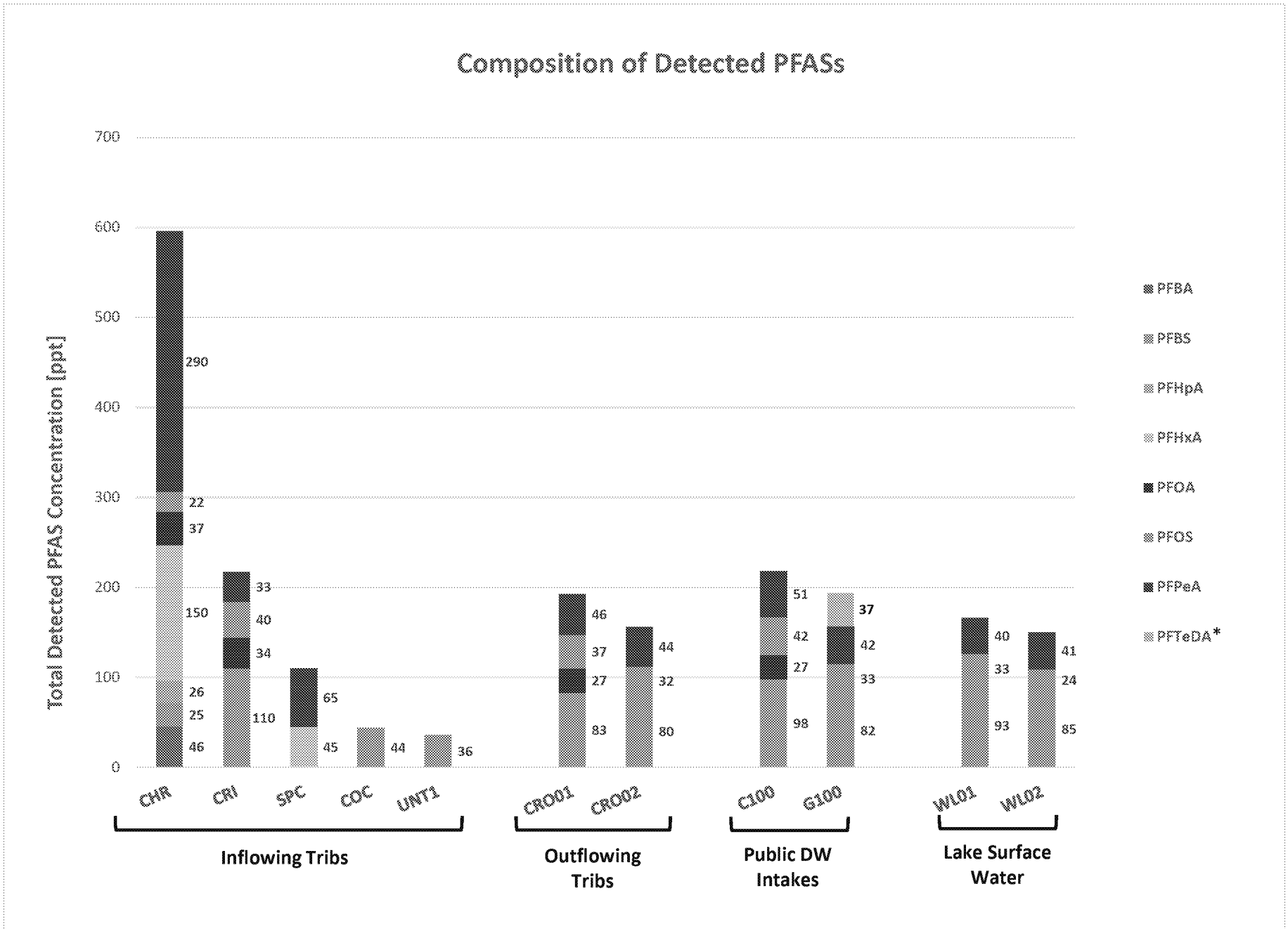
[a] PFTeDA was detected in a duplicate sample collected at G100. This value is an estimate and should be limited to screening purposes only.

[b] Flow was not measured at the drinking water intakes (i.e. C100 and G100). PFAS concentrations are reported only.

[c] No observable flow was present at UNT1 during the sampling period. PFAS mass loading rates for UNT1 were unattainable.

[d] Flow at Weiss Lake Dam was at maximum for power generation at the time of the study. This value represents a maximum between 0 cfs and ~8500 cfs depending on power demands.

Figure 3: **Percent Composition of PFASs**



* PFTeDA was detected in a duplicate sample collected at G100. This value is an estimate and should be limited to screening purposes only.

Figure 4: **Vertical Profile of WL01**

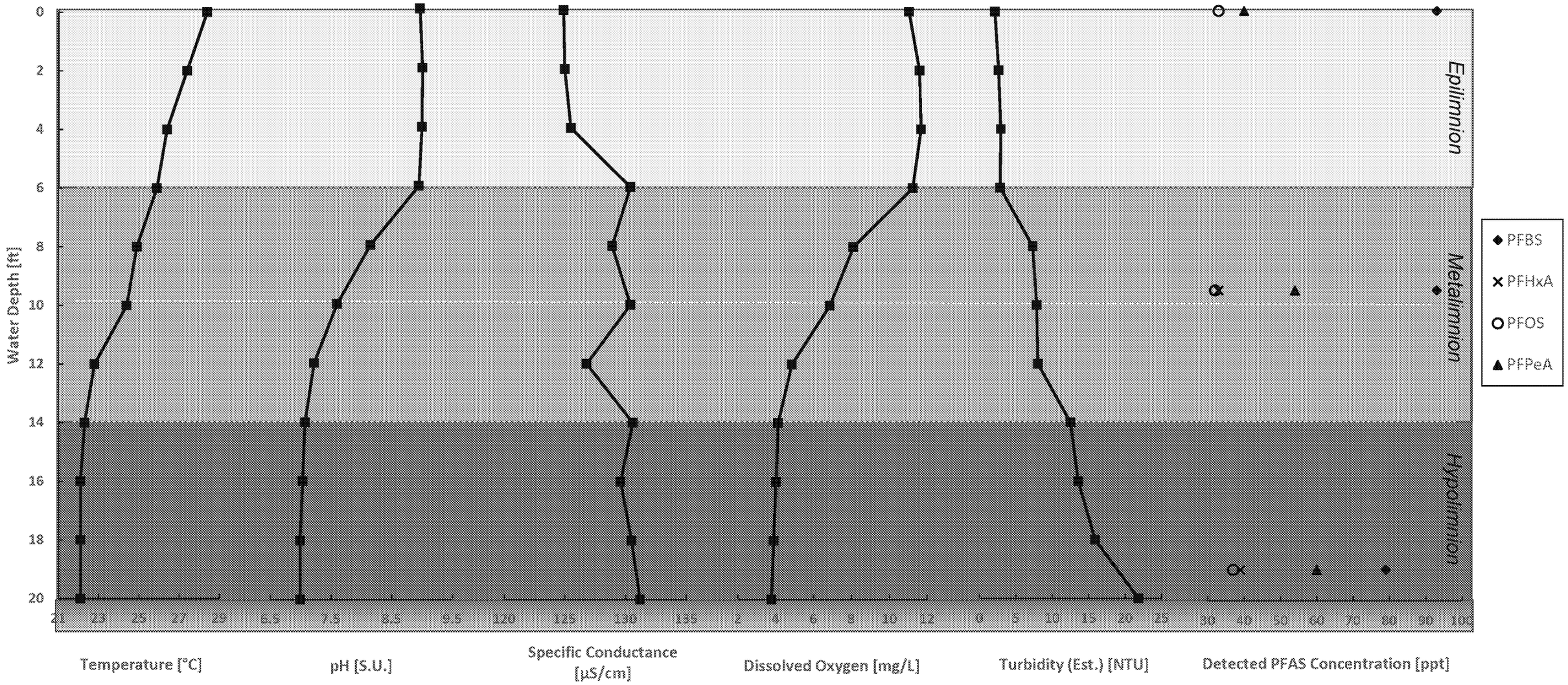


Figure 5: **Vertical Profile of WL02**

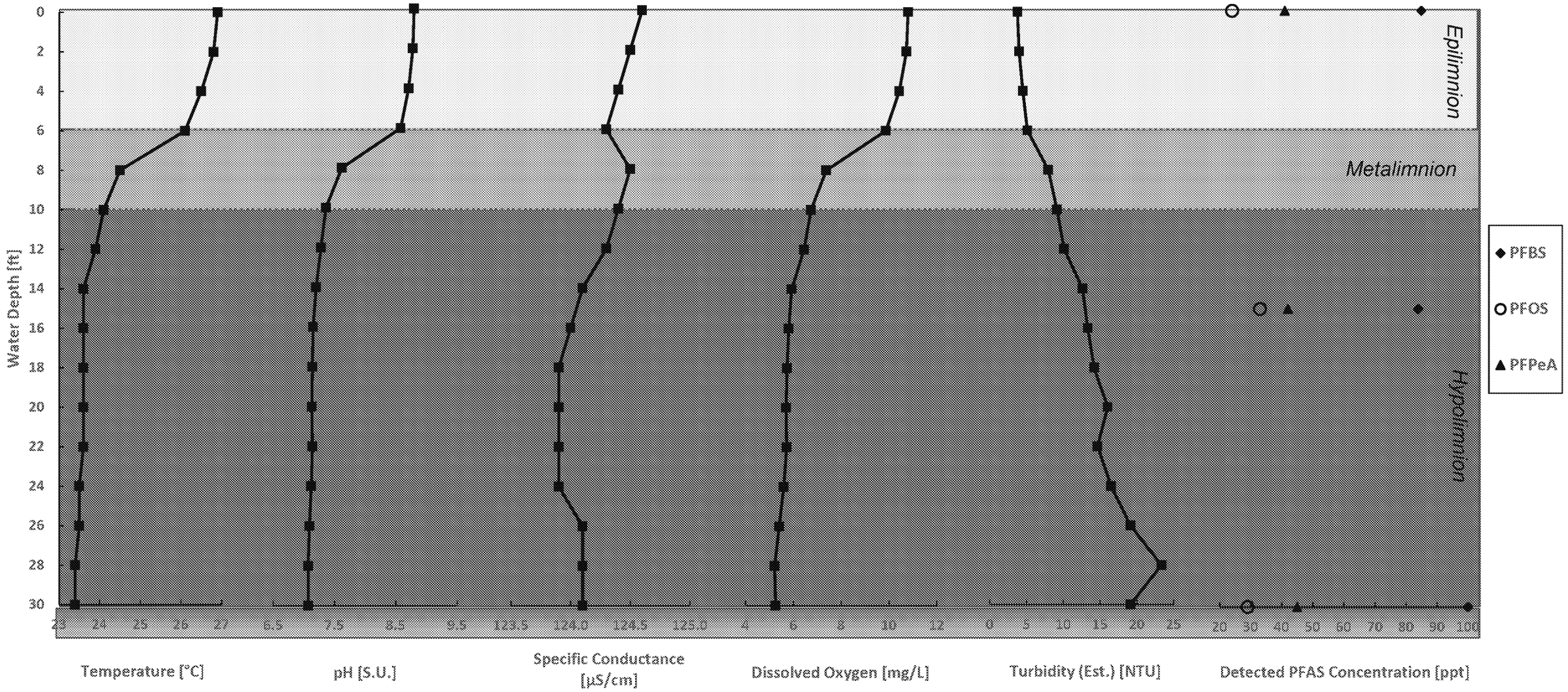


Figure 6: **Turbidity Correlation Curve & Trendline**

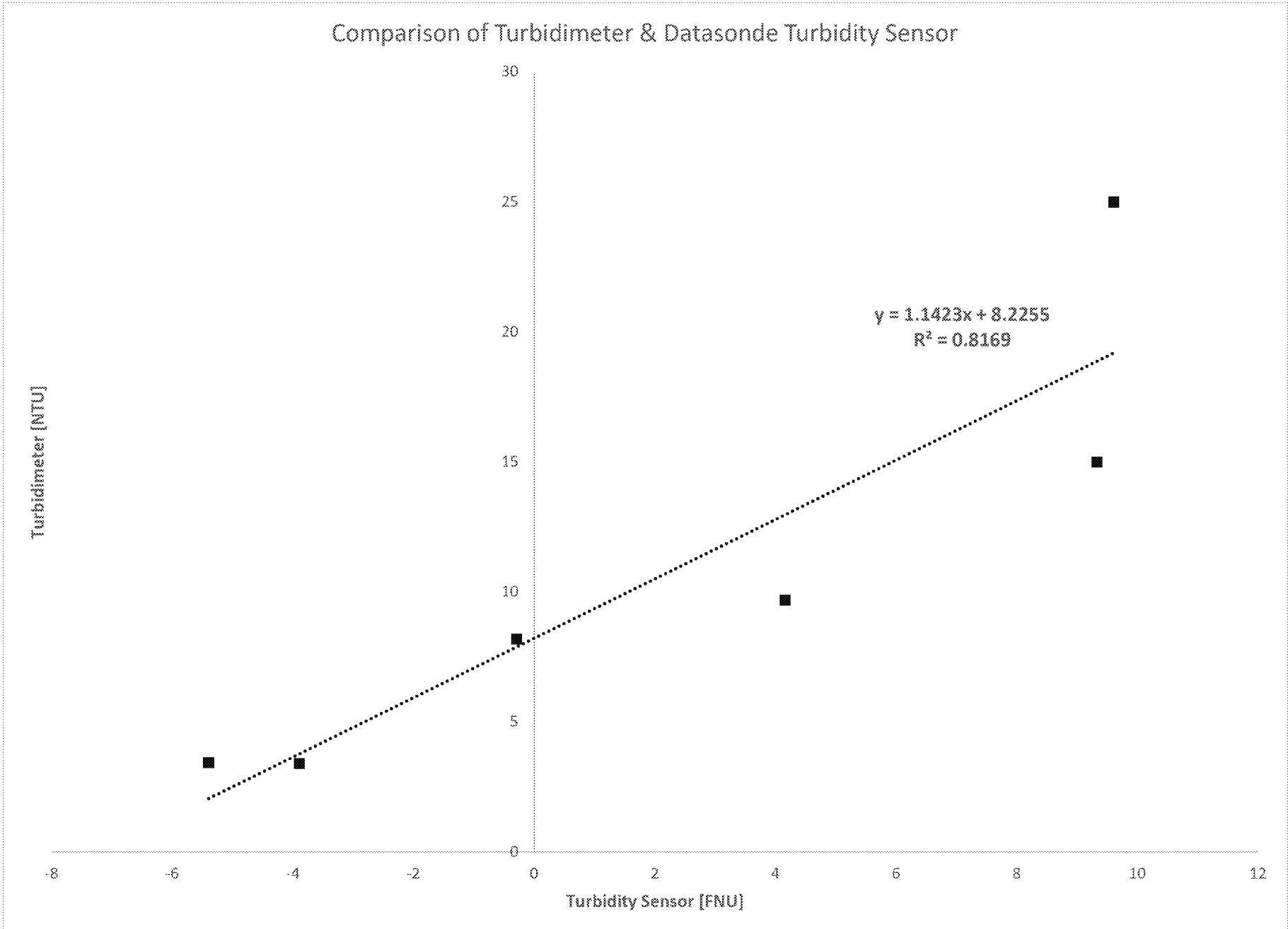


Figure 7: **Spearman Correlation Matrix (α=0.05)**

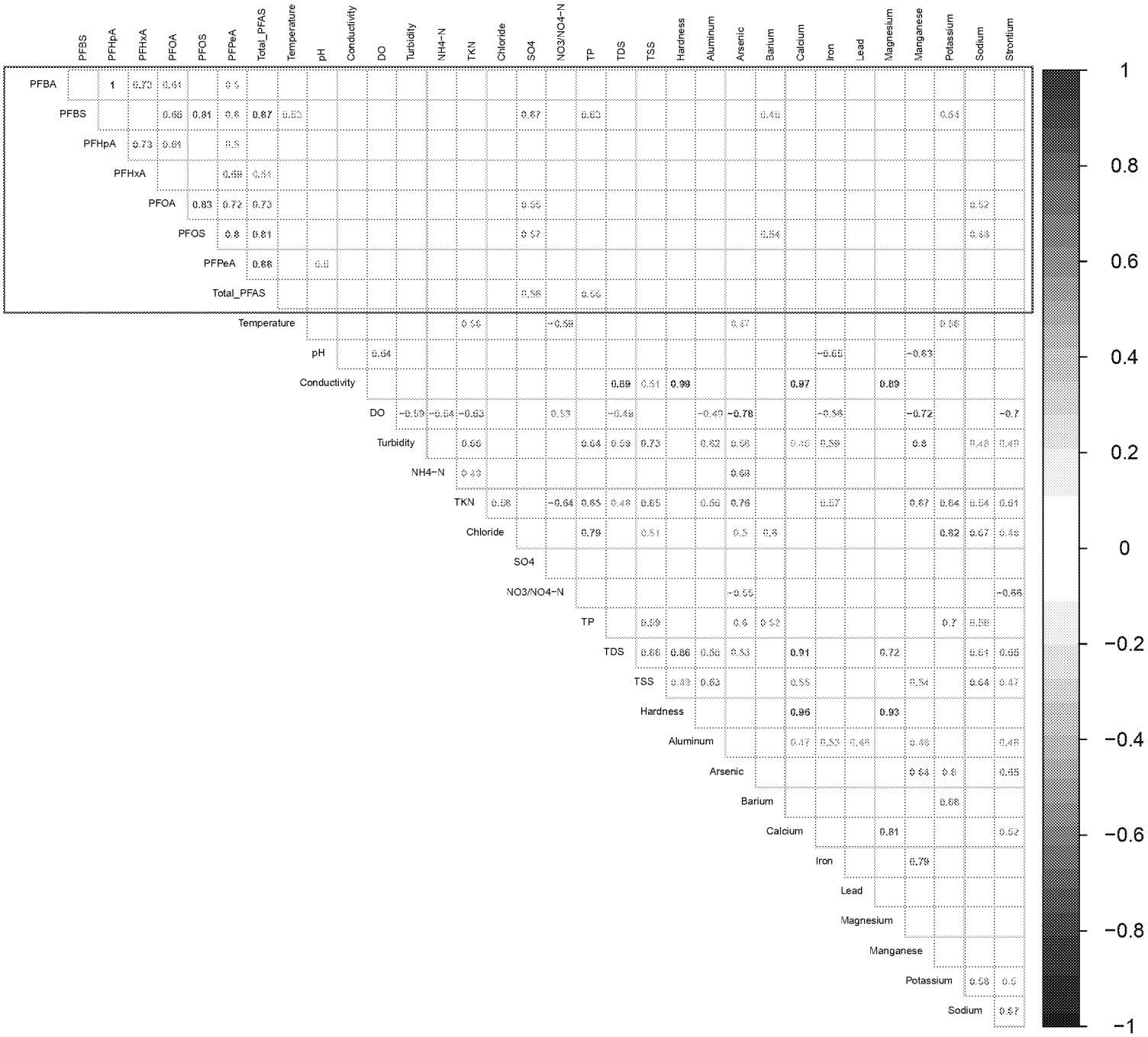
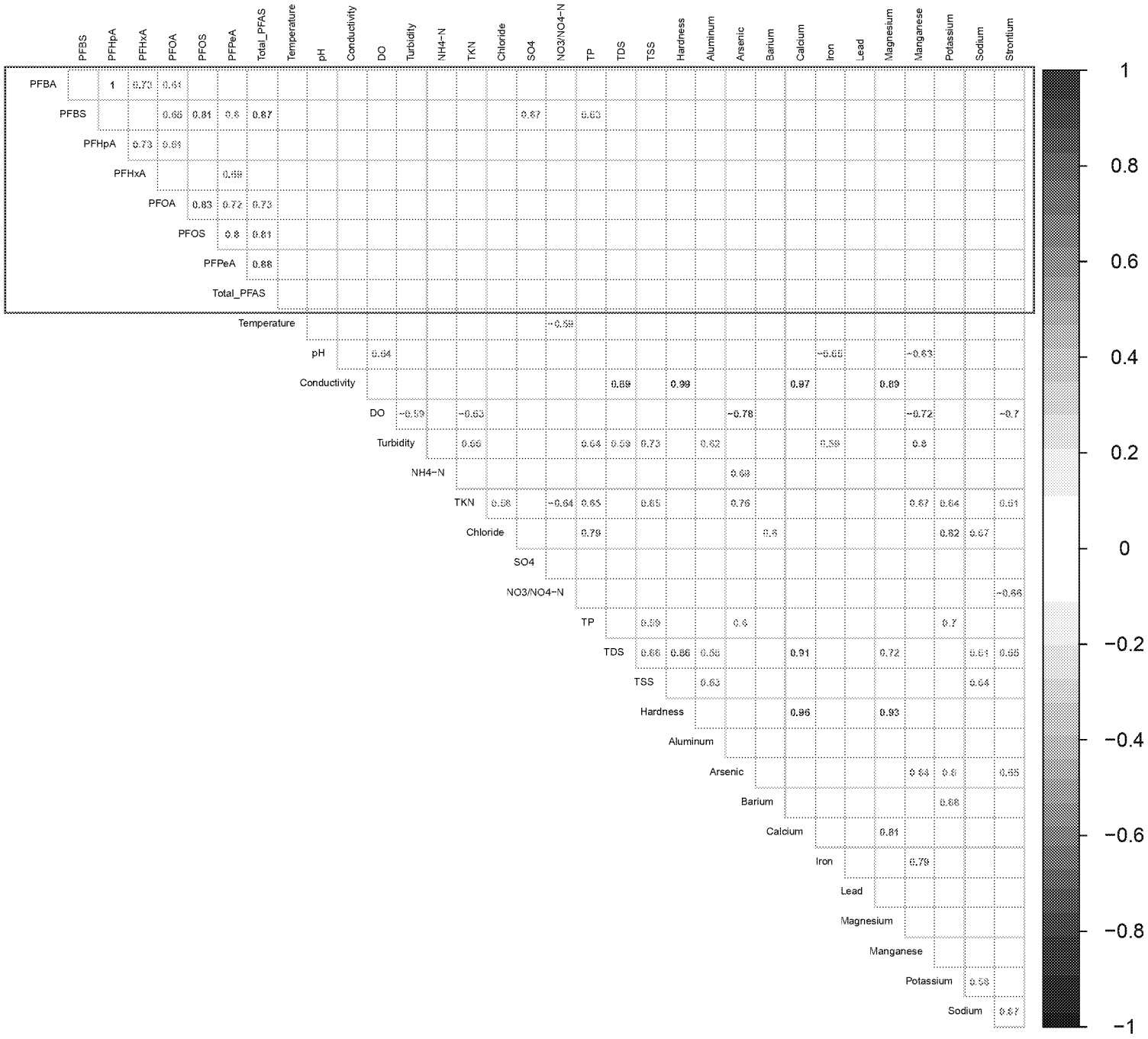


Figure 8: **Spearman Correlation Matrix (α=0.01)**



Appendix A – PFAS Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

July 24, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jeffrey Hendel
LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
PFAS	ASBPROC-800PFAS (Water)	

Report Narrative for Work Order: E192104 Analysis: SVOA

The compounds Perflurotetradecanoic acid (PFTeDA) and N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (N-EtFOSAA) were not reported with the original data since these two compounds do not meet the QA requirements of LSB's quality system. The project requested that these two compounds to be reported anyway. As a result, the data for the work order E192104 are being re-reported to contain results for these two compounds. The results for these two compounds are qualified "Y-2" (use for screening purposes only) since they do not meet LSB quality system requirements. The end user of the data should use the results for these two compounds with caution since the laboratory cannot defend the reported result. This report replaces E192104 SVOA FINAL 07 08 19 1438.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-Field-Blk-T1-1-0520	E192104-01	Field Blank	5/20/19 11:50	5/22/19 13:08
P2-Rinse-Blk-B-0520	E192104-02	Equipment Rinse Blank	5/20/19 11:50	5/22/19 13:08
P2-Trip-Blk-T2-1-0520	E192104-03	Trip Blank - Water	5/20/19 17:00	5/22/19 13:08
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-CEC-0520	E192104-05	Surface Water	5/20/19 12:30	5/22/19 13:08
P2-CHR-0520	E192104-06	Surface Water	5/21/19 09:30	5/22/19 13:08
P2-CRI-0520	E192104-07	Surface Water	5/20/19 12:00	5/22/19 13:08
P2-CRI-Dup-0520	E192104-08	Surface Water	5/20/19 12:15	5/22/19 13:08
P2-CRO01-0520	E192104-09	Surface Water	5/21/19 17:30	5/22/19 13:08
P2-CRO02-0520	E192104-10	Surface Water	5/21/19 16:45	5/22/19 13:08
P2-KNC-0520	E192104-11	Surface Water	5/20/19 15:45	5/22/19 13:08
P2-LIR-0520	E192104-12	Surface Water	5/21/19 13:45	5/22/19 13:08
P2-MHC-0520	E192104-13	Surface Water	5/20/19 14:40	5/22/19 13:08
P2-MUC-0520	E192104-14	Surface Water	5/20/19 16:15	5/22/19 13:08
P2-SPC-0520	E192104-15	Surface Water	5/21/19 11:20	5/22/19 13:08
P2-UNT3-0520	E192104-16	Surface Water	5/20/19 18:15	5/22/19 13:08
P2-WL01-Bot-0520	E192104-17	Surface Water	5/21/19 16:45	5/22/19 13:08
P2-WL01-Mid-0520	E192104-18	Surface Water	5/21/19 16:15	5/22/19 13:08
P2-WL01-Top-0520	E192104-19	Surface Water	5/21/19 16:00	5/22/19 13:08

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
QS-3	Surrogate recovery is lower than established control limits.
Y-2	Data should be limited to screening purposes only

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Field-Blk-T1-1-0520 **Lab ID:** E192104-01
Station ID: **Matrix:** Field Blank

Date Collected: 5/20/19 11:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
754-91-6	FOSA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
13252-13-6	HFPO-DA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
375-22-4	PFBA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
307-55-1	PFDoA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
375-85-9	PFHpA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
307-24-4	PFHxA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
375-95-1	PFNA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
335-67-1	PFOA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Field-Blk-T1-1-0520** **Lab ID:** **E192104-01**

Station ID: **Matrix:** **Field Blank**

Date Collected: 5/20/19 11:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
72629-94-8	PFTrDA	41	U, J, QC-1	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS
2058-94-8	PFUdA	41	U	ng/L	41	5/28/19 9:56	5/30/19 19:43	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Rinse-Blk-B-0520 **Lab ID:** E192104-02

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/20/19 11:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
27619-97-2	6:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
754-91-6	FOSA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
13252-13-6	HFPO-DA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
375-22-4	PFBA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
307-55-1	PFDoA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
375-85-9	PFHpA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
375-92-8	PFHpS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
307-24-4	PFHxA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
375-95-1	PFNA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
335-67-1	PFOA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
1763-23-1	PFOS	36	U	ng/L	36	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Rinse-Blk-B-0520** **Lab ID:** **E192104-02**

Station ID: **Matrix:** **Equipment Rinse Blank**

Date Collected: 5/20/19 11:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
72629-94-8	PFTrDA	39	U, J, QC-1	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS
2058-94-8	PFUdA	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:02	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T2-1-0520 **Lab ID:** E192104-03

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/20/19 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T2-1-0520 **Lab ID:** E192104-03

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/20/19 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:22	ASBPROC-800PFAS

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
375-73-5	PFBS	98		ng/L	35	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
335-67-1	PFOA	27	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
1763-23-1	PFOS	42		ng/L	37	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	51		ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 20:42	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05

Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, Y-2, QC-1, QL-1	ng/L	160	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:01	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
375-22-4	PFBA	46		ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
375-73-5	PFBS	25	J, Q-2	ng/L	35	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
375-85-9	PFHpA	26	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
307-24-4	PFHxA	150		ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
335-67-1	PFOA	37	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
1763-23-1	PFOS	22	J, Q-2	ng/L	37	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	290		ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:21	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
375-73-5	PFBS	110		ng/L	36	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
335-67-1	PFOA	34	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
1763-23-1	PFOS	40		ng/L	37	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	33	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 21:41	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
375-73-5	PFBS	110		ng/L	35	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
335-67-1	PFOA	27	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
1763-23-1	PFOS	25	J, Q-2	ng/L	37	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	28	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:00	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRO01-0520 **Lab ID:** E192104-09
Station ID: CRO01 **Matrix:** Surface Water

Date Collected: 5/21/19 17:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
375-73-5	PFBS	83		ng/L	35	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
335-67-1	PFOA	27	J, Q-2	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
1763-23-1	PFOS	37		ng/L	37	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRO01-0520 **Lab ID:** E192104-09

Station ID: CRO01 **Matrix:** Surface Water

Date Collected: 5/21/19 17:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	46		ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:20	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRO02-0520 **Lab ID:** E192104-10
Station ID: CRO02 **Matrix:** Surface Water

Date Collected: 5/21/19 16:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
375-73-5	PFBS	80		ng/L	36	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
1763-23-1	PFOS	32	J, Q-2	ng/L	37	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRO02-0520 **Lab ID:** E192104-10

Station ID: CRO02 **Matrix:** Surface Water

Date Collected: 5/21/19 16:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	44		ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 22:40	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
27619-97-2	6:2FTS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
754-91-6	FOSA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
13252-13-6	HFPO-DA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
375-22-4	PFBA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
307-55-1	PFDoA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
375-85-9	PFHpA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
375-92-8	PFHpS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
307-24-4	PFHxA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
375-95-1	PFNA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
335-67-1	PFOA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
1763-23-1	PFOS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11

Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
72629-94-8	PFTrDA	41	U, J, QC-1	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS
2058-94-8	PFUdA	41	U	ng/L	41	5/28/19 9:56	5/30/19 23:00	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS

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Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, Y-2, QC-1, QL-1	ng/L	160	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:19	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/30/19 23:39	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
27619-97-2	6:2FTS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
754-91-6	FOSA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
13252-13-6	HFPO-DA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
375-22-4	PFBA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
307-55-1	PFDoA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
375-85-9	PFHpA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
375-92-8	PFHpS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
307-24-4	PFHxA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
375-95-1	PFNA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
335-67-1	PFOA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
1763-23-1	PFOS	36	U	ng/L	36	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
72629-94-8	PFTrDA	39	U, J, QC-1	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS
2058-94-8	PFUdA	39	U	ng/L	39	5/28/19 9:56	5/30/19 23:59	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
307-24-4	PFHxA	45		ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15

Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	65		ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:18	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520
Station ID: UNT3
Lab ID: E192104-16
Matrix: Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16

Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:38	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Bot-0520 **Lab ID:** E192104-17
Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
375-73-5	PFBS	79		ng/L	36	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
375-85-9	PFHpA	40	U, J, QS-3	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
307-24-4	PFHxA	39	J	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
1763-23-1	PFOS	37		ng/L	37	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Bot-0520 **Lab ID:** E192104-17

Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	60		ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/31/19 0:58	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Mid-0520 **Lab ID:** E192104-18
Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
375-73-5	PFBS	93		ng/L	36	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
307-24-4	PFHxA	33	J, Q-2	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
1763-23-1	PFOS	32	J, Q-2	ng/L	37	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Mid-0520 **Lab ID:** E192104-18

Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	54		ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:17	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Top-0520 **Lab ID:** E192104-19
Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
375-73-5	PFBS	93		ng/L	35	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
1763-23-1	PFOS	33	J, Q-2	ng/L	37	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL01-Top-0520 **Lab ID:** E192104-19

Station ID: WL01 **Matrix:** Surface Water

Date Collected: 5/21/19 16:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40		ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QC-1, QL-1, Y-2	ng/L	160	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U, J, QC-1	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/28/19 9:56	5/31/19 1:37	ASBPROC-800PFAS

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905121 - S PFC										
Blank (1905121-BLK1)				Prepared: 05/28/19 Analyzed: 05/30/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QC-1, QL-1, Y-2, U
PFTrDA	U	40	"							QC-1, U
PFUdA	U	40	"							U
Blank (1905121-BLK2)				Prepared: 05/28/19 Analyzed: 05/30/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905121 - S PFC										
Blank (1905121-BLK2)				Prepared: 05/28/19 Analyzed: 05/30/19						
PFDA	U	160	ng/L							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QC-1, QL-1, Y-2, U
PFTrDA	U	40	"							QC-1, U
PFUdA	U	40	"							U
LCS (1905121-BS1)				Prepared: 05/28/19 Analyzed: 05/30/19						
ASBPROC-800PFAS										
4:2FTS	339	37	ng/L	374.00		90.7	67.1-125			
6:2FTS	338	38	"	380.00		88.8	49.2-134			
8:2FTS	305	38	"	384.00		79.6	56.4-136			
FOSA	309	40	"	400.00		77.1	57.7-148			
HFPO-DA	338	40	"	400.00		84.6	51.1-127			
N-EtFOSAA	332	160	"	400.00		83.0	47.2-185.3			Y-2
N-MeFOSAA	364	160	"	400.00		91.0	43.2-178			
PFBA	327	40	"	400.00		81.6	67.9-118			
PFBS	311	35	"	354.00		87.8	68.2-118			
PFDA	362	160	"	400.00		90.4	47.4-162			
PFDoA	349	40	"	400.00		87.3	56.5-155			
PFDS	318	39	"	386.00		82.4	35.1-168			
PFHpA	365	40	"	400.00		91.2	72.8-116			
PFHpS	325	38	"	380.00		85.5	59.7-130			
PFHxA	343	40	"	400.00		85.7	62.6-127			
PFHxS	319	36	"	364.80		87.4	69.5-117			
PFNA	365	40	"	400.00		91.1	64.1-128.4			
PFNS	302	38	"	384.00		78.6	63.3-126			
PFOA	372	40	"	400.00		93.0	66.7-122			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905121 - S PFC										
LCS (1905121-BS1)				Prepared: 05/28/19 Analyzed: 05/30/19						
PFOS	324	37	ng/L	370.20		87.4	70.4-122			
PFPeA	338	40	"	400.00		84.6	72-115			
PFPeS	333	38	"	376.00		88.6	69-117			
PFTeDA	143	160	"	400.00		35.6	42.9-179			Q-2, QC-1, QL-1, Y-2, J
PFTrDA	310	40	"	400.00		77.6	32.2-215			QC-1
PFUdA	356	40	"	400.00		89.1	65.8-142			
Matrix Spike (1905121-MS1)		**Source: E192104-12**		Prepared: 05/28/19 Analyzed: 05/31/19						
ASBPROC-800PFAS										
4:2FTS	310	37	ng/L	395.35	U	78.4	70-133			
6:2FTS	325	38	"	401.69	U	80.9	58-143			
8:2FTS	336	38	"	405.92	U	82.9	66-126			
FOSA	319	40	"	422.83	U	75.4	61-138			
HFPO-DA	286	40	"	422.83	U	67.7	45-129			
N-EtFOSAA	311	160	"	422.83	U	73.4	50-168			Y-2
N-MeFOSAA	319	160	"	422.83	U	75.4	47-169			
PFBA	294	40	"	422.83	U	69.5	60-141			
PFBS	303	35	"	374.21	U	81.0	62-135			
PFDA	350	160	"	422.83	U	82.8	53-156			
PFDoA	318	40	"	422.83	U	75.2	30-172			
PFDS	257	39	"	408.03	U	63.0	44-151			
PFHpA	342	40	"	422.83	U	81.0	75-122			
PFHpS	331	38	"	401.69	U	82.5	66-132			
PFHxA	338	40	"	422.83	U	79.8	64-138			
PFHxS	306	37	"	385.62	U	79.3	72-124			
PFNA	344	40	"	422.83	U	81.3	72-129			
PFNS	288	38	"	405.92	U	70.9	61-126			
PFOA	343	40	"	422.83	U	81.2	74-127			
PFOS	272	37	"	391.33	U	69.5	68-132			
PFPeA	319	40	"	422.83	U	75.5	75-122			
PFPeS	314	38	"	397.46	U	78.9	72-122			
PFTeDA	142	160	"	422.83	U	33.5	10-194			QC-1, Y-2, Q-2, J
PFTrDA	231	40	"	422.83	U	54.7	10-193			QC-1
PFUdA	342	40	"	422.83	U	80.8	44-164			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905121 - S PFC										
Matrix Spike Dup (1905121-MSD1)		**Source: E192104-12**		Prepared: 05/28/19 Analyzed: 05/31/19						
ASBPROC-800PFAS										
4:2FTS	303	37	ng/L	356.87	U	84.8	70-133	2.37	34	
6:2FTS	328	38	"	362.60	U	90.3	58-143	0.794	45	
8:2FTS	281	38	"	366.41	U	76.7	66-126	18.0	56	
FOSA	303	40	"	381.68	U	79.5	61-138	4.95	39	
HFPO-DA	258	40	"	381.68	U	67.6	45-129	10.3	57	
N-EtFOSAA	308	160	"	381.68	U	80.7	50-168	0.769	53	Y-2
N-MeFOSAA	299	160	"	381.68	U	78.5	47-169	6.21	65	
PFBA	277	40	"	381.68	U	72.4	60-141	6.10	37	
PFBS	282	35	"	337.79	U	83.4	62-135	7.24	32	
PFDA	325	160	"	381.68	U	85.0	53-156	7.52	57	
PFDoA	297	40	"	381.68	U	77.7	30-172	6.98	56	
PFDS	274	39	"	368.32	U	74.5	44-151	6.60	66	
PFHpA	327	40	"	381.68	U	85.6	75-122	4.62	26	
PFHpS	308	38	"	362.60	U	85.0	66-132	7.22	28	
PFHxA	322	40	"	381.68	U	84.3	64-138	4.82	42	
PFHxS	299	37	"	348.09	U	85.9	72-124	2.23	32	
PFNA	327	40	"	381.68	U	85.7	72-129	5.01	31	
PFNS	279	38	"	366.41	U	76.1	61-126	3.29	35	
PFOA	331	40	"	381.68	U	86.6	74-127	3.83	32	
PFOS	282	37	"	353.24	U	79.8	68-132	3.58	37	
PFPeA	312	40	"	381.68	U	81.8	75-122	2.28	27	
PFPeS	314	38	"	358.78	U	87.5	72-122	0.0785	29	
PFTeDA	149	160	"	381.68	U	39.0	10-194	5.03	111	Q-2, QC-1, Y-2, J
PFTrDA	255	40	"	381.68	U	66.8	10-193	9.68	106	QC-1
PFUdA	320	40	"	381.68	U	83.8	44-164	6.53	48	
MRL Verification (1905121-PS1)				Prepared: 05/28/19 Analyzed: 05/30/19						
ASBPROC-800PFAS										
4:2FTS	29.2	37	ng/L	37.400		78.1	47.1-145			MRL-2, Q-2, J
6:2FTS	27.9	38	"	38.000		73.5	29.2-154			MRL-2, Q-2, J
8:2FTS	33.7	38	"	38.400		87.9	36.4-156			MRL-2, Q-2, J
FOSA	29.4	40	"	40.000		73.6	37.7-168			MRL-2, Q-2, J
HFPO-DA	29.7	40	"	40.000		74.1	31.3-147			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905121 - S PFC										
MRL Verification (1905121-PS1)				Prepared: 05/28/19 Analyzed: 05/30/19						
PFBA	28.7	40	ng/L	40.000		71.7	47.9-138			MRL-2, Q-2, J
PFBS	26.3	35	"	35.400		74.3	48.2-138			MRL-2, Q-2, J
PFDoA	34.2	40	"	40.000		85.4	36.5-175			MRL-2, Q-2, J
PFDS	22.7	39	"	38.600		58.8	15.1-188			MRL-2, Q-2, J
PFHpA	27.7	40	"	40.000		69.2	52.8-136			MRL-2, Q-2, J
PFHpS	30.3	38	"	38.000		79.7	39.7-150			MRL-2, Q-2, J
PFHxA	28.4	40	"	40.000		71.1	42.6-147			MRL-2, Q-2, J
PFHxS	24.8	36	"	36.480		67.9	49.5-138			MRL-2, Q-2, J
PFNA	31.0	40	"	40.000		77.6	44.1-148			MRL-2, Q-2, J
PFNS	23.2	38	"	38.400		60.5	43.3-146			MRL-2, Q-2, J
PFOA	30.2	40	"	40.000		75.6	46.7-142			MRL-2, Q-2, J
PFOS	21.7	37	"	37.020		58.6	50.4-142			MRL-2, Q-2, J
PFPeA	29.6	40	"	40.000		74.1	52-135			MRL-2, Q-2, J
PFPeS	32.5	38	"	37.600		86.4	49-137			MRL-2, Q-2, J
PFTrDA	43.4	40	"	40.000		109	12.2-235			MRL-2, QC-1
PFUdA	32.9	40	"	40.000		82.2	45.8-162			MRL-2, Q-2, J
MRL Verification (1905121-PS2)				Prepared: 05/28/19 Analyzed: 05/30/19						
ASBPROC-800PFAS										
N-EtFOSAA	85.9	160	ng/L	160.00		53.7	27.2-205			MRL-2, Q-2, Y-2, J
N-MeFOSAA	86.7	160	"	160.00		54.2	23.2-198			MRL-2, Q-2, J
PFDA	120	160	"	160.00		75.2	27.4-182			MRL-2, Q-2, J
PFTeDA	41.5	160	"	160.00		26.0	22.9-199			MRL-2, Q-2, QC-1, Y-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
Y-2	Data should be limited to screening purposes only

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

July 24, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jeffrey Hendel
LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
PFAS	ASBPROC-800PFAS (Water)	

Report Narrative for Work Order: E192105 Analysis: SVOA

The compounds Perflurotetradecanoic acid (PFTeDA) and N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (N-EtFOSAA) were not reported with the original data since these two compounds do not meet the QA requirements of LSB's quality system. The project requested that these two compounds to be reported anyway. As a result, the data for the work order E192105 are being re-reported to contain results for these two compounds. The results for these two compounds are qualified "Y-2" (use for screening purposes only) since they do not meet LSB quality system requirements. The end user of the data should use the results for these two compounds with caution since the laboratory cannot defend the reported result. This report replaces E192105 SVOA FINAL 07 05 19 1013.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-Field-Blk-T1-2-0520	E192105-01	Field Blank	5/22/19 10:25	5/23/19 12:54
P2-Field-Blk-T2-1-0520	E192105-02	Field Blank	5/22/19 10:00	5/23/19 12:54
P2-Rinse-Blk-T-0520	E192105-04	Equipment Rinse Blank	5/22/19 15:45	5/23/19 12:54
P2-Trip-Blk-T1-1-0520	E192105-05	Trip Blank - Water	5/22/19 11:15	5/23/19 12:54
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-G100-Dup-0520	E192105-13	Surface Water	5/22/19 08:30	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-WL02-Bot-0520	E192105-23	Surface Water	5/22/19 16:15	5/23/19 12:54
P2-WL02-Mid-0520	E192105-24	Surface Water	5/22/19 16:00	5/23/19 12:54
P2-WL02-Top-0520	E192105-25	Surface Water	5/22/19 15:30	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
CR	No MDL value established for analyte
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QL-1	Laboratory Control Spike Recovery less than method control limits
QS-3	Surrogate recovery is lower than established control limits.
Y-2	Data should be limited to screening purposes only

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Field-Blk-T1-2-0520 **Lab ID:** E192105-01

Station ID: **Matrix:** Field Blank

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
39108-34-4	8:2FTS	78	U	ng/L	78	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Field-Blk-T1-2-0520** **Lab ID:** **E192105-01**

Station ID: **Matrix:** **Field Blank**

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:15	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-Field-Blk-T2-1-0520 **Lab ID:** E192105-02
Station ID: **Matrix:** Field Blank

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
39108-34-4	8:2FTS	78	U	ng/L	78	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Field-Blk-T2-1-0520** **Lab ID:** **E192105-02**

Station ID: **Matrix:** **Field Blank**

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:35	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-Rinse-Blk-T-0520 **Lab ID:** E192105-04

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/22/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Rinse-Blk-T-0520** **Lab ID:** **E192105-04**

Station ID: **Matrix:** **Equipment Rinse Blank**

Date Collected: 5/22/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 18:55	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T1-1-0520 **Lab ID:** E192105-05

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Trip-Blk-T1-1-0520** **Lab ID:** **E192105-05**

Station ID: **Matrix:** **Trip Blank - Water**

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:14	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520
Station ID: BNC

Lab ID: E192105-06
Matrix: Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:34	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
375-73-5	PFBS	44		ng/L	35	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 19:54	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
375-73-5	PFBS	82		ng/L	35	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
375-85-9	PFHpA	40	U, J, QS-3	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
1763-23-1	PFOS	33	J, Q-2	ng/L	37	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	42		ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:14	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-Dup-0520 **Lab ID:** E192105-13
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
375-73-5	PFBS	84		ng/L	36	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
1763-23-1	PFOS	47		ng/L	37	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-Dup-0520 **Lab ID:** E192105-13

Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	37	J, Q-2	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
376-06-7	PFTeDA	37	J, CR, Q-2, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:33	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS

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Sample ID: P2-LOB-0520 **Lab ID:** E192105-16

Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 20:53	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520
Station ID: UNT1

Lab ID: E192105-20
Matrix: Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
754-91-6	FOSA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
13252-13-6	HFPO-DA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
375-22-4	PFBA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
375-73-5	PFBS	36		ng/L	35	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
307-55-1	PFDoA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
375-85-9	PFHpA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
307-24-4	PFHxA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
375-95-1	PFNA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
335-67-1	PFOA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20

Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
72629-94-8	PFTrDA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS
2058-94-8	PFUdA	39	U	ng/L	39	6/05/19 10:03	6/12/19 21:13	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520
Station ID: UNT2
Lab ID: E192105-21
Matrix: Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:32	ASBPROC-800PFAS

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Bot-0520 **Lab ID:** E192105-23
Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
375-73-5	PFBS	100		ng/L	35	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
1763-23-1	PFOS	29	J	ng/L	37	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Bot-0520 **Lab ID:** E192105-23

Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	45		ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 21:52	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Mid-0520 **Lab ID:** E192105-24
Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 16:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
375-73-5	PFBS	84		ng/L	35	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
1763-23-1	PFOS	33	J, Q-2	ng/L	37	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Mid-0520 **Lab ID:** E192105-24
Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 16:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	42		ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:12	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Top-0520 **Lab ID:** E192105-25
Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
375-73-5	PFBS	85		ng/L	35	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
1763-23-1	PFOS	24	J	ng/L	37	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WL02-Top-0520 **Lab ID:** E192105-25
Station ID: WL02 **Matrix:** Surface Water

Date Collected: 5/22/19 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	41		ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:31	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
39108-34-4	8:2FTS	78	U	ng/L	78	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26

Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 22:51	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520
Station ID: YEC
Lab ID: E192105-27
Matrix: Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
39108-34-4	8:2FTS	77	U	ng/L	77	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27

Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:11	ASBPROC-800PFAS

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Blank (1906007-BLK1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	77	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
Blank (1906007-BLK2)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	77	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Blank (1906007-BLK2)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFDoA	U	40	ng/L							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
LCS (1906007-BS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	289	37	ng/L	374.00		77.4	67.1-125			
6:2FTS	282	38	"	380.00		74.3	49.2-134			
8:2FTS	260	77	"	384.00		67.6	56.4-136			
FOSA	292	40	"	400.00		72.9	57.7-148			
HFPO-DA	273	40	"	400.00		68.3	51.1-127			
N-EtFOSAA	296	160	"	400.00		74.1	47.2-185.3			
N-MeFOSAA	286	160	"	400.00		71.5	43.2-178			
PFBA	300	40	"	400.00		75.1	67.9-118			
PFBS	268	35	"	354.00		75.7	68.2-118			
PFDA	302	160	"	400.00		75.5	47.4-162			
PFDoA	271	40	"	400.00		67.8	56.5-155			
PFDS	282	39	"	386.00		73.1	35.1-168			
PFHpA	299	40	"	400.00		74.8	72.8-116			
PFHpS	300	38	"	380.00		78.9	59.7-130			
PFHxA	293	40	"	400.00		73.1	62.6-127			
PFHxS	266	36	"	364.80		72.9	69.5-117			
PFNA	300	40	"	400.00		75.0	64.1-128.4			
PFNS	273	38	"	384.00		71.1	63.3-126			
PFOA	299	40	"	400.00		74.9	66.7-122			
PFOS	302	37	"	370.20		81.6	70.4-122			
PFPeA	291	40	"	400.00		72.8	72-115			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
LCS (1906007-BS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFPeS	274	38	ng/L	376.00		72.8	69-117			
PFTeDA	109	160	"	400.00		27.3	42.9-179			Q-2, QL-1, Y-2, J
PFTrDA	204	40	"	400.00		51.0	32.2-215			
PFUdA	279	40	"	400.00		69.7	65.8-142			
Matrix Spike (1906007-MS1)		**Source: E192105-06**		Prepared: 06/05/19 Analyzed: 06/13/19						
ASBPROC-800PFAS										
4:2FTS	274	38	ng/L	358.93	U	76.4	70-133			
6:2FTS	316	38	"	364.68	U	86.8	58-143			
8:2FTS	289	77	"	368.52	U	78.5	66-126			
FOSA	308	40	"	383.88	U	80.2	61-138			
HFPO-DA	245	40	"	383.88	U	63.9	45-129			
N-EtFOSAA	285	160	"	383.88	U	74.3	50-168			
N-MeFOSAA	316	160	"	383.88	U	82.3	47-169			
PFBA	306	40	"	383.88	U	79.7	60-141			
PFBS	294	36	"	339.73	U	86.4	62-135			
PFDA	318	160	"	383.88	U	83.0	53-156			
PFDoA	286	40	"	383.88	U	74.5	30-172			
PFDS	264	39	"	370.44	U	71.2	44-151			
PFHpA	326	40	"	383.88	U	84.9	75-122			
PFHpS	309	38	"	364.68	U	84.7	66-132			
PFHxA	336	40	"	383.88	U	87.5	64-138			
PFHxS	282	37	"	350.10	U	80.6	72-124			
PFNA	326	40	"	383.88	U	84.8	72-129			
PFNS	280	39	"	368.52	U	76.0	61-126			
PFOA	329	40	"	383.88	U	85.7	74-127			
PFOS	290	37	"	355.28	U	81.8	68-132			
PFPeA	319	40	"	383.88	U	83.1	75-122			
PFPeS	306	38	"	360.84	U	84.8	72-122			
PFTeDA	151	160	"	383.88	U	39.4	10-194			Q-2, Y-2, J
PFTrDA	229	40	"	383.88	U	59.6	10-193			
PFUdA	289	40	"	383.88	U	75.3	44-164			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Matrix Spike Dup (1906007-MSD1)		**Source: E192105-06**		Prepared: 06/05/19 Analyzed: 06/13/19						
ASBPROC-800PFAS										
4:2FTS	266	37	ng/L	322.41	U	82.4	70-133	3.14	34	
6:2FTS	298	38	"	327.59	U	91.1	58-143	5.85	45	
8:2FTS	255	76	"	331.03	U	76.9	66-126	12.8	56	
FOSA	280	40	"	344.83	U	81.1	61-138	9.59	39	
HFPO-DA	273	40	"	344.83	U	79.1	45-129	10.7	57	
N-EtFOSAA	281	160	"	344.83	U	81.4	50-168	1.71	53	
N-MeFOSAA	271	160	"	344.83	U	78.6	47-169	15.3	65	
PFBA	298	40	"	344.83	U	86.4	60-141	2.61	37	
PFBS	287	35	"	305.17	U	94.1	62-135	2.21	32	
PFDA	295	160	"	344.83	U	85.5	53-156	7.77	57	
PFDoA	269	40	"	344.83	U	77.9	30-172	6.25	56	
PFDS	249	38	"	332.76	U	74.9	44-151	5.59	66	
PFHpA	308	40	"	344.83	U	89.4	75-122	5.60	26	
PFHpS	285	38	"	327.59	U	87.1	66-132	7.94	28	
PFHxA	301	40	"	344.83	U	87.2	64-138	11.1	42	
PFHxS	274	36	"	314.48	U	87.2	72-124	2.94	32	
PFNA	300	40	"	344.83	U	87.1	72-129	8.03	31	
PFNS	257	38	"	331.03	U	77.8	61-126	8.48	35	
PFOA	302	40	"	344.83	U	87.7	74-127	8.48	32	
PFOS	261	37	"	319.14	U	81.9	68-132	10.5	37	
PFPeA	298	40	"	344.83	U	86.4	75-122	6.73	27	
PFPeS	300	37	"	324.14	U	92.4	72-122	2.07	29	
PFTeDA	152	160	"	344.83	U	44.1	10-194	0.377	111	Q-2, Y-2, J
PFTrDA	223	40	"	344.83	U	64.6	10-193	2.68	106	
PFUdA	286	40	"	344.83	U	82.8	44-164	1.19	48	
MRL Verification (1906007-PS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	28.5	37	ng/L	37.400		76.1	47.1-145			MRL-2, Q-2, J
6:2FTS	22.8	38	"	38.000		59.9	29.2-154			MRL-2, Q-2, J
FOSA	30.6	40	"	40.000		76.5	37.7-168			MRL-2, Q-2, J
HFPO-DA	26.2	40	"	40.000		65.5	31.3-147			MRL-2, Q-2, J
PFBA	30.3	40	"	40.000		75.7	47.9-138			MRL-2, Q-2, J
PFBS	23.7	35	"	35.400		67.0	48.2-138			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
MRL Verification (1906007-PS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFDoA	22.6	40	ng/L	40.000		56.5	36.5-175			MRL-2, Q-2, J
PFDS	35.2	39	"	38.600		91.2	15.1-188			MRL-2, Q-2, J
PFHpA	28.2	40	"	40.000		70.5	52.8-136			MRL-2, Q-2, J
PFHpS	30.2	38	"	38.000		79.4	39.7-150			MRL-2, Q-2, J
PFHxA	26.5	40	"	40.000		66.2	42.6-147			MRL-2, Q-2, J
PFHxS	30.2	36	"	36.480		82.8	49.5-138			MRL-2, Q-2, J
PFNA	27.1	40	"	40.000		67.7	44.1-148			MRL-2, Q-2, J
PFNS	23.7	38	"	38.400		61.7	43.3-146			MRL-2, Q-2, J
PFOA	26.5	40	"	40.000		66.2	46.7-142			MRL-2, Q-2, J
PFOS	21.4	37	"	37.020		57.9	50.4-142			MRL-2, Q-2, J
PFPeA	23.7	40	"	40.000		59.3	52-135			MRL-2, Q-2, J
PFPeS	31.0	38	"	37.600		82.5	49-137			MRL-2, Q-2, J
PFTrDA	25.4	40	"	40.000		63.6	12.2-235			MRL-2, Q-2, J
PFUdA	22.2	40	"	40.000		55.4	45.8-162			MRL-2, Q-2, J
MRL Verification (1906007-PS2)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
8:2FTS	88.3	77	ng/L	153.60		57.5	36.4-156			MRL-2
N-EtFOSAA	88.2	160	"	160.00		55.1	27.2-205			MRL-2, Q-2, J
N-MeFOSAA	80.2	160	"	160.00		50.1	23.2-198			MRL-2, Q-2, J
PFDA	116	160	"	160.00		72.4	27.4-182			MRL-2, Q-2, J
PFTeDA	40.7	160	"	160.00		25.4	22.9-199			MRL-2, Q-2, Y-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QL-1	Laboratory Control Spike Recovery less than method control limits
Y-2	Data should be limited to screening purposes only

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

July 24, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jeffrey Hendel
LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
PFAS	ASBPROC-800PFAS (Water)	

Report Narrative for Work Order: E192106 Analysis: SVOA

The compounds Perflurotetradecanoic acid (PFTeDA) and N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (N-EtFOSAA) were not reported with the original data since these two compounds do not meet the QA requirements of LSB's quality system. The project requested that these two compounds to be reported anyway. As a result, the data for the work order E192106 are being re-reported to contain results for these two compounds. The results for these two compounds are qualified "Y-2" (use for screening purposes only) since they do not meet LSB quality system requirements. The end user of the data should use the results for these two compounds with caution since the laboratory cannot defend the reported result. This report replaces E192106 SVOA FINAL 07 05 19 1013.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

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SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-Field-Blk-T2-2-0520	E192106-01	Field Blank	5/23/19 11:00	5/23/19 15:59
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
QL-1	Laboratory Control Spike Recovery less than method control limits
Y-2	Data should be limited to screening purposes only

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Field-Blk-T2-2-0520 **Lab ID:** E192106-01
Station ID: **Matrix:** Field Blank

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
39108-34-4	8:2FTS	78	U	ng/L	78	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-Field-Blk-T2-2-0520** **Lab ID:** **E192106-01**

Station ID: **Matrix:** **Field Blank**

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:31	ASBPROC-800PFAS

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Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02
Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
39108-34-4	8:2FTS	76	U	ng/L	76	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2	ng/L	160	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	6/05/19 10:03	6/12/19 23:50	ASBPROC-800PFAS

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Blank (1906007-BLK1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	77	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
Blank (1906007-BLK2)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	77	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Blank (1906007-BLK2)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFDoA	U	40	ng/L							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
LCS (1906007-BS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	289	37	ng/L	374.00		77.4	67.1-125			
6:2FTS	282	38	"	380.00		74.3	49.2-134			
8:2FTS	260	77	"	384.00		67.6	56.4-136			
FOSA	292	40	"	400.00		72.9	57.7-148			
HFPO-DA	273	40	"	400.00		68.3	51.1-127			
N-EtFOSAA	296	160	"	400.00		74.1	47.2-185.3			Y-2
N-MeFOSAA	286	160	"	400.00		71.5	43.2-178			
PFBA	300	40	"	400.00		75.1	67.9-118			
PFBS	268	35	"	354.00		75.7	68.2-118			
PFDA	302	160	"	400.00		75.5	47.4-162			
PFDoA	271	40	"	400.00		67.8	56.5-155			
PFDS	282	39	"	386.00		73.1	35.1-168			
PFHpA	299	40	"	400.00		74.8	72.8-116			
PFHpS	300	38	"	380.00		78.9	59.7-130			
PFHxA	293	40	"	400.00		73.1	62.6-127			
PFHxS	266	36	"	364.80		72.9	69.5-117			
PFNA	300	40	"	400.00		75.0	64.1-128.4			
PFNS	273	38	"	384.00		71.1	63.3-126			
PFOA	299	40	"	400.00		74.9	66.7-122			
PFOS	302	37	"	370.20		81.6	70.4-122			
PFPeA	291	40	"	400.00		72.8	72-115			

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
LCS (1906007-BS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFPeS	274	38	ng/L	376.00		72.8	69-117			
PFTeDA	109	160	"	400.00		27.3	42.9-179			Q-2, QL-1, Y-2, J
PFTrDA	204	40	"	400.00		51.0	32.2-215			
PFUdA	279	40	"	400.00		69.7	65.8-142			
Matrix Spike (1906007-MS1)		**Source: E192105-06**		Prepared: 06/05/19 Analyzed: 06/13/19						
ASBPROC-800PFAS										
4:2FTS	274	38	ng/L	358.93	U	76.4	70-133			
6:2FTS	316	38	"	364.68	U	86.8	58-143			
8:2FTS	289	77	"	368.52	U	78.5	66-126			
FOSA	308	40	"	383.88	U	80.2	61-138			
HFPO-DA	245	40	"	383.88	U	63.9	45-129			
N-EtFOSAA	285	160	"	383.88	U	74.3	50-168			Y-2
N-MeFOSAA	316	160	"	383.88	U	82.3	47-169			
PFBA	306	40	"	383.88	U	79.7	60-141			
PFBS	294	36	"	339.73	U	86.4	62-135			
PFDA	318	160	"	383.88	U	83.0	53-156			
PFDoA	286	40	"	383.88	U	74.5	30-172			
PFDS	264	39	"	370.44	U	71.2	44-151			
PFHpA	326	40	"	383.88	U	84.9	75-122			
PFHpS	309	38	"	364.68	U	84.7	66-132			
PFHxA	336	40	"	383.88	U	87.5	64-138			
PFHxS	282	37	"	350.10	U	80.6	72-124			
PFNA	326	40	"	383.88	U	84.8	72-129			
PFNS	280	39	"	368.52	U	76.0	61-126			
PFOA	329	40	"	383.88	U	85.7	74-127			
PFOS	290	37	"	355.28	U	81.8	68-132			
PFPeA	319	40	"	383.88	U	83.1	75-122			
PFPeS	306	38	"	360.84	U	84.8	72-122			
PFTeDA	151	160	"	383.88	U	39.4	10-194			Q-2, Y-2, J
PFTrDA	229	40	"	383.88	U	59.6	10-193			
PFUdA	289	40	"	383.88	U	75.3	44-164			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
Matrix Spike Dup (1906007-MSD1)		**Source: E192105-06**		Prepared: 06/05/19 Analyzed: 06/13/19						
ASBPROC-800PFAS										
4:2FTS	266	37	ng/L	322.41	U	82.4	70-133	3.14	34	
6:2FTS	298	38	"	327.59	U	91.1	58-143	5.85	45	
8:2FTS	255	76	"	331.03	U	76.9	66-126	12.8	56	
FOSA	280	40	"	344.83	U	81.1	61-138	9.59	39	
HFPO-DA	273	40	"	344.83	U	79.1	45-129	10.7	57	
N-EtFOSAA	281	160	"	344.83	U	81.4	50-168	1.71	53	Y-2
N-MeFOSAA	271	160	"	344.83	U	78.6	47-169	15.3	65	
PFBA	298	40	"	344.83	U	86.4	60-141	2.61	37	
PFBS	287	35	"	305.17	U	94.1	62-135	2.21	32	
PFDA	295	160	"	344.83	U	85.5	53-156	7.77	57	
PFDoA	269	40	"	344.83	U	77.9	30-172	6.25	56	
PFDS	249	38	"	332.76	U	74.9	44-151	5.59	66	
PFHpA	308	40	"	344.83	U	89.4	75-122	5.60	26	
PFHpS	285	38	"	327.59	U	87.1	66-132	7.94	28	
PFHxA	301	40	"	344.83	U	87.2	64-138	11.1	42	
PFHxS	274	36	"	314.48	U	87.2	72-124	2.94	32	
PFNA	300	40	"	344.83	U	87.1	72-129	8.03	31	
PFNS	257	38	"	331.03	U	77.8	61-126	8.48	35	
PFOA	302	40	"	344.83	U	87.7	74-127	8.48	32	
PFOS	261	37	"	319.14	U	81.9	68-132	10.5	37	
PFPeA	298	40	"	344.83	U	86.4	75-122	6.73	27	
PFPeS	300	37	"	324.14	U	92.4	72-122	2.07	29	
PFTeDA	152	160	"	344.83	U	44.1	10-194	0.377	111	Q-2, Y-2, J
PFTrDA	223	40	"	344.83	U	64.6	10-193	2.68	106	
PFUdA	286	40	"	344.83	U	82.8	44-164	1.19	48	
MRL Verification (1906007-PS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
4:2FTS	28.5	37	ng/L	37.400		76.1	47.1-145			MRL-2, Q-2, J
6:2FTS	22.8	38	"	38.000		59.9	29.2-154			MRL-2, Q-2, J
FOSA	30.6	40	"	40.000		76.5	37.7-168			MRL-2, Q-2, J
HFPO-DA	26.2	40	"	40.000		65.5	31.3-147			MRL-2, Q-2, J
PFBA	30.3	40	"	40.000		75.7	47.9-138			MRL-2, Q-2, J
PFBS	23.7	35	"	35.400		67.0	48.2-138			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906007 - S PFC										
MRL Verification (1906007-PS1)				Prepared: 06/05/19 Analyzed: 06/12/19						
PFDoA	22.6	40	ng/L	40.000		56.5	36.5-175			MRL-2, Q-2, J
PFDS	35.2	39	"	38.600		91.2	15.1-188			MRL-2, Q-2, J
PFHpA	28.2	40	"	40.000		70.5	52.8-136			MRL-2, Q-2, J
PFHpS	30.2	38	"	38.000		79.4	39.7-150			MRL-2, Q-2, J
PFHxA	26.5	40	"	40.000		66.2	42.6-147			MRL-2, Q-2, J
PFHxS	30.2	36	"	36.480		82.8	49.5-138			MRL-2, Q-2, J
PFNA	27.1	40	"	40.000		67.7	44.1-148			MRL-2, Q-2, J
PFNS	23.7	38	"	38.400		61.7	43.3-146			MRL-2, Q-2, J
PFOA	26.5	40	"	40.000		66.2	46.7-142			MRL-2, Q-2, J
PFOS	21.4	37	"	37.020		57.9	50.4-142			MRL-2, Q-2, J
PFPeA	23.7	40	"	40.000		59.3	52-135			MRL-2, Q-2, J
PFPeS	31.0	38	"	37.600		82.5	49-137			MRL-2, Q-2, J
PFTrDA	25.4	40	"	40.000		63.6	12.2-235			MRL-2, Q-2, J
PFUdA	22.2	40	"	40.000		55.4	45.8-162			MRL-2, Q-2, J
MRL Verification (1906007-PS2)				Prepared: 06/05/19 Analyzed: 06/12/19						
ASBPROC-800PFAS										
8:2FTS	88.3	77	ng/L	153.60		57.5	36.4-156			MRL-2
N-EtFOSAA	88.2	160	"	160.00		55.1	27.2-205			MRL-2, Q-2, Y-2, J
N-MeFOSAA	80.2	160	"	160.00		50.1	23.2-198			MRL-2, Q-2, J
PFDA	116	160	"	160.00		72.4	27.4-182			MRL-2, Q-2, J
PFTeDA	40.7	160	"	160.00		25.4	22.9-199			MRL-2, Q-2, Y-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QL-1	Laboratory Control Spike Recovery less than method control limits
Y-2	Data should be limited to screening purposes only

Appendix B – VOC Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

June 26, 2019

4LSASD-LSB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Sallie Hale
OCS Analyst

THRU: Jeffrey Hendel, Chief
LSB Organic Chemistry Section

TO: Nathan Barlet

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Volatile Organics (VOA)		
Volatile organic compounds	EPA 8260C (Water)	ISO

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-Trip-Blk-T2-1-0520	E192104-03	Trip Blank - Water	5/20/19 17:00	5/22/19 13:08
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-CEC-0520	E192104-05	Surface Water	5/20/19 12:30	5/22/19 13:08
P2-CHR-0520	E192104-06	Surface Water	5/21/19 09:30	5/22/19 13:08
P2-CRI-0520	E192104-07	Surface Water	5/20/19 12:00	5/22/19 13:08
P2-CRI-Dup-0520	E192104-08	Surface Water	5/20/19 12:15	5/22/19 13:08
P2-KNC-0520	E192104-11	Surface Water	5/20/19 15:45	5/22/19 13:08
P2-LIR-0520	E192104-12	Surface Water	5/21/19 13:45	5/22/19 13:08
P2-MHC-0520	E192104-13	Surface Water	5/20/19 14:40	5/22/19 13:08
P2-MUC-0520	E192104-14	Surface Water	5/20/19 16:15	5/22/19 13:08
P2-SPC-0520	E192104-15	Surface Water	5/21/19 11:20	5/22/19 13:08
P2-UNT3-0520	E192104-16	Surface Water	5/20/19 18:15	5/22/19 13:08
P2-Trip-Blk-T1-1-0520	E192105-05	Trip Blank - Water	5/22/19 11:15	5/23/19 12:54
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-G100-Dup-0520	E192105-13	Surface Water	5/22/19 08:30	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
QL-3	Laboratory Control Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T2-1-0520 **Lab ID:** E192104-03

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/20/19 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T2-1-0520 **Lab ID:** E192104-03

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/20/19 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-25-2	Bromoform	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1	ug/L	2.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-90-7	Chlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
74-87-3	Chloromethane	0.50	U, J, QC-1	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 13:24	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T2-1-0520 **Lab ID:** E192104-03

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/20/19 17:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 13:24	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 9:24	5/23/19 13:24	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-25-2	Bromoform	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1	ug/L	2.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-90-7	Chlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
74-87-3	Chloromethane	0.50	U, J, QC-1	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 23:01	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 23:01	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 9:24	5/23/19 23:01	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:41	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C

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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:41	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 21:41	EPA 8260C

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06
Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:07	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:07	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 22:07	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	0.15	J, Q-2	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:33	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
108-88-3	Toluene	0.20	J, Q-2	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:33	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 22:33	EPA 8260C

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 22:59	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
108-88-3	Toluene	0.10	J, Q-2	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 22:59	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 22:59	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C

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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 23:25	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:25	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 23:25	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12

Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-25-2	Bromoform	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1	ug/L	2.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-90-7	Chlorobenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
74-87-3	Chloromethane	0.50	U, J, QC-1	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/23/19 9:24	5/23/19 15:35	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/23/19 9:24	5/23/19 15:35	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 9:24	5/23/19 15:35	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 23:52	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 23:52	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 23:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-25-2	Bromoform	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QL-3	ug/L	2.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 14:59	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 14:59	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 14:12	5/28/19 14:59	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15

Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-25-2	Bromoform	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QL-3	ug/L	2.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 15:52	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15

Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 15:52	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 14:12	5/28/19 15:52	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C

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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16

Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-25-2	Bromoform	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QL-3	ug/L	2.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/28/19 14:12	5/28/19 16:18	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:18	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 14:12	5/28/19 16:18	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T1-1-0520 **Lab ID:** E192105-05

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T1-1-0520 **Lab ID:** E192105-05

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:00	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-Trip-Blk-T1-1-0520 **Lab ID:** E192105-05

Station ID: **Matrix:** Trip Blank - Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:00	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 16:00	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06
Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 16:26	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 16:26	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 16:26	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 18:11	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C

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D.A.R.T. Id: 19-0253
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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:11	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 18:11	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 18:37	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 18:37	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 18:37	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-Dup-0520 **Lab ID:** E192105-13
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-Dup-0520 **Lab ID:** E192105-13
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:03	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-Dup-0520 **Lab ID:** E192105-13
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:03	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 19:03	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-LOB-0520** **Lab ID:** **E192105-16**

Station ID: **LOB** **Matrix:** **Surface Water**

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:30	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:30	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 19:30	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 19:56	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 19:56	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 19:56	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:22	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:22	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 20:22	EPA 8260C

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Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26

Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-25-2	Bromoform	1.0	U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 20:48	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
108-88-3	Toluene	0.11	J, Q-2	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 20:48	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 20:48	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-25-2	Bromoform	1.0 U, J, QC-1	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
74-83-9	Bromomethane	2.0 U, J, QC-1, QL-1, QR-1	ug/L	2.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-15-0	Carbon disulfide	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-90-7	Chlorobenzene	0.50 U, J, QL-1	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-00-3	Chloroethane	2.0 U	ug/L	2.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
67-66-3	Chloroform	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
74-87-3	Chloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
110-82-7	Cyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
124-48-1	Dibromochloromethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
74-95-3	Dibromomethane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
100-41-4	Ethyl Benzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
98-82-8	Isopropylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
79-20-9	Methyl Acetate	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0 U	ug/L	4.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0 U	ug/L	1.0	5/24/19 10:29	5/24/19 21:15	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-87-2	Methylcyclohexane	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-09-2	Methylene Chloride	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
104-51-8	n-Butylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
103-65-1	n-Propylbenzene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
95-49-8	o-Chlorotoluene	0.50 U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27

Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/24/19 10:29	5/24/19 21:15	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/24/19 10:29	5/24/19 21:15	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-34-3	1,1-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
563-58-6	1,1-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
107-06-2	1,2-Dichloroethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
78-87-5	1,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
142-28-9	1,3-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
594-20-7	2,2-Dichloropropane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
67-64-1	Acetone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
71-43-2	Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-86-1	Bromobenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
74-97-5	Bromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C

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Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-25-2	Bromoform	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
74-83-9	Bromomethane	2.0	U, J, QC-1, QL-1, QL-3	ug/L	2.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/L	2.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
56-23-5	Carbon Tetrachloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-90-7	Chlorobenzene	0.50	U, J, QL-1	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/L	2.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
67-66-3	Chloroform	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
74-87-3	Chloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
110-82-7	Cyclohexane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
124-48-1	Dibromochloromethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
74-95-3	Dibromomethane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
100-41-4	Ethyl Benzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
87-68-3	Hexachlorobutadiene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
98-82-8	Isopropylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
79-20-9	Methyl Acetate	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
591-78-6	Methyl Butyl Ketone	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.0	U	ug/L	4.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	1.0	U	ug/L	1.0	5/28/19 14:12	5/28/19 16:44	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-87-2	Methylcyclohexane	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-09-2	Methylene Chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
104-51-8	n-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
103-65-1	n-Propylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
95-49-8	o-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
95-47-6	o-Xylene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
106-43-4	p-Chlorotoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
99-87-6	p-Isopropyltoluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
135-98-8	sec-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
100-42-5	Styrene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
98-06-6	tert-Butylbenzene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
108-88-3	Toluene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
75-01-4	Vinyl chloride	0.50	U	ug/L	0.50	5/28/19 14:12	5/28/19 16:44	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 14:12	5/28/19 16:44	EPA 8260C

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Blank (1905110-BLK1)				Prepared & Analyzed: 05/23/19						
EPA 8260C										
(m- and/or p-)Xylene	U	1.0	ug/L							U
1,1,1,2-Tetrachloroethane	U	0.50	"							U
1,1,1-Trichloroethane	U	0.50	"							U
1,1,2,2-Tetrachloroethane	U	0.50	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	0.50	"							U
1,1,2-Trichloroethane	U	0.50	"							U
1,1-Dichloroethane	U	0.50	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	0.50	"							U
1,1-Dichloropropene	U	0.50	"							U
1,2,3-Trichlorobenzene	U	0.50	"							U
1,2,3-Trichloropropane	U	0.50	"							U
1,2,4-Trichlorobenzene	U	0.50	"							U
1,2,4-Trimethylbenzene	U	0.50	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	1.0	"							U
1,2-Dibromoethane (EDB)	U	0.50	"							U
1,2-Dichlorobenzene	U	0.50	"							U
1,2-Dichloroethane	U	0.50	"							U
1,2-Dichloropropane	U	0.50	"							U
1,3,5-Trimethylbenzene	U	0.50	"							U
1,3-Dichlorobenzene	U	0.50	"							U
1,3-Dichloropropane	U	0.50	"							U
1,4-Dichlorobenzene	U	0.50	"							U
2,2-Dichloropropane	U	0.50	"							U
Acetone	U	4.0	"							U
Benzene	U	0.50	"							U
Bromobenzene	U	0.50	"							U
Bromochloromethane	U	0.50	"							U
Bromodichloromethane	U	0.50	"							U
Bromoform	U	1.0	"							U
Bromomethane	U	2.0	"							QC-1, U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	0.50	"							U
Chlorobenzene	U	0.50	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	0.50	"							U
Chloromethane	U	0.50	"							QC-1, U
cis-1,2-Dichloroethene	U	0.50	"							U
cis-1,3-Dichloropropene	U	0.50	"							U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Blank (1905110-BLK1)				Prepared & Analyzed: 05/23/19						
Cyclohexane	U	0.50	ug/L							U
Dibromochloromethane	U	0.50	"							U
Dibromomethane	U	0.50	"							U
Dichlorodifluoromethane (Freon 12)	U	0.50	"							U
Ethyl Benzene	U	0.50	"							U
Hexachlorobutadiene	U	0.50	"							U
Isopropylbenzene	U	0.50	"							U
Methyl Acetate	U	1.0	"							U
Methyl Butyl Ketone	U	1.0	"							U
Methyl Ethyl Ketone	U	4.0	"							U
Methyl Isobutyl Ketone	U	1.0	"							U
Methyl T-Butyl Ether (MTBE)	U	0.50	"							U
Methylcyclohexane	U	0.50	"							U
Methylene Chloride	U	0.50	"							U
n-Butylbenzene	U	0.50	"							U
n-Propylbenzene	U	0.50	"							U
o-Chlorotoluene	U	0.50	"							U
o-Xylene	U	0.50	"							U
p-Chlorotoluene	U	0.50	"							U
p-Isopropyltoluene	U	0.50	"							U
sec-Butylbenzene	U	0.50	"							U
Styrene	U	0.50	"							U
tert-Butylbenzene	U	0.50	"							U
Tetrachloroethene (Tetrachloroethylene)	U	0.50	"							U
Toluene	U	0.50	"							U
trans-1,2-Dichloroethene	U	0.50	"							U
trans-1,3-Dichloropropene	U	0.50	"							U
Trichloroethene (Trichloroethylene)	U	0.50	"							U
Trichlorofluoromethane (Freon 11)	U	0.50	"							U
Vinyl chloride	U	0.50	"							U
Tentatively Identified Compounds	U	10	"							U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
LCS (1905110-BS1)				Prepared & Analyzed: 05/23/19						
EPA 8260C										
(m- and/or p-)Xylene	42.440		ug/L	40.000		106	91.3-117			
1,1,1,2-Tetrachloroethane	19.320		"	20.000		96.6	76.5-128			
1,1,1-Trichloroethane	19.660		"	20.000		98.3	79.3-126			
1,1,2,2-Tetrachloroethane	18.730		"	20.000		93.6	80.2-118			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	19.570		"	20.000		97.8	80-124			
1,1,2-Trichloroethane	19.790		"	20.000		99.0	87.1-111			
1,1-Dichloroethane	20.280		"	20.000		101	87.8-113			
1,1-Dichloroethene (1,1-Dichloroethylene)	20.160		"	20.000		101	85.4-116			
1,1-Dichloropropene	21.010		"	20.000		105	89.4-115			
1,2,3-Trichlorobenzene	19.920		"	20.000		99.6	85-117			
1,2,3-Trichloropropane	20.130		"	20.000		101	83.4-114			
1,2,4-Trichlorobenzene	19.640		"	20.000		98.2	83.9-117			
1,2,4-Trimethylbenzene	20.610		"	20.000		103	86.5-121			
1,2-Dibromo-3-Chloropropane (DBCP)	37.290		"	40.000		93.2	72.3-136			
1,2-Dibromoethane (EDB)	20.460		"	20.000		102	87.3-115			
1,2-Dichlorobenzene	18.820		"	20.000		94.1	86.4-111			
1,2-Dichloroethane	20.230		"	20.000		101	83.9-122			
1,2-Dichloropropane	20.310		"	20.000		102	88-113			
1,3,5-Trimethylbenzene	20.740		"	20.000		104	86.8-119			
1,3-Dichlorobenzene	18.610		"	20.000		93.0	86.4-112			
1,3-Dichloropropane	20.780		"	20.000		104	87.4-113			
1,4-Dichlorobenzene	18.540		"	20.000		92.7	86.5-110			
2,2-Dichloropropane	21.070		"	20.000		105	53.4-154			
Acetone	37.410		"	40.000		93.5	49.7-153			
Benzene	19.970		"	20.000		99.8	89.6-113			
Bromobenzene	19.130		"	20.000		95.6	84.6-112			
Bromochloromethane	19.360		"	20.000		96.8	83.6-117			
Bromodichloromethane	19.390		"	20.000		97.0	80-125			
Bromoform	32.950		"	40.000		82.4	63.1-142			
Bromomethane	6.6100		"	20.000		33.0	49.9-140			QC-1, QL-1
Carbon disulfide	20.770		"	20.000		104	81.7-114			
Carbon Tetrachloride	20.080		"	20.000		100	68.8-140			
Chlorobenzene	19.080		"	20.000		95.4	88.4-109			
Chloroethane	23.280		"	20.000		116	76.7-118			
Chloroform	19.550		"	20.000		97.8	87.9-115			
Chloromethane	15.650		"	20.000		78.2	68.9-118			QC-1
cis-1,2-Dichloroethene	20.940		"	20.000		105	87.6-115			
cis-1,3-Dichloropropene	20.670		"	20.000		103	81-121			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
LCS (1905110-BS1)				Prepared & Analyzed: 05/23/19						
Cyclohexane	21.610		ug/L	20.000		108	83.5-122			
Dibromochloromethane	19.260		"	20.000		96.3	71.7-133			
Dibromomethane	19.800		"	20.000		99.0	87.3-117			
Dichlorodifluoromethane (Freon 12)	22.100		"	20.000		110	63.5-132			
Ethyl Benzene	20.140		"	20.000		101	90-114			
Hexachlorobutadiene	19.730		"	20.000		98.6	80.2-116			
Isopropylbenzene	20.470		"	20.000		102	84.5-120			
Methyl Acetate	41.360		"	40.000		103	75.8-121			
Methyl Butyl Ketone	42.050		"	40.000		105	69.9-136			
Methyl Ethyl Ketone	40.620		"	40.000		102	68.1-135			
Methyl Isobutyl Ketone	42.660		"	40.000		107	77-127			
Methyl T-Butyl Ether (MTBE)	20.840		"	20.000		104	80.1-123			
Methylcyclohexane	21.370		"	20.000		107	82.6-124			
Methylene Chloride	18.840		"	20.000		94.2	81.2-118			
n-Butylbenzene	20.700		"	20.000		104	85.7-121			
n-Propylbenzene	20.570		"	20.000		103	87-117			
o-Chlorotoluene	19.140		"	20.000		95.7	85.8-114			
o-Xylene	21.280		"	20.000		106	88.9-116			
p-Chlorotoluene	19.530		"	20.000		97.6	86.5-114			
p-Isopropyltoluene	20.780		"	20.000		104	86.3-123			
sec-Butylbenzene	21.190		"	20.000		106	86.2-120			
Styrene	21.420		"	20.000		107	89.9-119			
tert-Butylbenzene	20.670		"	20.000		103	85.2-119			
Tetrachloroethene (Tetrachloroethylene)	20.390		"	20.000		102	85.1-113			
Toluene	19.790		"	20.000		99.0	87.7-111			
trans-1,2-Dichloroethene	20.970		"	20.000		105	86.6-114			
trans-1,3-Dichloropropene	20.480		"	20.000		102	77.4-127			
Trichloroethene (Trichloroethylene)	20.070		"	20.000		100	87.8-114			
Trichlorofluoromethane (Freon 11)	19.180		"	20.000		95.9	78-129			
Vinyl chloride	19.150		"	20.000		95.8	78.8-115			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Matrix Spike (1905110-MS1)		**Source: E192104-12**		Prepared & Analyzed: 05/23/19						
EPA 8260C										
(m- and/or p-)Xylene	22.320		ug/L	20.465	0.0000	109	81.5-138			
1,1,1,2-Tetrachloroethane	9.8300		"	10.233	0.0000	96.1	77.4-127			
1,1,1-Trichloroethane	11.130		"	10.233	0.0000	109	85.6-137			
1,1,2,2-Tetrachloroethane	9.4300		"	10.233	0.0000	92.2	78-121			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	11.240		"	10.233	0.0000	110	87.8-141			
1,1,2-Trichloroethane	9.8900		"	10.233	0.0000	96.6	83.6-119			
1,1-Dichloroethane	11.380		"	10.233	0.0000	111	87.6-126			
1,1-Dichloroethene (1,1-Dichloroethylene)	11.480		"	10.233	0.0000	112	87.5-133			
1,1-Dichloropropene	11.900		"	10.233	0.0000	116	90.2-132			
1,2,3-Trichlorobenzene	9.8800		"	10.233	0.0000	96.6	69.5-126			
1,2,3-Trichloropropane	10.150		"	10.233	0.0000	99.2	78.9-120			
1,2,4-Trichlorobenzene	9.7900		"	10.233	0.0000	95.7	67.6-125			
1,2,4-Trimethylbenzene	10.820		"	10.233	0.0000	106	57.5-147			
1,2-Dibromo-3-Chloropropane (DBCP)	18.310		"	20.465	0.0000	89.5	68.3-125			
1,2-Dibromoethane (EDB)	10.320		"	10.233	0.0000	101	83.4-119			
1,2-Dichlorobenzene	9.7600		"	10.233	0.0000	95.4	78.4-125			
1,2-Dichloroethane	10.730		"	10.233	0.0000	105	83.5-129			
1,2-Dichloropropane	10.670		"	10.233	0.0000	104	85.3-125			
1,3,5-Trimethylbenzene	10.890		"	10.233	0.0000	106	61.9-143			
1,3-Dichlorobenzene	9.5500		"	10.233	0.0000	93.3	79-125			
1,3-Dichloropropane	10.430		"	10.233	0.0000	102	83.6-121			
1,4-Dichlorobenzene	9.6200		"	10.233	0.0000	94.0	78.3-124			
2,2-Dichloropropane	11.590		"	10.233	0.0000	113	45.4-163			
Acetone	21.740		"	20.465	2.0000	96.5	48.2-133			
Benzene	11.130		"	10.233	0.0000	109	88.8-127			
Bromobenzene	10.030		"	10.233	0.0000	98.0	80.5-121			
Bromochloromethane	10.430		"	10.233	0.0000	102	82.7-126			
Bromodichloromethane	10.270		"	10.233	0.0000	100	81.1-125			
Bromoform	16.910		"	20.465	0.0000	82.6	50.7-133			
Bromomethane	4.4800		"	10.233	0.0000	43.8	33.6-168			QC-1
Carbon disulfide	12.460		"	10.233	0.61000	116	40.9-152			
Carbon Tetrachloride	11.490		"	10.233	0.0000	112	75.4-144			
Chlorobenzene	10.050		"	10.233	0.0000	98.2	85.5-123			
Chloroethane	13.510		"	10.233	0.0000	132	70.6-150			
Chloroform	10.700		"	10.233	0.0000	105	87.6-128			
Chloromethane	9.4800		"	10.233	0.0000	92.6	67.3-138			QC-1
cis-1,2-Dichloroethene	11.240		"	10.233	0.0000	110	85.3-127			
cis-1,3-Dichloropropene	10.320		"	10.233	0.0000	101	73-125			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Matrix Spike (1905110-MS1)		**Source: E192104-12**		Prepared & Analyzed: 05/23/19						
Cyclohexane	12.110		ug/L	10.233	0.0000	118	85.1-140			
Dibromochloromethane	9.7400		"	10.233	0.0000	95.2	67.1-128			
Dibromomethane	10.080		"	10.233	0.0000	98.5	83.2-124			
Dichlorodifluoromethane (Freon 12)	12.980		"	10.233	0.0000	127	71.1-152			
Ethyl Benzene	10.690		"	10.233	0.0000	104	85-130			
Hexachlorobutadiene	10.280		"	10.233	0.0000	100	67.2-136			
Isopropylbenzene	11.030		"	10.233	0.0000	108	82.2-134			
Methyl Acetate	21.790		"	20.465	0.0000	106	66.1-122			
Methyl Butyl Ketone	20.240		"	20.465	0.0000	98.9	66.9-124			
Methyl Ethyl Ketone	20.960		"	20.465	0.0000	102	60.8-127			
Methyl Isobutyl Ketone	20.520		"	20.465	0.0000	100	73.9-125			
Methyl T-Butyl Ether (MTBE)	10.730		"	10.233	0.0000	105	76.5-127			
Methylcyclohexane	12.010		"	10.233	0.0000	117	81.4-144			
Methylene Chloride	10.650		"	10.233	0.0000	104	80.7-129			
n-Butylbenzene	10.870		"	10.233	0.0000	106	74.7-136			
n-Propylbenzene	10.960		"	10.233	0.0000	107	79.7-136			
o-Chlorotoluene	10.060		"	10.233	0.0000	98.3	80.6-128			
o-Xylene	11.050		"	10.233	0.0000	108	78.6-130			
p-Chlorotoluene	10.310		"	10.233	0.0000	101	79.4-129			
p-Isopropyltoluene	11.030		"	10.233	0.0000	108	76.7-138			
sec-Butylbenzene	11.200		"	10.233	0.0000	109	79-138			
Styrene	10.710		"	10.233	0.0000	105	34.5-158			
tert-Butylbenzene	11.030		"	10.233	0.0000	108	79.5-134			
Tetrachloroethene (Tetrachloroethylene)	11.150		"	10.233	0.0000	109	66.4-149			
Toluene	10.710		"	10.233	0.0000	105	85.6-126			
trans-1,2-Dichloroethene	11.710		"	10.233	0.0000	114	86.8-128			
trans-1,3-Dichloropropene	10.160		"	10.233	0.0000	99.3	66.9-126			
Trichloroethene (Trichloroethylene)	11.180		"	10.233	0.0000	109	87.2-128			
Trichlorofluoromethane (Freon 11)	11.090		"	10.233	0.0000	108	87.3-147			
Vinyl chloride	11.450		"	10.233	0.0000	112	84.5-135			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Matrix Spike Dup (1905110-MSD1)		**Source: E192104-12**		Prepared & Analyzed: 05/23/19						
EPA 8260C										
(m- and/or p-)Xylene	22.580		ug/L	20.465	0.0000	110	81.5-138	1.16	10.3	
1,1,1,2-Tetrachloroethane	9.7300		"	10.233	0.0000	95.1	77.4-127	1.02	12.4	
1,1,1-Trichloroethane	11.500		"	10.233	0.0000	112	85.6-137	3.27	10.9	
1,1,2,2-Tetrachloroethane	9.6600		"	10.233	0.0000	94.4	78-121	2.41	13.5	
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	11.460		"	10.233	0.0000	112	87.8-141	1.94	13.6	
1,1,2-Trichloroethane	10.180		"	10.233	0.0000	99.5	83.6-119	2.89	11.2	
1,1-Dichloroethane	11.570		"	10.233	0.0000	113	87.6-126	1.66	11.3	
1,1-Dichloroethene (1,1-Dichloroethylene)	12.050		"	10.233	0.0000	118	87.5-133	4.84	12.8	
1,1-Dichloropropene	11.980		"	10.233	0.0000	117	90.2-132	0.670	11.1	
1,2,3-Trichlorobenzene	9.9900		"	10.233	0.0000	97.6	69.5-126	1.11	14.2	
1,2,3-Trichloropropane	10.180		"	10.233	0.0000	99.5	78.9-120	0.295	12.8	
1,2,4-Trichlorobenzene	9.7800		"	10.233	0.0000	95.6	67.6-125	0.102	14.3	
1,2,4-Trimethylbenzene	10.870		"	10.233	0.0000	106	57.5-147	0.461	16.9	
1,2-Dibromo-3-Chloropropane (DBCP)	19.460		"	20.465	0.0000	95.1	68.3-125	6.09	14.8	
1,2-Dibromoethane (EDB)	10.450		"	10.233	0.0000	102	83.4-119	1.25	10.7	
1,2-Dichlorobenzene	9.8800		"	10.233	0.0000	96.6	78.4-125	1.22	11	
1,2-Dichloroethane	11.070		"	10.233	0.0000	108	83.5-129	3.12	12.1	
1,2-Dichloropropane	10.960		"	10.233	0.0000	107	85.3-125	2.68	13.2	
1,3,5-Trimethylbenzene	11.170		"	10.233	0.0000	109	61.9-143	2.54	13.7	
1,3-Dichlorobenzene	9.9100		"	10.233	0.0000	96.8	79-125	3.70	11.1	
1,3-Dichloropropane	10.640		"	10.233	0.0000	104	83.6-121	1.99	10.5	
1,4-Dichlorobenzene	9.7400		"	10.233	0.0000	95.2	78.3-124	1.24	10.3	
2,2-Dichloropropane	11.620		"	10.233	0.0000	114	45.4-163	0.259	18	
Acetone	23.310		"	20.465	2.0000	104	48.2-133	6.97	18.2	
Benzene	11.170		"	10.233	0.0000	109	88.8-127	0.359	10	
Bromobenzene	10.090		"	10.233	0.0000	98.6	80.5-121	0.596	12.9	
Bromochloromethane	10.570		"	10.233	0.0000	103	82.7-126	1.33	15.3	
Bromodichloromethane	10.230		"	10.233	0.0000	100	81.1-125	0.390	12.5	
Bromoform	17.450		"	20.465	0.0000	85.3	50.7-133	3.14	21.1	
Bromomethane	4.9300		"	10.233	0.0000	48.2	33.6-168	9.56	34.4	QC-1
Carbon disulfide	13.000		"	10.233	0.61000	121	40.9-152	4.24	39.5	
Carbon Tetrachloride	11.510		"	10.233	0.0000	112	75.4-144	0.174	15.8	
Chlorobenzene	10.240		"	10.233	0.0000	100	85.5-123	1.87	10.6	
Chloroethane	13.520		"	10.233	0.0000	132	70.6-150	0.0740	34.2	
Chloroform	10.820		"	10.233	0.0000	106	87.6-128	1.12	11.4	
Chloromethane	9.5000		"	10.233	0.0000	92.8	67.3-138	0.211	29	QC-1
cis-1,2-Dichloroethene	11.540		"	10.233	0.0000	113	85.3-127	2.63	10.8	
cis-1,3-Dichloropropene	10.460		"	10.233	0.0000	102	73-125	1.35	17.1	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
Matrix Spike Dup (1905110-MSD1)		**Source: E192104-12**		Prepared & Analyzed: 05/23/19						
Cyclohexane	12.380		ug/L	10.233	0.0000	121	85.1-140	2.20	11.5	
Dibromochloromethane	9.7600		"	10.233	0.0000	95.4	67.1-128	0.205	17.7	
Dibromomethane	10.520		"	10.233	0.0000	103	83.2-124	4.27	14.2	
Dichlorodifluoromethane (Freon 12)	13.190		"	10.233	0.0000	129	71.1-152	1.60	21.6	
Ethyl Benzene	10.830		"	10.233	0.0000	106	85-130	1.30	10	
Hexachlorobutadiene	11.040		"	10.233	0.0000	108	67.2-136	7.13	15.7	
Isopropylbenzene	11.210		"	10.233	0.0000	110	82.2-134	1.62	12.7	
Methyl Acetate	22.620		"	20.465	0.0000	111	66.1-122	3.74	11.2	
Methyl Butyl Ketone	20.890		"	20.465	0.0000	102	66.9-124	3.16	13.2	
Methyl Ethyl Ketone	21.680		"	20.465	0.0000	106	60.8-127	3.38	15	
Methyl Isobutyl Ketone	21.390		"	20.465	0.0000	105	73.9-125	4.15	12	
Methyl T-Butyl Ether (MTBE)	11.070		"	10.233	0.0000	108	76.5-127	3.12	11.8	
Methylcyclohexane	12.100		"	10.233	0.0000	118	81.4-144	0.747	12.4	
Methylene Chloride	10.550		"	10.233	0.0000	103	80.7-129	0.943	14.3	
n-Butylbenzene	11.080		"	10.233	0.0000	108	74.7-136	1.91	12.1	
n-Propylbenzene	11.220		"	10.233	0.0000	110	79.7-136	2.34	11.7	
o-Chlorotoluene	10.300		"	10.233	0.0000	101	80.6-128	2.36	11.3	
o-Xylene	11.230		"	10.233	0.0000	110	78.6-130	1.62	10	
p-Chlorotoluene	10.470		"	10.233	0.0000	102	79.4-129	1.54	11.9	
p-Isopropyltoluene	11.110		"	10.233	0.0000	109	76.7-138	0.723	11.1	
sec-Butylbenzene	11.520		"	10.233	0.0000	113	79-138	2.82	10.7	
Styrene	10.900		"	10.233	0.0000	107	34.5-158	1.76	22.6	
tert-Butylbenzene	11.260		"	10.233	0.0000	110	79.5-134	2.06	11.8	
Tetrachloroethene (Tetrachloroethylene)	11.380		"	10.233	0.0000	111	66.4-149	2.04	13.4	
Toluene	10.710		"	10.233	0.0000	105	85.6-126	0.00	10	
trans-1,2-Dichloroethene	11.750		"	10.233	0.0000	115	86.8-128	0.341	11	
trans-1,3-Dichloropropene	10.320		"	10.233	0.0000	101	66.9-126	1.56	18	
Trichloroethene (Trichloroethylene)	11.580		"	10.233	0.0000	113	87.2-128	3.51	15	
Trichlorofluoromethane (Freon 11)	11.320		"	10.233	0.0000	111	87.3-147	2.05	18.7	
Vinyl chloride	11.540		"	10.233	0.0000	113	84.5-135	0.783	14.1	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
MRL Verification (1905110-PS1)				Prepared & Analyzed: 05/23/19						
EPA 8260C										
(m- and/or p-)Xylene	1.1500		ug/L	1.0000		115	71.3-137			MRL-2
1,1,1,2-Tetrachloroethane	0.61000		"	0.50000		122	56.5-148			MRL-2
1,1,1-Trichloroethane	0.59000		"	0.50000		118	59.3-146			MRL-2
1,1,2,2-Tetrachloroethane	0.62000		"	0.50000		124	60.2-138			MRL-2
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.54000		"	0.50000		108	60-144			MRL-2
1,1,2-Trichloroethane	0.65000		"	0.50000		130	67.1-131			MRL-2
1,1-Dichloroethane	0.59000		"	0.50000		118	67.8-133			MRL-2
1,1-Dichloroethene (1,1-Dichloroethylene)	0.58000		"	0.50000		116	65.4-136			MRL-2
1,1-Dichloropropene	0.55000		"	0.50000		110	69.4-135			MRL-2
1,2,3-Trichlorobenzene	0.57000		"	0.50000		114	65-137			MRL-2
1,2,3-Trichloropropane	0.66000		"	0.50000		132	63.4-134			MRL-2
1,2,4-Trichlorobenzene	0.55000		"	0.50000		110	63.9-137			MRL-2
1,2,4-Trimethylbenzene	0.48000		"	0.50000		96.0	66.5-141			MRL-2
1,2-Dibromo-3-Chloropropane (DBCP)	1.0500		"	1.0000		105	52.3-156			MRL-2
1,2-Dibromoethane (EDB)	0.64000		"	0.50000		128	67.3-135			MRL-2
1,2-Dichlorobenzene	0.60000		"	0.50000		120	66.4-131			MRL-2
1,2-Dichloroethane	0.66000		"	0.50000		132	63.9-142			MRL-2
1,2-Dichloropropane	0.63000		"	0.50000		126	68-133			MRL-2
1,3,5-Trimethylbenzene	0.52000		"	0.50000		104	66.8-139			MRL-2
1,3-Dichlorobenzene	0.58000		"	0.50000		116	66.4-132			MRL-2
1,3-Dichloropropane	0.65000		"	0.50000		130	67.4-133			MRL-2
1,4-Dichlorobenzene	0.67000		"	0.50000		134	66.5-130			MRL-2, QR-2
2,2-Dichloropropane	0.59000		"	0.50000		118	33.4-174			MRL-2
Acetone	1.4400		"	1.0000		144	29.7-173			
Benzene	0.61000		"	0.50000		122	69.6-133			MRL-2
Bromobenzene	0.68000		"	0.50000		136	64.6-132			MRL-2, QR-2
Bromochloromethane	0.58000		"	0.50000		116	63.6-137			MRL-2
Bromodichloromethane	0.64000		"	0.50000		128	60-145			MRL-2
Bromoform	0.96000		"	1.0000		96.0	43.1-162			MRL-2
Bromomethane	0.13000		"	0.50000		26.0	29.9-160			QC-1
Carbon disulfide	0.65000		"	0.50000		130	61.7-134			
Carbon Tetrachloride	0.60000		"	0.50000		120	48.8-160			MRL-2
Chlorobenzene	0.68000		"	0.50000		136	68.4-129			MRL-2, QR-2
Chloroethane	0.64000		"	0.50000		128	56.7-138			
Chloroform	0.64000		"	0.50000		128	67.9-135			MRL-2
Chloromethane	0.51000		"	0.50000		102	48.9-138			MRL-2, QC-1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905110 - V 5030B VOA Wtr Prep										
MRL Verification (1905110-PS1)				Prepared & Analyzed: 05/23/19						
cis-1,2-Dichloroethene	0.59000		ug/L	0.50000		118	67.6-135			MRL-2
cis-1,3-Dichloropropene	0.55000		"	0.50000		110	61-141			MRL-2
Cyclohexane	0.56000		"	0.50000		112	63.5-142			MRL-2
Dibromochloromethane	0.53000		"	0.50000		106	51.7-153			MRL-2
Dibromomethane	0.60000		"	0.50000		120	67.3-137			MRL-2
Dichlorodifluoromethane (Freon 12)	0.68000		"	0.50000		136	43.5-152			MRL-2
Ethyl Benzene	0.59000		"	0.50000		118	70-134			MRL-2
Hexachlorobutadiene	0.61000		"	0.50000		122	60.2-136			MRL-2
Isopropylbenzene	0.53000		"	0.50000		106	64.5-140			MRL-2
Methyl Acetate	1.1000		"	1.0000		110	55.8-141			MRL-2
Methyl Butyl Ketone	0.96000		"	1.0000		96.0	49.9-156			MRL-2
Methyl Ethyl Ketone	0.92000		"	1.0000		92.0	48.1-155			
Methyl Isobutyl Ketone	1.0700		"	1.0000		107	57-147			MRL-2
Methyl T-Butyl Ether (MTBE)	0.59000		"	0.50000		118	60.1-143			MRL-2
Methylcyclohexane	0.57000		"	0.50000		114	62.6-144			MRL-2
Methylene Chloride	0.58000		"	0.50000		116	61.2-138			MRL-2
n-Butylbenzene	0.51000		"	0.50000		102	65.7-141			MRL-2
n-Propylbenzene	0.58000		"	0.50000		116	67-137			MRL-2
o-Chlorotoluene	0.58000		"	0.50000		116	65.8-134			MRL-2
o-Xylene	0.58000		"	0.50000		116	68.9-136			MRL-2
p-Chlorotoluene	0.56000		"	0.50000		112	66.5-134			MRL-2
p-Isopropyltoluene	0.48000		"	0.50000		96.0	66.3-143			MRL-2
sec-Butylbenzene	0.49000		"	0.50000		98.0	66.2-140			MRL-2
Styrene	0.52000		"	0.50000		104	69.9-139			MRL-2
tert-Butylbenzene	0.52000		"	0.50000		104	65.2-139			MRL-2
Tetrachloroethene (Tetrachloroethylene)	0.62000		"	0.50000		124	65.1-133			MRL-2
Toluene	0.59000		"	0.50000		118	67.7-131			MRL-2
trans-1,2-Dichloroethene	0.58000		"	0.50000		116	66.6-134			MRL-2
trans-1,3-Dichloropropene	0.54000		"	0.50000		108	57.4-147			MRL-2
Trichloroethene (Trichloroethylene)	0.60000		"	0.50000		120	67.8-134			MRL-2
Trichlorofluoromethane (Freon 11)	0.56000		"	0.50000		112	58-149			MRL-2
Vinyl chloride	0.55000		"	0.50000		110	58.8-135			MRL-2

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Blank (1905113-BLK1)				Prepared & Analyzed: 05/24/19						
EPA 8260C										
(m- and/or p-)Xylene	U	1.0	ug/L							U
1,1,1,2-Tetrachloroethane	U	0.50	"							U
1,1,1-Trichloroethane	U	0.50	"							U
1,1,2,2-Tetrachloroethane	U	0.50	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	0.50	"							U
1,1,2-Trichloroethane	U	0.50	"							U
1,1-Dichloroethane	U	0.50	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	0.50	"							U
1,1-Dichloropropene	U	0.50	"							U
1,2,3-Trichlorobenzene	U	0.50	"							U
1,2,3-Trichloropropane	U	0.50	"							U
1,2,4-Trichlorobenzene	U	0.50	"							U
1,2,4-Trimethylbenzene	U	0.50	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	1.0	"							U
1,2-Dibromoethane (EDB)	U	0.50	"							U
1,2-Dichlorobenzene	U	0.50	"							U
1,2-Dichloroethane	U	0.50	"							U
1,2-Dichloropropane	U	0.50	"							U
1,3,5-Trimethylbenzene	U	0.50	"							U
1,3-Dichlorobenzene	U	0.50	"							U
1,3-Dichloropropane	U	0.50	"							U
1,4-Dichlorobenzene	U	0.50	"							U
2,2-Dichloropropane	U	0.50	"							U
Acetone	U	4.0	"							U
Benzene	U	0.50	"							U
Bromobenzene	U	0.50	"							U
Bromochloromethane	U	0.50	"							U
Bromodichloromethane	U	0.50	"							U
Bromoform	U	1.0	"							QC-1, U
Bromomethane	U	2.0	"							QC-1, U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	0.50	"							U
Chlorobenzene	U	0.50	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	0.50	"							U
Chloromethane	U	0.50	"							U
cis-1,2-Dichloroethene	U	0.50	"							U
cis-1,3-Dichloropropene	U	0.50	"							U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Blank (1905113-BLK1)				Prepared & Analyzed: 05/24/19						
Cyclohexane	U	0.50	ug/L							U
Dibromochloromethane	U	0.50	"							U
Dibromomethane	U	0.50	"							U
Dichlorodifluoromethane (Freon 12)	U	0.50	"							U
Ethyl Benzene	U	0.50	"							U
Hexachlorobutadiene	U	0.50	"							U
Isopropylbenzene	U	0.50	"							U
Methyl Acetate	U	1.0	"							U
Methyl Butyl Ketone	U	1.0	"							U
Methyl Ethyl Ketone	U	4.0	"							U
Methyl Isobutyl Ketone	U	1.0	"							U
Methyl T-Butyl Ether (MTBE)	U	0.50	"							U
Methylcyclohexane	U	0.50	"							U
Methylene Chloride	U	0.50	"							U
n-Butylbenzene	U	0.50	"							U
n-Propylbenzene	U	0.50	"							U
o-Chlorotoluene	U	0.50	"							U
o-Xylene	U	0.50	"							U
p-Chlorotoluene	U	0.50	"							U
p-Isopropyltoluene	U	0.50	"							U
sec-Butylbenzene	U	0.50	"							U
Styrene	U	0.50	"							U
tert-Butylbenzene	U	0.50	"							U
Tetrachloroethene (Tetrachloroethylene)	U	0.50	"							U
Toluene	U	0.50	"							U
trans-1,2-Dichloroethene	U	0.50	"							U
trans-1,3-Dichloropropene	U	0.50	"							U
Trichloroethene (Trichloroethylene)	U	0.50	"							U
Trichlorofluoromethane (Freon 11)	U	0.50	"							U
Vinyl chloride	U	0.50	"							U
Tentatively Identified Compounds	U	10	"							U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
LCS (1905113-BS1)				Prepared & Analyzed: 05/24/19						
EPA 8260C										
(m- and/or p-)Xylene	40.030		ug/L	40.000		100	91.3-117			
1,1,1,2-Tetrachloroethane	18.150		"	20.000		90.8	76.5-128			
1,1,1-Trichloroethane	19.540		"	20.000		97.7	79.3-126			
1,1,2,2-Tetrachloroethane	16.900		"	20.000		84.5	80.2-118			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	19.690		"	20.000		98.4	80-124			
1,1,2-Trichloroethane	17.960		"	20.000		89.8	87.1-111			
1,1-Dichloroethane	19.800		"	20.000		99.0	87.8-113			
1,1-Dichloroethene (1,1-Dichloroethylene)	20.610		"	20.000		103	85.4-116			
1,1-Dichloropropene	20.760		"	20.000		104	89.4-115			
1,2,3-Trichlorobenzene	18.350		"	20.000		91.8	85-117			
1,2,3-Trichloropropane	17.430		"	20.000		87.2	83.4-114			
1,2,4-Trichlorobenzene	18.100		"	20.000		90.5	83.9-117			
1,2,4-Trimethylbenzene	19.290		"	20.000		96.4	86.5-121			
1,2-Dibromo-3-Chloropropane (DBCP)	33.600		"	40.000		84.0	72.3-136			
1,2-Dibromoethane (EDB)	18.810		"	20.000		94.0	87.3-115			
1,2-Dichlorobenzene	17.360		"	20.000		86.8	86.4-111			
1,2-Dichloroethane	19.100		"	20.000		95.5	83.9-122			
1,2-Dichloropropane	19.050		"	20.000		95.2	88-113			
1,3,5-Trimethylbenzene	19.810		"	20.000		99.0	86.8-119			
1,3-Dichlorobenzene	17.420		"	20.000		87.1	86.4-112			
1,3-Dichloropropane	18.790		"	20.000		94.0	87.4-113			
1,4-Dichlorobenzene	17.230		"	20.000		86.2	86.5-110			QL-1
2,2-Dichloropropane	21.300		"	20.000		106	53.4-154			
Acetone	34.730		"	40.000		86.8	49.7-153			
Benzene	19.460		"	20.000		97.3	89.6-113			
Bromobenzene	17.970		"	20.000		89.8	84.6-112			
Bromochloromethane	19.010		"	20.000		95.0	83.6-117			
Bromodichloromethane	18.130		"	20.000		90.6	80-125			
Bromoform	31.570		"	40.000		78.9	63.1-142			QC-1
Bromomethane	8.1400		"	20.000		40.7	49.9-140			QC-1, QL-1
Carbon disulfide	20.800		"	20.000		104	81.7-114			
Carbon Tetrachloride	19.850		"	20.000		99.2	68.8-140			
Chlorobenzene	17.590		"	20.000		88.0	88.4-109			QL-1
Chloroethane	23.530		"	20.000		118	76.7-118			
Chloroform	18.560		"	20.000		92.8	87.9-115			
Chloromethane	16.010		"	20.000		80.0	68.9-118			
cis-1,2-Dichloroethene	20.040		"	20.000		100	87.6-115			
cis-1,3-Dichloropropene	19.190		"	20.000		96.0	81-121			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
LCS (1905113-BS1)				Prepared & Analyzed: 05/24/19						
Cyclohexane	21.770		ug/L	20.000		109	83.5-122			
Dibromochloromethane	18.160		"	20.000		90.8	71.7-133			
Dibromomethane	18.010		"	20.000		90.0	87.3-117			
Dichlorodifluoromethane (Freon 12)	22.600		"	20.000		113	63.5-132			
Ethyl Benzene	19.200		"	20.000		96.0	90-114			
Hexachlorobutadiene	19.200		"	20.000		96.0	80.2-116			
Isopropylbenzene	19.680		"	20.000		98.4	84.5-120			
Methyl Acetate	38.460		"	40.000		96.2	75.8-121			
Methyl Butyl Ketone	36.930		"	40.000		92.3	69.9-136			
Methyl Ethyl Ketone	36.100		"	40.000		90.2	68.1-135			
Methyl Isobutyl Ketone	37.830		"	40.000		94.6	77-127			
Methyl T-Butyl Ether (MTBE)	19.730		"	20.000		98.6	80.1-123			
Methylcyclohexane	21.480		"	20.000		107	82.6-124			
Methylene Chloride	18.430		"	20.000		92.2	81.2-118			
n-Butylbenzene	20.250		"	20.000		101	85.7-121			
n-Propylbenzene	19.640		"	20.000		98.2	87-117			
o-Chlorotoluene	18.140		"	20.000		90.7	85.8-114			
o-Xylene	20.120		"	20.000		101	88.9-116			
p-Chlorotoluene	18.230		"	20.000		91.2	86.5-114			
p-Isopropyltoluene	20.030		"	20.000		100	86.3-123			
sec-Butylbenzene	20.410		"	20.000		102	86.2-120			
Styrene	19.790		"	20.000		99.0	89.9-119			
tert-Butylbenzene	20.030		"	20.000		100	85.2-119			
Tetrachloroethene (Tetrachloroethylene)	19.660		"	20.000		98.3	85.1-113			
Toluene	18.840		"	20.000		94.2	87.7-111			
trans-1,2-Dichloroethene	20.670		"	20.000		103	86.6-114			
trans-1,3-Dichloropropene	19.030		"	20.000		95.2	77.4-127			
Trichloroethene (Trichloroethylene)	19.300		"	20.000		96.5	87.8-114			
Trichlorofluoromethane (Freon 11)	19.150		"	20.000		95.8	78-129			
Vinyl chloride	19.550		"	20.000		97.8	78.8-115			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Matrix Spike (1905113-MS1)		**Source: E192105-06**		Prepared & Analyzed: 05/24/19						
EPA 8260C										
(m- and/or p-)Xylene	22.050		ug/L	20.465	0.0000	108	81.5-138			
1,1,1,2-Tetrachloroethane	9.9600		"	10.233	0.0000	97.3	77.4-127			
1,1,1-Trichloroethane	11.270		"	10.233	0.0000	110	85.6-137			
1,1,2,2-Tetrachloroethane	9.2700		"	10.233	0.0000	90.6	78-121			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	11.750		"	10.233	0.0000	115	87.8-141			
1,1,2-Trichloroethane	9.9700		"	10.233	0.0000	97.4	83.6-119			
1,1-Dichloroethane	11.530		"	10.233	0.0000	113	87.6-126			
1,1-Dichloroethene (1,1-Dichloroethylene)	11.900		"	10.233	0.0000	116	87.5-133			
1,1-Dichloropropene	12.020		"	10.233	0.0000	117	90.2-132			
1,2,3-Trichlorobenzene	9.8300		"	10.233	0.0000	96.1	69.5-126			
1,2,3-Trichloropropane	9.7300		"	10.233	0.0000	95.1	78.9-120			
1,2,4-Trichlorobenzene	9.3700		"	10.233	0.0000	91.6	67.6-125			
1,2,4-Trimethylbenzene	10.760		"	10.233	0.0000	105	57.5-147			
1,2-Dibromo-3-Chloropropane (DBCP)	18.510		"	20.465	0.0000	90.4	68.3-125			
1,2-Dibromoethane (EDB)	10.120		"	10.233	0.0000	98.9	83.4-119			
1,2-Dichlorobenzene	9.6800		"	10.233	0.0000	94.6	78.4-125			
1,2-Dichloroethane	11.060		"	10.233	0.0000	108	83.5-129			
1,2-Dichloropropane	10.950		"	10.233	0.0000	107	85.3-125			
1,3,5-Trimethylbenzene	11.060		"	10.233	0.0000	108	61.9-143			
1,3-Dichlorobenzene	9.6800		"	10.233	0.0000	94.6	79-125			
1,3-Dichloropropane	10.400		"	10.233	0.0000	102	83.6-121			
1,4-Dichlorobenzene	9.5500		"	10.233	0.0000	93.3	78.3-124			
2,2-Dichloropropane	12.020		"	10.233	0.0000	117	45.4-163			
Acetone	20.370		"	20.465	2.3800	87.9	48.2-133			
Benzene	11.110		"	10.233	0.0000	109	88.8-127			
Bromobenzene	10.030		"	10.233	0.0000	98.0	80.5-121			
Bromochloromethane	10.980		"	10.233	0.0000	107	82.7-126			
Bromodichloromethane	10.070		"	10.233	0.0000	98.4	81.1-125			
Bromoform	17.060		"	20.465	0.0000	83.4	50.7-133			QC-1
Bromomethane	5.1800		"	10.233	0.0000	50.6	33.6-168			QC-1
Carbon disulfide	12.210		"	10.233	0.65000	113	40.9-152			
Carbon Tetrachloride	11.740		"	10.233	0.0000	115	75.4-144			
Chlorobenzene	10.000		"	10.233	0.0000	97.7	85.5-123			
Chloroethane	13.600		"	10.233	0.0000	133	70.6-150			
Chloroform	10.690		"	10.233	0.0000	104	87.6-128			
Chloromethane	9.6700		"	10.233	0.0000	94.5	67.3-138			
cis-1,2-Dichloroethene	11.670		"	10.233	0.0000	114	85.3-127			
cis-1,3-Dichloropropene	10.230		"	10.233	0.0000	100	73-125			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Matrix Spike (1905113-MS1)		**Source: E192105-06**		Prepared & Analyzed: 05/24/19						
Cyclohexane	12.460		ug/L	10.233	0.0000	122	85.1-140			
Dibromochloromethane	9.6700		"	10.233	0.0000	94.5	67.1-128			
Dibromomethane	10.090		"	10.233	0.0000	98.6	83.2-124			
Dichlorodifluoromethane (Freon 12)	13.230		"	10.233	0.0000	129	71.1-152			
Ethyl Benzene	10.580		"	10.233	0.0000	103	85-130			
Hexachlorobutadiene	10.400		"	10.233	0.0000	102	67.2-136			
Isopropylbenzene	11.030		"	10.233	0.0000	108	82.2-134			
Methyl Acetate	20.860		"	20.465	0.0000	102	66.1-122			
Methyl Butyl Ketone	18.930		"	20.465	0.0000	92.5	66.9-124			
Methyl Ethyl Ketone	19.740		"	20.465	0.0000	96.5	60.8-127			
Methyl Isobutyl Ketone	19.810		"	20.465	0.0000	96.8	73.9-125			
Methyl T-Butyl Ether (MTBE)	10.740		"	10.233	0.0000	105	76.5-127			
Methylcyclohexane	12.370		"	10.233	0.0000	121	81.4-144			
Methylene Chloride	10.530		"	10.233	0.0000	103	80.7-129			
n-Butylbenzene	10.900		"	10.233	0.0000	107	74.7-136			
n-Propylbenzene	10.970		"	10.233	0.0000	107	79.7-136			
o-Chlorotoluene	10.190		"	10.233	0.0000	99.6	80.6-128			
o-Xylene	10.980		"	10.233	0.0000	107	78.6-130			
p-Chlorotoluene	10.250		"	10.233	0.0000	100	79.4-129			
p-Isopropyltoluene	11.100		"	10.233	0.0000	108	76.7-138			
sec-Butylbenzene	11.440		"	10.233	0.0000	112	79-138			
Styrene	10.670		"	10.233	0.0000	104	34.5-158			
tert-Butylbenzene	11.190		"	10.233	0.0000	109	79.5-134			
Tetrachloroethene (Tetrachloroethylene)	11.220		"	10.233	0.0000	110	66.4-149			
Toluene	10.540		"	10.233	0.0000	103	85.6-126			
trans-1,2-Dichloroethene	11.690		"	10.233	0.0000	114	86.8-128			
trans-1,3-Dichloropropene	10.240		"	10.233	0.0000	100	66.9-126			
Trichloroethene (Trichloroethylene)	11.340		"	10.233	0.0000	111	87.2-128			
Trichlorofluoromethane (Freon 11)	11.300		"	10.233	0.0000	110	87.3-147			
Vinyl chloride	11.640		"	10.233	0.0000	114	84.5-135			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Matrix Spike Dup (1905113-MSD1)		**Source: E192105-06**		Prepared & Analyzed: 05/24/19						
EPA 8260C										
(m- and/or p-)Xylene	22.430		ug/L	20.465	0.0000	110	81.5-138	1.71	10.3	
1,1,1,2-Tetrachloroethane	9.8000		"	10.233	0.0000	95.8	77.4-127	1.62	12.4	
1,1,1-Trichloroethane	11.200		"	10.233	0.0000	109	85.6-137	0.623	10.9	
1,1,2,2-Tetrachloroethane	9.4000		"	10.233	0.0000	91.9	78-121	1.39	13.5	
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	11.300		"	10.233	0.0000	110	87.8-141	3.90	13.6	
1,1,2-Trichloroethane	10.120		"	10.233	0.0000	98.9	83.6-119	1.49	11.2	
1,1-Dichloroethane	11.280		"	10.233	0.0000	110	87.6-126	2.19	11.3	
1,1-Dichloroethene (1,1-Dichloroethylene)	11.610		"	10.233	0.0000	113	87.5-133	2.47	12.8	
1,1-Dichloropropene	11.810		"	10.233	0.0000	115	90.2-132	1.76	11.1	
1,2,3-Trichlorobenzene	10.060		"	10.233	0.0000	98.3	69.5-126	2.31	14.2	
1,2,3-Trichloropropane	9.8500		"	10.233	0.0000	96.3	78.9-120	1.23	12.8	
1,2,4-Trichlorobenzene	9.8200		"	10.233	0.0000	96.0	67.6-125	4.69	14.3	
1,2,4-Trimethylbenzene	10.700		"	10.233	0.0000	105	57.5-147	0.559	16.9	
1,2-Dibromo-3-Chloropropane (DBCP)	18.360		"	20.465	0.0000	89.7	68.3-125	0.814	14.8	
1,2-Dibromoethane (EDB)	10.380		"	10.233	0.0000	101	83.4-119	2.54	10.7	
1,2-Dichlorobenzene	9.8300		"	10.233	0.0000	96.1	78.4-125	1.54	11	
1,2-Dichloroethane	10.770		"	10.233	0.0000	105	83.5-129	2.66	12.1	
1,2-Dichloropropane	10.840		"	10.233	0.0000	106	85.3-125	1.01	13.2	
1,3,5-Trimethylbenzene	11.020		"	10.233	0.0000	108	61.9-143	0.362	13.7	
1,3-Dichlorobenzene	9.6900		"	10.233	0.0000	94.7	79-125	0.103	11.1	
1,3-Dichloropropane	10.500		"	10.233	0.0000	103	83.6-121	0.957	10.5	
1,4-Dichlorobenzene	9.6200		"	10.233	0.0000	94.0	78.3-124	0.730	10.3	
2,2-Dichloropropane	11.700		"	10.233	0.0000	114	45.4-163	2.70	18	
Acetone	22.900		"	20.465	2.3800	100	48.2-133	11.7	18.2	
Benzene	11.040		"	10.233	0.0000	108	88.8-127	0.632	10	
Bromobenzene	9.9400		"	10.233	0.0000	97.1	80.5-121	0.901	12.9	
Bromochloromethane	10.360		"	10.233	0.0000	101	82.7-126	5.81	15.3	
Bromodichloromethane	10.010		"	10.233	0.0000	97.8	81.1-125	0.598	12.5	
Bromoform	17.140		"	20.465	0.0000	83.8	50.7-133	0.468	21.1	QC-1
Bromomethane	5.0400		"	10.233	0.0000	49.3	33.6-168	2.74	34.4	QC-1
Carbon disulfide	12.860		"	10.233	0.65000	119	40.9-152	5.19	39.5	
Carbon Tetrachloride	11.330		"	10.233	0.0000	111	75.4-144	3.55	15.8	
Chlorobenzene	9.9600		"	10.233	0.0000	97.3	85.5-123	0.401	10.6	
Chloroethane	13.300		"	10.233	0.0000	130	70.6-150	2.23	34.2	
Chloroform	10.550		"	10.233	0.0000	103	87.6-128	1.32	11.4	
Chloromethane	9.3000		"	10.233	0.0000	90.9	67.3-138	3.90	29	
cis-1,2-Dichloroethene	11.360		"	10.233	0.0000	111	85.3-127	2.69	10.8	
cis-1,3-Dichloropropene	10.260		"	10.233	0.0000	100	73-125	0.293	17.1	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
Matrix Spike Dup (1905113-MSD1)		**Source: E192105-06**		Prepared & Analyzed: 05/24/19						
Cyclohexane	12.300		ug/L	10.233	0.0000	120	85.1-140	1.29	11.5	
Dibromochloromethane	9.7700		"	10.233	0.0000	95.5	67.1-128	1.03	17.7	
Dibromomethane	9.9600		"	10.233	0.0000	97.3	83.2-124	1.30	14.2	
Dichlorodifluoromethane (Freon 12)	12.730		"	10.233	0.0000	124	71.1-152	3.85	21.6	
Ethyl Benzene	10.730		"	10.233	0.0000	105	85-130	1.41	10	
Hexachlorobutadiene	10.730		"	10.233	0.0000	105	67.2-136	3.12	15.7	
Isopropylbenzene	11.010		"	10.233	0.0000	108	82.2-134	0.181	12.7	
Methyl Acetate	21.520		"	20.465	0.0000	105	66.1-122	3.11	11.2	
Methyl Butyl Ketone	20.090		"	20.465	0.0000	98.2	66.9-124	5.95	13.2	
Methyl Ethyl Ketone	20.490		"	20.465	0.0000	100	60.8-127	3.73	15	
Methyl Isobutyl Ketone	20.540		"	20.465	0.0000	100	73.9-125	3.62	12	
Methyl T-Butyl Ether (MTBE)	10.620		"	10.233	0.0000	104	76.5-127	1.12	11.8	
Methylcyclohexane	12.130		"	10.233	0.0000	119	81.4-144	1.96	12.4	
Methylene Chloride	10.270		"	10.233	0.0000	100	80.7-129	2.50	14.3	
n-Butylbenzene	10.980		"	10.233	0.0000	107	74.7-136	0.731	12.1	
n-Propylbenzene	11.030		"	10.233	0.0000	108	79.7-136	0.545	11.7	
o-Chlorotoluene	10.170		"	10.233	0.0000	99.4	80.6-128	0.196	11.3	
o-Xylene	10.920		"	10.233	0.0000	107	78.6-130	0.548	10	
p-Chlorotoluene	10.280		"	10.233	0.0000	100	79.4-129	0.292	11.9	
p-Isopropyltoluene	11.160		"	10.233	0.0000	109	76.7-138	0.539	11.1	
sec-Butylbenzene	11.360		"	10.233	0.0000	111	79-138	0.702	10.7	
Styrene	10.740		"	10.233	0.0000	105	34.5-158	0.654	22.6	
tert-Butylbenzene	11.150		"	10.233	0.0000	109	79.5-134	0.358	11.8	
Tetrachloroethene (Tetrachloroethylene)	11.380		"	10.233	0.0000	111	66.4-149	1.42	13.4	
Toluene	10.600		"	10.233	0.0000	104	85.6-126	0.568	10	
trans-1,2-Dichloroethene	11.580		"	10.233	0.0000	113	86.8-128	0.945	11	
trans-1,3-Dichloropropene	10.100		"	10.233	0.0000	98.7	66.9-126	1.38	18	
Trichloroethene (Trichloroethylene)	11.090		"	10.233	0.0000	108	87.2-128	2.23	15	
Trichlorofluoromethane (Freon 11)	11.050		"	10.233	0.0000	108	87.3-147	2.24	18.7	
Vinyl chloride	11.230		"	10.233	0.0000	110	84.5-135	3.59	14.1	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
MRL Verification (1905113-PS1)				Prepared & Analyzed: 05/24/19						
EPA 8260C										
(m- and/or p-)Xylene	4.0700		ug/L	4.0000		102	71.3-137			
1,1,1,2-Tetrachloroethane	1.8800		"	2.0000		94.0	56.5-148			
1,1,1-Trichloroethane	2.1300		"	2.0000		106	59.3-146			
1,1,2,2-Tetrachloroethane	1.9500		"	2.0000		97.5	60.2-138			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	2.0900		"	2.0000		104	60-144			
1,1,2-Trichloroethane	2.0400		"	2.0000		102	67.1-131			
1,1-Dichloroethane	2.0900		"	2.0000		104	67.8-133			
1,1-Dichloroethene (1,1-Dichloroethylene)	2.1300		"	2.0000		106	65.4-136			
1,1-Dichloropropene	2.0000		"	2.0000		100	69.4-135			
1,2,3-Trichlorobenzene	1.6800		"	2.0000		84.0	65-137			
1,2,3-Trichloropropane	2.1800		"	2.0000		109	63.4-134			
1,2,4-Trichlorobenzene	1.7400		"	2.0000		87.0	63.9-137			
1,2,4-Trimethylbenzene	1.7800		"	2.0000		89.0	66.5-141			
1,2-Dibromo-3-Chloropropane (DBCP)	3.8600		"	4.0000		96.5	52.3-156			
1,2-Dibromoethane (EDB)	1.9900		"	2.0000		99.5	67.3-135			
1,2-Dichlorobenzene	1.9500		"	2.0000		97.5	66.4-131			
1,2-Dichloroethane	2.1200		"	2.0000		106	63.9-142			
1,2-Dichloropropane	2.0400		"	2.0000		102	68-133			
1,3,5-Trimethylbenzene	1.8800		"	2.0000		94.0	66.8-139			
1,3-Dichlorobenzene	1.9500		"	2.0000		97.5	66.4-132			
1,3-Dichloropropane	2.0400		"	2.0000		102	67.4-133			
1,4-Dichlorobenzene	2.0100		"	2.0000		100	66.5-130			
2,2-Dichloropropane	2.0800		"	2.0000		104	33.4-174			
Acetone	4.0600		"	4.0000		102	29.7-173			MRL-2
Benzene	2.0700		"	2.0000		104	69.6-133			
Bromobenzene	1.9700		"	2.0000		98.5	64.6-132			
Bromochloromethane	1.9600		"	2.0000		98.0	63.6-137			
Bromodichloromethane	1.9400		"	2.0000		97.0	60-145			
Bromoform	3.2600		"	4.0000		81.5	43.1-162			QC-1
Bromomethane	0.58000		"	2.0000		29.0	29.9-160			MRL-2, QC-1, QR-1
Carbon disulfide	2.1700		"	2.0000		108	61.7-134			MRL-2
Carbon Tetrachloride	2.1500		"	2.0000		108	48.8-160			
Chlorobenzene	2.0100		"	2.0000		100	68.4-129			
Chloroethane	2.4100		"	2.0000		120	56.7-138			MRL-2
Chloroform	2.0400		"	2.0000		102	67.9-135			
Chloromethane	1.6700		"	2.0000		83.5	48.9-138			
cis-1,2-Dichloroethene	1.9400		"	2.0000		97.0	67.6-135			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905113 - V 5030B VOA Wtr Prep										
MRL Verification (1905113-PS1)				Prepared & Analyzed: 05/24/19						
cis-1,3-Dichloropropene	1.9400		ug/L	2.0000		97.0	61-141			
Cyclohexane	2.0000		"	2.0000		100	63.5-142			
Dibromochloromethane	1.8900		"	2.0000		94.5	51.7-153			
Dibromomethane	2.0000		"	2.0000		100	67.3-137			
Dichlorodifluoromethane (Freon 12)	2.4000		"	2.0000		120	43.5-152			
Ethyl Benzene	1.9700		"	2.0000		98.5	70-134			
Hexachlorobutadiene	1.8800		"	2.0000		94.0	60.2-136			
Isopropylbenzene	1.8900		"	2.0000		94.5	64.5-140			
Methyl Acetate	4.1200		"	4.0000		103	55.8-141			
Methyl Butyl Ketone	3.6300		"	4.0000		90.8	49.9-156			
Methyl Ethyl Ketone	3.8700		"	4.0000		96.8	48.1-155			MRL-2
Methyl Isobutyl Ketone	3.4700		"	4.0000		86.8	57-147			
Methyl T-Butyl Ether (MTBE)	1.9000		"	2.0000		95.0	60.1-143			
Methylcyclohexane	2.0500		"	2.0000		102	62.6-144			
Methylene Chloride	2.0200		"	2.0000		101	61.2-138			
n-Butylbenzene	1.8400		"	2.0000		92.0	65.7-141			
n-Propylbenzene	1.9300		"	2.0000		96.5	67-137			
o-Chlorotoluene	1.9600		"	2.0000		98.0	65.8-134			
o-Xylene	1.9900		"	2.0000		99.5	68.9-136			
p-Chlorotoluene	1.9500		"	2.0000		97.5	66.5-134			
p-Isopropyltoluene	1.8500		"	2.0000		92.5	66.3-143			
sec-Butylbenzene	1.9700		"	2.0000		98.5	66.2-140			
Styrene	1.7400		"	2.0000		87.0	69.9-139			
tert-Butylbenzene	1.8900		"	2.0000		94.5	65.2-139			
Tetrachloroethene (Tetrachloroethylene)	2.1300		"	2.0000		106	65.1-133			
Toluene	2.0100		"	2.0000		100	67.7-131			
trans-1,2-Dichloroethene	2.0500		"	2.0000		102	66.6-134			
trans-1,3-Dichloropropene	1.8300		"	2.0000		91.5	57.4-147			
Trichloroethene (Trichloroethylene)	2.1500		"	2.0000		108	67.8-134			
Trichlorofluoromethane (Freon 11)	1.9600		"	2.0000		98.0	58-149			
Vinyl chloride	2.0800		"	2.0000		104	58.8-135			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
Blank (1905122-BLK1)				Prepared & Analyzed: 05/28/19						
EPA 8260C										
(m- and/or p-)Xylene	U	1.0	ug/L							U
1,1,1,2-Tetrachloroethane	U	0.50	"							U
1,1,1-Trichloroethane	U	0.50	"							U
1,1,2,2-Tetrachloroethane	U	0.50	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	0.50	"							U
1,1,2-Trichloroethane	U	0.50	"							U
1,1-Dichloroethane	U	0.50	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	0.50	"							U
1,1-Dichloropropene	U	0.50	"							U
1,2,3-Trichlorobenzene	U	0.50	"							U
1,2,3-Trichloropropane	U	0.50	"							U
1,2,4-Trichlorobenzene	U	0.50	"							U
1,2,4-Trimethylbenzene	U	0.50	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	1.0	"							U
1,2-Dibromoethane (EDB)	U	0.50	"							U
1,2-Dichlorobenzene	U	0.50	"							U
1,2-Dichloroethane	U	0.50	"							U
1,2-Dichloropropane	U	0.50	"							U
1,3,5-Trimethylbenzene	U	0.50	"							U
1,3-Dichlorobenzene	U	0.50	"							U
1,3-Dichloropropane	U	0.50	"							U
1,4-Dichlorobenzene	U	0.50	"							U
2,2-Dichloropropane	U	0.50	"							U
Acetone	U	4.0	"							U
Benzene	U	0.50	"							U
Bromobenzene	U	0.50	"							U
Bromochloromethane	U	0.50	"							U
Bromodichloromethane	U	0.50	"							U
Bromoform	U	1.0	"							U
Bromomethane	U	2.0	"							QC-1, U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	0.50	"							U
Chlorobenzene	U	0.50	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	0.50	"							U
Chloromethane	U	0.50	"							U
cis-1,2-Dichloroethene	U	0.50	"							U
cis-1,3-Dichloropropene	U	0.50	"							U

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Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
Blank (1905122-BLK1)				Prepared & Analyzed: 05/28/19						
Cyclohexane	U	0.50	ug/L							U
Dibromochloromethane	U	0.50	"							U
Dibromomethane	U	0.50	"							U
Dichlorodifluoromethane (Freon 12)	U	0.50	"							U
Ethyl Benzene	U	0.50	"							U
Hexachlorobutadiene	U	0.50	"							U
Isopropylbenzene	U	0.50	"							U
Methyl Acetate	U	1.0	"							U
Methyl Butyl Ketone	U	1.0	"							U
Methyl Ethyl Ketone	U	4.0	"							U
Methyl Isobutyl Ketone	U	1.0	"							U
Methyl T-Butyl Ether (MTBE)	U	0.50	"							U
Methylcyclohexane	U	0.50	"							U
Methylene Chloride	U	0.50	"							U
n-Butylbenzene	U	0.50	"							U
n-Propylbenzene	U	0.50	"							U
o-Chlorotoluene	U	0.50	"							U
o-Xylene	U	0.50	"							U
p-Chlorotoluene	U	0.50	"							U
p-Isopropyltoluene	U	0.50	"							U
sec-Butylbenzene	U	0.50	"							U
Styrene	U	0.50	"							U
tert-Butylbenzene	U	0.50	"							U
Tetrachloroethene (Tetrachloroethylene)	U	0.50	"							U
Toluene	U	0.50	"							U
trans-1,2-Dichloroethene	U	0.50	"							U
trans-1,3-Dichloropropene	U	0.50	"							U
Trichloroethene (Trichloroethylene)	U	0.50	"							U
Trichlorofluoromethane (Freon 11)	U	0.50	"							U
Vinyl chloride	U	0.50	"							U
Tentatively Identified Compounds	U	10	"							U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
LCS (1905122-BS1)				Prepared & Analyzed: 05/28/19						
EPA 8260C										
(m- and/or p-)Xylene	38.170		ug/L	40.000		95.4	91.3-117			
1,1,1,2-Tetrachloroethane	17.440		"	20.000		87.2	76.5-128			
1,1,1-Trichloroethane	18.450		"	20.000		92.2	79.3-126			
1,1,2,2-Tetrachloroethane	16.900		"	20.000		84.5	80.2-118			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	18.470		"	20.000		92.4	80-124			
1,1,2-Trichloroethane	17.790		"	20.000		89.0	87.1-111			
1,1-Dichloroethane	18.810		"	20.000		94.0	87.8-113			
1,1-Dichloroethene (1,1-Dichloroethylene)	18.610		"	20.000		93.0	85.4-116			
1,1-Dichloropropene	19.650		"	20.000		98.2	89.4-115			
1,2,3-Trichlorobenzene	17.520		"	20.000		87.6	85-117			
1,2,3-Trichloropropane	16.940		"	20.000		84.7	83.4-114			
1,2,4-Trichlorobenzene	17.100		"	20.000		85.5	83.9-117			
1,2,4-Trimethylbenzene	18.610		"	20.000		93.0	86.5-121			
1,2-Dibromo-3-Chloropropane (DBCP)	33.660		"	40.000		84.2	72.3-136			
1,2-Dibromoethane (EDB)	18.420		"	20.000		92.1	87.3-115			
1,2-Dichlorobenzene	17.270		"	20.000		86.4	86.4-111			
1,2-Dichloroethane	18.340		"	20.000		91.7	83.9-122			
1,2-Dichloropropane	18.680		"	20.000		93.4	88-113			
1,3,5-Trimethylbenzene	18.630		"	20.000		93.2	86.8-119			
1,3-Dichlorobenzene	17.250		"	20.000		86.2	86.4-112			QL-1
1,3-Dichloropropane	18.040		"	20.000		90.2	87.4-113			
1,4-Dichlorobenzene	16.990		"	20.000		85.0	86.5-110			QL-1
2,2-Dichloropropane	18.750		"	20.000		93.8	53.4-154			
Acetone	36.380		"	40.000		91.0	49.7-153			
Benzene	18.790		"	20.000		94.0	89.6-113			
Bromobenzene	17.190		"	20.000		86.0	84.6-112			
Bromochloromethane	18.830		"	20.000		94.2	83.6-117			
Bromodichloromethane	18.050		"	20.000		90.2	80-125			
Bromoform	34.340		"	40.000		85.8	63.1-142			
Bromomethane	8.7400		"	20.000		43.7	49.9-140			QC-1, QL-1
Carbon disulfide	18.910		"	20.000		94.6	81.7-114			
Carbon Tetrachloride	18.760		"	20.000		93.8	68.8-140			
Chlorobenzene	17.390		"	20.000		87.0	88.4-109			QL-1
Chloroethane	18.910		"	20.000		94.6	76.7-118			
Chloroform	18.280		"	20.000		91.4	87.9-115			
Chloromethane	16.660		"	20.000		83.3	68.9-118			
cis-1,2-Dichloroethene	18.740		"	20.000		93.7	87.6-115			
cis-1,3-Dichloropropene	18.410		"	20.000		92.0	81-121			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
LCS (1905122-BS1)				Prepared & Analyzed: 05/28/19						
Cyclohexane	19.470		ug/L	20.000		97.4	83.5-122			
Dibromochloromethane	18.050		"	20.000		90.2	71.7-133			
Dibromomethane	18.080		"	20.000		90.4	87.3-117			
Dichlorodifluoromethane (Freon 12)	16.950		"	20.000		84.8	63.5-132			
Ethyl Benzene	18.130		"	20.000		90.6	90-114			
Hexachlorobutadiene	17.850		"	20.000		89.2	80.2-116			
Isopropylbenzene	18.460		"	20.000		92.3	84.5-120			
Methyl Acetate	38.190		"	40.000		95.5	75.8-121			
Methyl Butyl Ketone	37.260		"	40.000		93.2	69.9-136			
Methyl Ethyl Ketone	37.460		"	40.000		93.6	68.1-135			
Methyl Isobutyl Ketone	37.730		"	40.000		94.3	77-127			
Methyl T-Butyl Ether (MTBE)	18.890		"	20.000		94.4	80.1-123			
Methylcyclohexane	19.240		"	20.000		96.2	82.6-124			
Methylene Chloride	18.220		"	20.000		91.1	81.2-118			
n-Butylbenzene	18.690		"	20.000		93.4	85.7-121			
n-Propylbenzene	18.300		"	20.000		91.5	87-117			
o-Chlorotoluene	17.670		"	20.000		88.4	85.8-114			
o-Xylene	18.940		"	20.000		94.7	88.9-116			
p-Chlorotoluene	17.760		"	20.000		88.8	86.5-114			
p-Isopropyltoluene	19.110		"	20.000		95.6	86.3-123			
sec-Butylbenzene	18.950		"	20.000		94.8	86.2-120			
Styrene	19.260		"	20.000		96.3	89.9-119			
tert-Butylbenzene	18.550		"	20.000		92.8	85.2-119			
Tetrachloroethene (Tetrachloroethylene)	18.620		"	20.000		93.1	85.1-113			
Toluene	18.080		"	20.000		90.4	87.7-111			
trans-1,2-Dichloroethene	18.710		"	20.000		93.6	86.6-114			
trans-1,3-Dichloropropene	18.380		"	20.000		91.9	77.4-127			
Trichloroethene (Trichloroethylene)	18.560		"	20.000		92.8	87.8-114			
Trichlorofluoromethane (Freon 11)	18.270		"	20.000		91.4	78-129			
Vinyl chloride	17.990		"	20.000		90.0	78.8-115			

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
LCS Dup (1905122-BSD1)				Prepared & Analyzed: 05/28/19						
EPA 8260C										
(m- and/or p-)Xylene	40.260		ug/L	40.000		101	91.3-117	5.33	10	
1,1,1,2-Tetrachloroethane	18.840		"	20.000		94.2	76.5-128	7.72	10	
1,1,1-Trichloroethane	19.580		"	20.000		97.9	79.3-126	5.94	10	
1,1,2,2-Tetrachloroethane	17.980		"	20.000		89.9	80.2-118	6.19	16	
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	19.550		"	20.000		97.8	80-124	5.68	10	
1,1,2-Trichloroethane	18.670		"	20.000		93.4	87.1-111	4.83	11	
1,1-Dichloroethane	19.730		"	20.000		98.6	87.8-113	4.77	10	
1,1-Dichloroethene (1,1-Dichloroethylene)	19.500		"	20.000		97.5	85.4-116	4.67	11	
1,1-Dichloropropene	20.870		"	20.000		104	89.4-115	6.02	10	
1,2,3-Trichlorobenzene	18.570		"	20.000		92.8	85-117	5.82	12	
1,2,3-Trichloropropane	18.760		"	20.000		93.8	83.4-114	10.2	20	
1,2,4-Trichlorobenzene	18.160		"	20.000		90.8	83.9-117	6.01	13	
1,2,4-Trimethylbenzene	19.550		"	20.000		97.8	86.5-121	4.93	11	
1,2-Dibromo-3-Chloropropane (DBCP)	37.200		"	40.000		93.0	72.3-136	9.99	26	
1,2-Dibromoethane (EDB)	19.710		"	20.000		98.6	87.3-115	6.77	12	
1,2-Dichlorobenzene	17.960		"	20.000		89.8	86.4-111	3.92	10	
1,2-Dichloroethane	19.600		"	20.000		98.0	83.9-122	6.64	10	
1,2-Dichloropropane	19.810		"	20.000		99.0	88-113	5.87	10	
1,3,5-Trimethylbenzene	19.810		"	20.000		99.0	86.8-119	6.14	10	
1,3-Dichlorobenzene	18.010		"	20.000		90.0	86.4-112	4.31	10	
1,3-Dichloropropane	18.880		"	20.000		94.4	87.4-113	4.55	10	
1,4-Dichlorobenzene	17.950		"	20.000		89.8	86.5-110	5.50	11	
2,2-Dichloropropane	19.970		"	20.000		99.8	53.4-154	6.30	10	
Acetone	40.760		"	40.000		102	49.7-153	11.4	65	
Benzene	19.830		"	20.000		99.2	89.6-113	5.39	10	
Bromobenzene	18.150		"	20.000		90.8	84.6-112	5.43	10	
Bromochloromethane	20.330		"	20.000		102	83.6-117	7.66	10	
Bromodichloromethane	19.450		"	20.000		97.2	80-125	7.47	10	
Bromoform	36.060		"	40.000		90.2	63.1-142	4.89	16	
Bromomethane	10.720		"	20.000		53.6	49.9-140	20.3	20	QC-1, QL-1, QL-3
Carbon disulfide	20.020		"	20.000		100	81.7-114	5.70	10	
Carbon Tetrachloride	19.720		"	20.000		98.6	68.8-140	4.99	10	
Chlorobenzene	18.410		"	20.000		92.0	88.4-109	5.70	10	
Chloroethane	19.790		"	20.000		99.0	76.7-118	4.55	12	
Chloroform	19.270		"	20.000		96.4	87.9-115	5.27	10	
Chloromethane	17.480		"	20.000		87.4	68.9-118	4.80	12	
cis-1,2-Dichloroethene	20.090		"	20.000		100	87.6-115	6.95	10	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
LCS Dup (1905122-BSD1)				Prepared & Analyzed: 05/28/19						
cis-1,3-Dichloropropene	19.570		ug/L	20.000		97.8	81-121	6.11	10	
Cyclohexane	20.760		"	20.000		104	83.5-122	6.41	10	
Dibromochloromethane	18.830		"	20.000		94.2	71.7-133	4.23	12	
Dibromomethane	19.090		"	20.000		95.4	87.3-117	5.43	10	
Dichlorodifluoromethane (Freon 12)	17.900		"	20.000		89.5	63.5-132	5.45	13	
Ethyl Benzene	19.240		"	20.000		96.2	90-114	5.94	10	
Hexachlorobutadiene	19.110		"	20.000		95.6	80.2-116	6.82	13	
Isopropylbenzene	19.710		"	20.000		98.6	84.5-120	6.55	10	
Methyl Acetate	41.860		"	40.000		105	75.8-121	9.17	22	
Methyl Butyl Ketone	40.890		"	40.000		102	69.9-136	9.29	38	
Methyl Ethyl Ketone	42.280		"	40.000		106	68.1-135	12.1	49	
Methyl Isobutyl Ketone	41.610		"	40.000		104	77-127	9.78	22	
Methyl T-Butyl Ether (MTBE)	20.330		"	20.000		102	80.1-123	7.34	10	
Methylcyclohexane	20.370		"	20.000		102	82.6-124	5.71	10	
Methylene Chloride	19.260		"	20.000		96.3	81.2-118	5.55	10	
n-Butylbenzene	19.850		"	20.000		99.2	85.7-121	6.02	10	
n-Propylbenzene	19.340		"	20.000		96.7	87-117	5.53	10	
o-Chlorotoluene	18.690		"	20.000		93.4	85.8-114	5.61	10	
o-Xylene	20.020		"	20.000		100	88.9-116	5.54	10	
p-Chlorotoluene	18.670		"	20.000		93.4	86.5-114	5.00	10	
p-Isopropyltoluene	20.200		"	20.000		101	86.3-123	5.55	10	
sec-Butylbenzene	20.100		"	20.000		100	86.2-120	5.89	10	
Styrene	19.940		"	20.000		99.7	89.9-119	3.47	10	
tert-Butylbenzene	19.650		"	20.000		98.2	85.2-119	5.76	10	
Tetrachloroethene (Tetrachloroethylene)	19.530		"	20.000		97.6	85.1-113	4.77	10	
Toluene	19.140		"	20.000		95.7	87.7-111	5.70	10	
trans-1,2-Dichloroethene	20.130		"	20.000		101	86.6-114	7.31	10	
trans-1,3-Dichloropropene	19.480		"	20.000		97.4	77.4-127	5.81	10	
Trichloroethene (Trichloroethylene)	19.790		"	20.000		99.0	87.8-114	6.41	10	
Trichlorofluoromethane (Freon 11)	19.120		"	20.000		95.6	78-129	4.55	10	
Vinyl chloride	18.820		"	20.000		94.1	78.8-115	4.51	10	

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
Duplicate (1905122-DUP1)		**Source: E192104-14**		Prepared & Analyzed: 05/28/19						
EPA 8260C										
(m- and/or p-)Xylene	U	1.0	ug/L		U				20	U
1,1,1,2-Tetrachloroethane	U	0.50	"		U				20	U
1,1,1-Trichloroethane	U	0.50	"		U				20	U
1,1,2,2-Tetrachloroethane	U	0.50	"		U				20	U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	0.50	"		U				20	U
1,1,2-Trichloroethane	U	0.50	"		U				20	U
1,1-Dichloroethane	U	0.50	"		U				20	U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	0.50	"		U				20	U
1,1-Dichloropropene	U	0.50	"		U				20	U
1,2,3-Trichlorobenzene	U	0.50	"		U				20	U
1,2,3-Trichloropropane	U	0.50	"		U				20	U
1,2,4-Trichlorobenzene	U	0.50	"		U				20	U
1,2,4-Trimethylbenzene	U	0.50	"		U				20	U
1,2-Dibromo-3-Chloropropane (DBCP)	U	1.0	"		U				20	U
1,2-Dibromoethane (EDB)	U	0.50	"		U				20	U
1,2-Dichlorobenzene	U	0.50	"		U				20	U
1,2-Dichloroethane	U	0.50	"		U				20	U
1,2-Dichloropropane	U	0.50	"		U				20	U
1,3,5-Trimethylbenzene	U	0.50	"		U				20	U
1,3-Dichlorobenzene	U	0.50	"		U				20	J, QL-1, U
1,3-Dichloropropane	U	0.50	"		U				20	U
1,4-Dichlorobenzene	U	0.50	"		U				20	J, QL-1, U
2,2-Dichloropropane	U	0.50	"		U				20	U
Acetone	U	4.0	"		U				20	U
Benzene	U	0.50	"		U				20	U
Bromobenzene	U	0.50	"		U				20	U
Bromochloromethane	U	0.50	"		U				20	U
Bromodichloromethane	U	0.50	"		U				20	U
Bromoform	U	1.0	"		U				20	U
Bromomethane	U	2.0	"		U				20	QL-3, J, QC-1, QL-1, U
Carbon disulfide	U	2.0	"		U				20	U
Carbon Tetrachloride	U	0.50	"		U				20	U
Chlorobenzene	U	0.50	"		U				20	J, QL-1, U
Chloroethane	U	2.0	"		U				20	U
Chloroform	U	0.50	"		U				20	U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
Duplicate (1905122-DUP1)		**Source: E192104-14**		Prepared & Analyzed: 05/28/19						
Chloromethane	U	0.50	ug/L		U				20	U
cis-1,2-Dichloroethene	U	0.50	"		U				20	U
cis-1,3-Dichloropropene	U	0.50	"		U				20	U
Cyclohexane	U	0.50	"		U				20	U
Dibromochloromethane	U	0.50	"		U				20	U
Dibromomethane	U	0.50	"		U				20	U
Dichlorodifluoromethane (Freon 12)	U	0.50	"		U				20	U
Ethyl Benzene	U	0.50	"		U				20	U
Hexachlorobutadiene	U	0.50	"		U				20	U
Isopropylbenzene	U	0.50	"		U				20	U
Methyl Acetate	U	1.0	"		U				20	U
Methyl Butyl Ketone	U	1.0	"		U				20	U
Methyl Ethyl Ketone	U	4.0	"		U				20	U
Methyl Isobutyl Ketone	U	1.0	"		U				20	U
Methyl T-Butyl Ether (MTBE)	U	0.50	"		U				20	U
Methylcyclohexane	U	0.50	"		U				20	U
Methylene Chloride	U	0.50	"		U				20	U
n-Butylbenzene	U	0.50	"		U				20	U
n-Propylbenzene	U	0.50	"		U				20	U
o-Chlorotoluene	U	0.50	"		U				20	U
o-Xylene	U	0.50	"		U				20	U
p-Chlorotoluene	U	0.50	"		U				20	U
p-Isopropyltoluene	U	0.50	"		U				20	U
sec-Butylbenzene	U	0.50	"		U				20	U
Styrene	U	0.50	"		U				20	U
tert-Butylbenzene	U	0.50	"		U				20	U
Tetrachloroethene (Tetrachloroethylene)	U	0.50	"		U				20	U
Toluene	U	0.50	"		U				20	U
trans-1,2-Dichloroethene	U	0.50	"		U				20	U
trans-1,3-Dichloropropene	U	0.50	"		U				20	U
Trichloroethene (Trichloroethylene)	U	0.50	"		U				20	U
Trichlorofluoromethane (Freon 11)	U	0.50	"		U				20	U
Vinyl chloride	U	0.50	"		U				20	U
Tentatively Identified Compounds	U	10	"		U				200	U

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
MRL Verification (1905122-PS1)				Prepared & Analyzed: 05/28/19						
EPA 8260C										
(m- and/or p-)Xylene	0.88000		ug/L	1.0000		88.0	71.3-137			MRL-2
1,1,1,2-Tetrachloroethane	0.49000		"	0.50000		98.0	56.5-148			MRL-2
1,1,1-Trichloroethane	0.54000		"	0.50000		108	59.3-146			MRL-2
1,1,2,2-Tetrachloroethane	0.45000		"	0.50000		90.0	60.2-138			MRL-2
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.55000		"	0.50000		110	60-144			MRL-2
1,1,2-Trichloroethane	0.49000		"	0.50000		98.0	67.1-131			MRL-2
1,1-Dichloroethane	0.50000		"	0.50000		100	67.8-133			MRL-2
1,1-Dichloroethene (1,1-Dichloroethylene)	0.50000		"	0.50000		100	65.4-136			MRL-2
1,1-Dichloropropene	0.47000		"	0.50000		94.0	69.4-135			MRL-2
1,2,3-Trichlorobenzene	0.38000		"	0.50000		76.0	65-137			MRL-2
1,2,3-Trichloropropane	0.45000		"	0.50000		90.0	63.4-134			MRL-2
1,2,4-Trichlorobenzene	0.39000		"	0.50000		78.0	63.9-137			MRL-2
1,2,4-Trimethylbenzene	0.36000		"	0.50000		72.0	66.5-141			MRL-2
1,2-Dibromo-3-Chloropropane (DBCP)	0.78000		"	1.0000		78.0	52.3-156			MRL-2
1,2-Dibromoethane (EDB)	0.44000		"	0.50000		88.0	67.3-135			MRL-2
1,2-Dichlorobenzene	0.47000		"	0.50000		94.0	66.4-131			MRL-2
1,2-Dichloroethane	0.56000		"	0.50000		112	63.9-142			MRL-2
1,2-Dichloropropane	0.51000		"	0.50000		102	68-133			MRL-2
1,3,5-Trimethylbenzene	0.39000		"	0.50000		78.0	66.8-139			MRL-2
1,3-Dichlorobenzene	0.49000		"	0.50000		98.0	66.4-132			MRL-2
1,3-Dichloropropane	0.51000		"	0.50000		102	67.4-133			MRL-2
1,4-Dichlorobenzene	0.52000		"	0.50000		104	66.5-130			MRL-2
2,2-Dichloropropane	0.51000		"	0.50000		102	33.4-174			MRL-2
Acetone	1.5000		"	1.0000		150	29.7-173			
Benzene	0.53000		"	0.50000		106	69.6-133			MRL-2
Bromobenzene	0.44000		"	0.50000		88.0	64.6-132			MRL-2
Bromochloromethane	0.46000		"	0.50000		92.0	63.6-137			MRL-2
Bromodichloromethane	0.51000		"	0.50000		102	60-145			MRL-2
Bromoform	0.87000		"	1.0000		87.0	43.1-162			MRL-2
Bromomethane	0.19000		"	0.50000		38.0	29.9-160			QC-1
Carbon disulfide	0.61000		"	0.50000		122	61.7-134			
Carbon Tetrachloride	0.52000		"	0.50000		104	48.8-160			MRL-2
Chlorobenzene	0.50000		"	0.50000		100	68.4-129			MRL-2
Chloroethane	0.54000		"	0.50000		108	56.7-138			
Chloroform	0.53000		"	0.50000		106	67.9-135			MRL-2
Chloromethane	0.51000		"	0.50000		102	48.9-138			MRL-2
cis-1,2-Dichloroethene	0.52000		"	0.50000		104	67.6-135			MRL-2
cis-1,3-Dichloropropene	0.46000		"	0.50000		92.0	61-141			MRL-2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905122 - V 5030B VOA Wtr Prep										
MRL Verification (1905122-PS1)				Prepared & Analyzed: 05/28/19						
Cyclohexane	0.46000		ug/L	0.50000		92.0	63.5-142			MRL-2
Dibromochloromethane	0.40000		"	0.50000		80.0	51.7-153			MRL-2
Dibromomethane	0.52000		"	0.50000		104	67.3-137			MRL-2
Dichlorodifluoromethane (Freon 12)	0.50000		"	0.50000		100	43.5-152			MRL-2
Ethyl Benzene	0.47000		"	0.50000		94.0	70-134			MRL-2
Hexachlorobutadiene	0.47000		"	0.50000		94.0	60.2-136			MRL-2
Isopropylbenzene	0.40000		"	0.50000		80.0	64.5-140			MRL-2
Methyl Acetate	0.94000		"	1.0000		94.0	55.8-141			MRL-2
Methyl Butyl Ketone	0.72000		"	1.0000		72.0	49.9-156			MRL-2
Methyl Ethyl Ketone	0.81000		"	1.0000		81.0	48.1-155			
Methyl Isobutyl Ketone	0.79000		"	1.0000		79.0	57-147			MRL-2
Methyl T-Butyl Ether (MTBE)	0.46000		"	0.50000		92.0	60.1-143			MRL-2
Methylcyclohexane	0.44000		"	0.50000		88.0	62.6-144			MRL-2
Methylene Chloride	0.51000		"	0.50000		102	61.2-138			MRL-2
n-Butylbenzene	0.39000		"	0.50000		78.0	65.7-141			MRL-2
n-Propylbenzene	0.41000		"	0.50000		82.0	67-137			MRL-2
o-Chlorotoluene	0.45000		"	0.50000		90.0	65.8-134			MRL-2
o-Xylene	0.47000		"	0.50000		94.0	68.9-136			MRL-2
p-Chlorotoluene	0.45000		"	0.50000		90.0	66.5-134			MRL-2
p-Isopropyltoluene	0.34000		"	0.50000		68.0	66.3-143			MRL-2
sec-Butylbenzene	0.39000		"	0.50000		78.0	66.2-140			MRL-2
Styrene	0.38000		"	0.50000		76.0	69.9-139			MRL-2
tert-Butylbenzene	0.42000		"	0.50000		84.0	65.2-139			MRL-2
Tetrachloroethene (Tetrachloroethylene)	0.46000		"	0.50000		92.0	65.1-133			MRL-2
Toluene	0.51000		"	0.50000		102	67.7-131			MRL-2
trans-1,2-Dichloroethene	0.54000		"	0.50000		108	66.6-134			MRL-2
trans-1,3-Dichloropropene	0.42000		"	0.50000		84.0	57.4-147			MRL-2
Trichloroethene (Trichloroethylene)	0.52000		"	0.50000		104	67.8-134			MRL-2
Trichlorofluoromethane (Freon 11)	0.49000		"	0.50000		98.0	58-149			MRL-2
Vinyl chloride	0.48000		"	0.50000		96.0	58.8-135			MRL-2

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
QC-1	Analyte concentration low in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
QL-3	Laboratory Control Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits.
QR-2	MRL verification recovery greater than upper control limits.

Appendix C – SVOC Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

June 20, 2019

4LSASD-LSB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jason Collum
OCS Analyst

THRU: Jeffrey Hendel, Chief
LSB Organic Chemistry Section

TO: Nathan Barlet

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
Semivolatile organic compounds	EPA 8270D (Water)	ISO

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-CEC-0520	E192104-05	Surface Water	5/20/19 12:30	5/22/19 13:08
P2-CHR-0520	E192104-06	Surface Water	5/21/19 09:30	5/22/19 13:08
P2-CRI-0520	E192104-07	Surface Water	5/20/19 12:00	5/22/19 13:08
P2-CRI-Dup-0520	E192104-08	Surface Water	5/20/19 12:15	5/22/19 13:08
P2-KNC-0520	E192104-11	Surface Water	5/20/19 15:45	5/22/19 13:08
P2-LIR-0520	E192104-12	Surface Water	5/21/19 13:45	5/22/19 13:08
P2-MHC-0520	E192104-13	Surface Water	5/20/19 14:40	5/22/19 13:08
P2-MUC-0520	E192104-14	Surface Water	5/20/19 16:15	5/22/19 13:08
P2-SPC-0520	E192104-15	Surface Water	5/21/19 11:20	5/22/19 13:08
P2-UNT3-0520	E192104-16	Surface Water	5/20/19 18:15	5/22/19 13:08
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 13:10	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
87-86-5	Pentachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:10	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:10	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
123-91-1	1,4-Dioxane	1.2	J, Q-2	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 13:41	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05

Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
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78-59-1	Isophorone	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
87-86-5	Pentachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 13:41	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 13:41	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06
Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 14:12	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 14:12	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 14:12	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 14:12	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
92-52-4	1,1-Biphenyl	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
123-91-1	1,4-Dioxane	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
90-12-0	1-Methylnaphthalene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
120-83-2	2,4-Dichlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
105-67-9	2,4-Dimethylphenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
51-28-5	2,4-Dinitrophenol	21	U	ug/L	21	5/23/19 8:36	6/05/19 14:43	EPA 8270D
121-14-2	2,4-Dinitrotoluene	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
606-20-2	2,6-Dinitrotoluene	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
91-58-7	2-Chloronaphthalene	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
95-57-8	2-Chlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
91-57-6	2-Methylnaphthalene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
95-48-7	2-Methylphenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
88-74-4	2-Nitroaniline	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
88-75-5	2-Nitrophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
99-09-2	3-Nitroaniline	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
106-47-8	4-Chloroaniline	11	U, J, QC-1	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
100-01-6	4-Nitroaniline	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
100-02-7	4-Nitrophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
83-32-9	Acenaphthene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
98-86-2	Acetophenone	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
120-12-7	Anthracene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
1912-24-9	Atrazine	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
100-52-7	Benzaldehyde	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
56-55-3	Benzo(a)anthracene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
50-32-8	Benzo(a)pyrene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
85-68-7	Benzyl butyl phthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
105-60-2	Caprolactam	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
86-74-8	Carbazole	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
218-01-9	Chrysene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
132-64-9	Dibenzofuran	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
84-66-2	Diethyl phthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
131-11-3	Dimethyl phthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
84-74-2	Di-n-butylphthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
117-84-0	Di-n-octylphthalate	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
206-44-0	Fluoranthene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
86-73-7	Fluorene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
67-72-1	Hexachloroethane	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
78-59-1	Isophorone	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
91-20-3	Naphthalene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
98-95-3	Nitrobenzene	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
87-86-5	Pentachlorophenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
85-01-8	Phenanthrene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
108-95-2	Phenol	11	U	ug/L	11	5/23/19 8:36	6/05/19 14:43	EPA 8270D
129-00-0	Pyrene	2.1	U	ug/L	2.1	5/23/19 8:36	6/05/19 14:43	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 14:43	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 15:14	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 15:14	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:14	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:14	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 15:46	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11

Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11

Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
87-86-5	Pentachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 15:46	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 15:46	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 16:17	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12

Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 16:17	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:17	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:17	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	14		ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 16:48	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13

Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
87-86-5	Pentachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 16:48	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 17:19	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
87-86-5	Pentachlorophenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:19	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 17:50	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/23/19 8:36	6/05/19 17:50	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 17:50	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/23/19 8:36	6/05/19 18:21	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/23/19 8:36	6/05/19 18:21	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/23/19 8:36	6/05/19 18:21	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/23/19 8:36	6/05/19 18:21	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06
Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 14:13	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U, J, QC-1	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 14:13	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:13	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:13	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 14:44	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
87-86-5	Pentachlorophenol	10	U, J, QC-1	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 14:44	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 14:44	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
120-83-2	2,4-Dichlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
105-67-9	2,4-Dimethylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 15:15	EPA 8270D
121-14-2	2,4-Dinitrotoluene	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
606-20-2	2,6-Dinitrotoluene	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
91-58-7	2-Chloronaphthalene	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
95-57-8	2-Chlorophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
95-48-7	2-Methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
88-74-4	2-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
88-75-5	2-Nitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
99-09-2	3-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
106-47-8	4-Chloroaniline	10	U, J, QC-1	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
100-01-6	4-Nitroaniline	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
100-02-7	4-Nitrophenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
98-86-2	Acetophenone	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
1912-24-9	Atrazine	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
100-52-7	Benzaldehyde	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
85-68-7	Benzyl butyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
105-60-2	Caprolactam	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
84-66-2	Diethyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
131-11-3	Dimethyl phthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
84-74-2	Di-n-butylphthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
117-84-0	Di-n-octylphthalate	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
67-72-1	Hexachloroethane	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
78-59-1	Isophorone	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
98-95-3	Nitrobenzene	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
87-86-5	Pentachlorophenol	10	U, J, QC-1	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
108-95-2	Phenol	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:15	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:15	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 15:46	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D

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Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16

Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 15:46	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 15:46	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 15:46	EPA 8270D

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Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 16:17	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D

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980 College Station Road, Athens, Georgia 30605-2700
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Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 16:17	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:17	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 16:17	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 16:48	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
91-58-7	2-Chloronaphthalene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
95-57-8	2-Chlorophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
95-48-7	2-Methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
88-74-4	2-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
88-75-5	2-Nitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
99-09-2	3-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
106-47-8	4-Chloroaniline	9.8	U, J, QC-1	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
100-01-6	4-Nitroaniline	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
100-02-7	4-Nitrophenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
98-86-2	Acetophenone	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
1912-24-9	Atrazine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
100-52-7	Benzaldehyde	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
105-60-2	Caprolactam	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
84-66-2	Diethyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
131-11-3	Dimethyl phthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
84-74-2	Di-n-butylphthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
117-84-0	Di-n-octylphthalate	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
67-72-1	Hexachloroethane	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
78-59-1	Isophorone	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
98-95-3	Nitrobenzene	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
87-86-5	Pentachlorophenol	9.8	U, J, QC-1	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
108-95-2	Phenol	9.8	U	ug/L	9.8	5/28/19 8:48	6/06/19 16:48	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 16:48	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 16:48	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 17:19	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
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Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26

Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26

Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:19	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:19	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 17:19	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 17:50	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 17:50	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 17:50	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 17:50	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02
Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
92-52-4	1,1-Biphenyl	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
123-91-1	1,4-Dioxane	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
90-12-0	1-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
120-83-2	2,4-Dichlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
105-67-9	2,4-Dimethylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
51-28-5	2,4-Dinitrophenol	20	U	ug/L	20	5/28/19 8:48	6/06/19 18:21	EPA 8270D
121-14-2	2,4-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
606-20-2	2,6-Dinitrotoluene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
91-58-7	2-Chloronaphthalene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
95-57-8	2-Chlorophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
91-57-6	2-Methylnaphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
95-48-7	2-Methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
88-74-4	2-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
88-75-5	2-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
99-09-2	3-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
106-47-8	4-Chloroaniline	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
100-01-6	4-Nitroaniline	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
100-02-7	4-Nitrophenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
83-32-9	Acenaphthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
98-86-2	Acetophenone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
120-12-7	Anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
1912-24-9	Atrazine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
100-52-7	Benzaldehyde	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
56-55-3	Benzo(a)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
50-32-8	Benzo(a)pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
205-99-2	Benzo(b)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
207-08-9	Benzo(k)fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
85-68-7	Benzyl butyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
108-60-1	Bis(2-chloro-1-methylethyl) ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
105-60-2	Caprolactam	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
86-74-8	Carbazole	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
218-01-9	Chrysene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
132-64-9	Dibenzofuran	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
84-66-2	Diethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
131-11-3	Dimethyl phthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
84-74-2	Di-n-butylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
117-84-0	Di-n-octylphthalate	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
206-44-0	Fluoranthene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
86-73-7	Fluorene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
67-72-1	Hexachloroethane	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
193-39-5	Indeno (1,2,3-cd) pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
78-59-1	Isophorone	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
91-20-3	Naphthalene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
98-95-3	Nitrobenzene	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
87-86-5	Pentachlorophenol	9.9	U, J, QC-1	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
85-01-8	Phenanthrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
108-95-2	Phenol	9.9	U	ug/L	9.9	5/28/19 8:48	6/06/19 18:21	EPA 8270D
129-00-0	Pyrene	2.0	U	ug/L	2.0	5/28/19 8:48	6/06/19 18:21	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/L	10	5/28/19 8:48	6/06/19 18:21	EPA 8270D

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Blank (1905109-BLK1)				Prepared: 05/23/19 Analyzed: 06/05/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	U	10	ug/L							U
1,1-Biphenyl	U	2.0	"							U
1,4-Dioxane	U	2.0	"							U
1-Methylnaphthalene	U	2.0	"							U
2,3,4,6-Tetrachlorophenol	U	10	"							U
2,4,5-Trichlorophenol	U	10	"							U
2,4,6-Trichlorophenol	U	10	"							U
2,4-Dichlorophenol	U	10	"							U
2,4-Dimethylphenol	U	10	"							U
2,4-Dinitrophenol	U	20	"							U
2,4-Dinitrotoluene	U	10	"							U
2,6-Dinitrotoluene	U	10	"							U
2-Chloronaphthalene	U	10	"							U
2-Chlorophenol	U	10	"							U
2-Methyl-4,6-dinitrophenol	U	10	"							U
2-Methylnaphthalene	U	2.0	"							U
2-Methylphenol	U	10	"							U
2-Nitroaniline	U	10	"							U
2-Nitrophenol	U	10	"							U
3,3'-Dichlorobenzidine	U	10	"							U
3-Nitroaniline	U	10	"							U
4-Bromophenyl phenyl ether	U	10	"							U
4-Chloro-3-methylphenol	U	10	"							U
4-Chloroaniline	U	10	"							QC-1, U
4-Chlorophenyl phenyl ether	U	10	"							U
4-Nitroaniline	U	10	"							U
4-Nitrophenol	U	10	"							U
Acenaphthene	U	2.0	"							U
Acenaphthylene	U	2.0	"							U
Acetophenone	U	10	"							U
Anthracene	U	2.0	"							U
Atrazine	U	10	"							U
Benzaldehyde	U	10	"							U
Benzo(a)anthracene	U	2.0	"							U
Benzo(a)pyrene	U	2.0	"							U
Benzo(b)fluoranthene	U	2.0	"							U
Benzo(g,h,i)perylene	U	2.0	"							U
Benzo(k)fluoranthene	U	2.0	"							U
Benzyl butyl phthalate	U	10	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Blank (1905109-BLK1)				Prepared: 05/23/19 Analyzed: 06/05/19						
Bis(2-chloro-1-methylethyl) ether	U	10	ug/L							U
Bis(2-chloroethoxy)methane	U	10	"							U
bis(2-Chloroethyl) Ether	U	10	"							U
Bis(2-ethylhexyl) phthalate	U	10	"							U
Caprolactam	U	10	"							U
Carbazole	U	2.0	"							U
Chrysene	U	2.0	"							U
Dibenz(a,h)anthracene	U	2.0	"							U
Dibenzofuran	U	2.0	"							U
Diethyl phthalate	U	10	"							U
Dimethyl phthalate	U	10	"							U
Di-n-butylphthalate	U	10	"							U
Di-n-octylphthalate	U	10	"							U
Fluoranthene	U	2.0	"							U
Fluorene	U	2.0	"							U
Hexachlorobenzene (HCB)	U	10	"							U
Hexachlorocyclopentadiene (HCCP)	U	10	"							U
Hexachloroethane	U	10	"							U
Indeno (1,2,3-cd) pyrene	U	2.0	"							U
Isophorone	U	10	"							U
Naphthalene	U	2.0	"							U
Nitrobenzene	U	10	"							U
n-Nitroso di-n-Propylamine	U	10	"							U
n-Nitrosodiphenylamine/Diphenylamine	U	10	"							U
Pentachlorophenol	U	10	"							U
Phenanthrene	U	2.0	"							U
Phenol	U	10	"							U
Pyrene	U	2.0	"							U
Tentatively Identified Compounds	U	10	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
LCS (1905109-BS1)				Prepared: 05/23/19 Analyzed: 06/05/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	57.736	10	ug/L	60.000		96.2	50-102			
1,1-Biphenyl	49.124	2.0	"	60.000		81.9	58-103			
1,4-Dioxane	44.677	2.0	"	60.000		74.5	33-97			
1-Methylnaphthalene	52.801	2.0	"	60.000		88.0	44-114			
2,3,4,6-Tetrachlorophenol	50.327	10	"	60.000		83.9	69-121			
2,4,5-Trichlorophenol	60.471	10	"	60.000		101	72-109			
2,4,6-Trichlorophenol	57.512	10	"	60.000		95.9	68-106			
2,4-Dichlorophenol	63.249	10	"	60.000		105	59-107			
2,4-Dimethylphenol	53.120	10	"	60.000		88.5	46-96			
2,4-Dinitrophenol	124.57	20	"	120.00		104	73-120			
2,4-Dinitrotoluene	55.403	10	"	60.000		92.3	79-106			
2,6-Dinitrotoluene	57.799	10	"	60.000		96.3	74-105			
2-Chloronaphthalene	53.276	10	"	60.000		88.8	60-102			
2-Chlorophenol	56.745	10	"	60.000		94.6	48-103			
2-Methyl-4,6-dinitrophenol	68.068	10	"	60.000		113	70-113			
2-Methylnaphthalene	48.835	2.0	"	60.000		81.4	55-100			
2-Methylphenol	56.239	10	"	60.000		93.7	49-101			
2-Nitroaniline	52.203	10	"	60.000		87.0	70-112			
2-Nitrophenol	60.576	10	"	60.000		101	56-105			
3,3'-Dichlorobenzidine	40.259	10	"	60.000		67.1	20-99			
3-Nitroaniline	51.923	10	"	60.000		86.5	62-105			
4-Bromophenyl phenyl ether	54.526	10	"	60.000		90.9	61-117			
4-Chloro-3-methylphenol	62.145	10	"	60.000		104	66-106			
4-Chloroaniline	39.682	10	"	60.000		66.1	12-98			QC-1
4-Chlorophenyl phenyl ether	54.432	10	"	60.000		90.7	63-115			
4-Nitroaniline	50.030	10	"	60.000		83.4	52-125			
4-Nitrophenol	55.501	10	"	60.000		92.5	62-110			
Acenaphthene	52.129	2.0	"	60.000		86.9	62-101			
Acenaphthylene	50.307	2.0	"	60.000		83.8	64-105			
Acetophenone	53.344	10	"	60.000		88.9	53-105			
Anthracene	51.293	2.0	"	60.000		85.5	62-112			
Atrazine	53.642	10	"	60.000		89.4	47-128			
Benzaldehyde	61.454	10	"	60.000		102	10-125			
Benzo(a)anthracene	50.149	2.0	"	60.000		83.6	64-113			
Benzo(a)pyrene	51.647	2.0	"	60.000		86.1	59-128			
Benzo(b)fluoranthene	50.571	2.0	"	60.000		84.3	59-128			
Benzo(g,h,i)perylene	40.729	2.0	"	60.000		67.9	45-123			
Benzo(k)fluoranthene	58.218	2.0	"	60.000		97.0	63-125			
Benzyl butyl phthalate	54.410	10	"	60.000		90.7	58-128			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
LCS (1905109-BS1)				Prepared: 05/23/19 Analyzed: 06/05/19						
Bis(2-chloro-1-methylethyl) ether	51.701	10	ug/L	60.000		86.2	46-103			
Bis(2-chloroethoxy)methane	52.759	10	"	60.000		87.9	55-113			
bis(2-Chloroethyl) Ether	52.323	10	"	60.000		87.2	48-110			
Bis(2-ethylhexyl) phthalate	52.691	10	"	60.000		87.8	53-123			
Caprolactam	36.358	10	"	60.000		60.6	35-104			
Carbazole	57.133	2.0	"	60.000		95.2	64-116			
Chrysene	50.755	2.0	"	60.000		84.6	63-113			
Dibenz(a,h)anthracene	41.914	2.0	"	60.000		69.9	50-126			
Dibenzofuran	51.869	2.0	"	60.000		86.4	66-104			
Diethyl phthalate	56.063	10	"	60.000		93.4	71-110			
Dimethyl phthalate	55.366	10	"	60.000		92.3	73-107			
Di-n-butylphthalate	50.492	10	"	60.000		84.2	60-120			
Di-n-octylphthalate	51.722	10	"	60.000		86.2	59-127			
Fluoranthene	50.070	2.0	"	60.000		83.4	65-117			
Fluorene	53.780	2.0	"	60.000		89.6	64-110			
Hexachlorobenzene (HCB)	51.831	10	"	60.000		86.4	37-153			
Hexachlorocyclopentadiene (HCCP)	41.341	10	"	60.000		68.9	40-83			
Hexachloroethane	44.938	10	"	60.000		74.9	35-94			
Indeno (1,2,3-cd) pyrene	42.009	2.0	"	60.000		70.0	48-129			
Isophorone	53.664	10	"	60.000		89.4	56-114			
Naphthalene	50.499	2.0	"	60.000		84.2	50-100			
Nitrobenzene	53.577	10	"	60.000		89.3	53-110			
n-Nitroso di-n-Propylamine	52.624	10	"	60.000		87.7	46-113			
n-Nitrosodiphenylamine/Diphenylamine	57.648	10	"	60.000		96.1	55-113			
Pentachlorophenol	56.213	10	"	60.000		93.7	60-116			
Phenanthrene	51.110	2.0	"	60.000		85.2	62-109			
Phenol	48.845	10	"	60.000		81.4	44-98			
Pyrene	49.108	2.0	"	60.000		81.8	60-117			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Matrix Spike (1905109-MS1)		**Source: E192104-12**		Prepared: 05/23/19 Analyzed: 06/05/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	48.390	9.8	ug/L	58.824	U	82.3	22-121			
1,1-Biphenyl	44.411	2.0	"	58.824	U	75.5	23-128			
1,4-Dioxane	38.393	2.0	"	58.824	U	65.3	16-105			
1-Methylnaphthalene	46.478	2.0	"	58.824	U	79.0	50-95			
2,3,4,6-Tetrachlorophenol	44.410	9.8	"	58.824	U	75.5	33-143			
2,4,5-Trichlorophenol	55.016	9.8	"	58.824	U	93.5	58-108			
2,4,6-Trichlorophenol	52.286	9.8	"	58.824	U	88.9	42-113			
2,4-Dichlorophenol	55.020	9.8	"	58.824	U	93.5	35-121			
2,4-Dimethylphenol	48.310	9.8	"	58.824	U	82.1	32-122			
2,4-Dinitrophenol	104.87	20	"	117.65	U	89.1	47-127			
2,4-Dinitrotoluene	48.842	9.8	"	58.824	U	83.0	56-124			
2,6-Dinitrotoluene	51.700	9.8	"	58.824	U	87.9	52-121			
2-Chloronaphthalene	49.265	9.8	"	58.824	U	83.8	42-107			
2-Chlorophenol	48.594	9.8	"	58.824	U	82.6	40-103			
2-Methyl-4,6-dinitrophenol	59.953	9.8	"	58.824	U	102	50-128			
2-Methylnaphthalene	43.069	2.0	"	58.824	U	73.2	53-104			
2-Methylphenol	47.322	9.8	"	58.824	U	80.4	37-107			
2-Nitroaniline	46.576	9.8	"	58.824	U	79.2	47-125			
2-Nitrophenol	54.438	9.8	"	58.824	U	92.5	10-190			
3,3'-Dichlorobenzidine	24.946	9.8	"	58.824	U	42.4	10-136			
3-Nitroaniline	43.238	9.8	"	58.824	U	73.5	42-125			
4-Bromophenyl phenyl ether	52.349	9.8	"	58.824	U	89.0	48-117			
4-Chloro-3-methylphenol	54.112	9.8	"	58.824	U	92.0	44-118			
4-Chloroaniline	32.772	9.8	"	58.824	U	55.7	10-165			QC-1
4-Chlorophenyl phenyl ether	49.871	9.8	"	58.824	U	84.8	47-116			
4-Nitroaniline	43.029	9.8	"	58.824	U	73.2	29-157			
4-Nitrophenol	45.021	9.8	"	58.824	U	76.5	44-130			
Acenaphthene	47.168	2.0	"	58.824	U	80.2	56-109			
Acenaphthylene	44.570	2.0	"	58.824	U	75.8	57-102			
Acetophenone	46.636	9.8	"	58.824	U	79.3	37-107			
Anthracene	46.753	2.0	"	58.824	U	79.5	13-152			
Atrazine	45.973	9.8	"	58.824	U	78.2	10-126			
Benzaldehyde	56.004	9.8	"	58.824	U	95.2	30-125			
Benzo(a)anthracene	47.221	2.0	"	58.824	U	80.3	55-118			
Benzo(a)pyrene	48.905	2.0	"	58.824	U	83.1	60-119			
Benzo(b)fluoranthene	47.573	2.0	"	58.824	U	80.9	10-175			
Benzo(g,h,i)perylene	37.730	2.0	"	58.824	U	64.1	42-107			
Benzo(k)fluoranthene	56.519	2.0	"	58.824	U	96.1	49-128			
Benzyl butyl phthalate	52.765	9.8	"	58.824	U	89.7	53-120			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Matrix Spike (1905109-MS1)		**Source: E192104-12**		Prepared: 05/23/19 Analyzed: 06/05/19						
Bis(2-chloro-1-methylethyl) ether	45.410	9.8	ug/L	58.824	U	77.2	30-103			
Bis(2-chloroethoxy)methane	46.593	9.8	"	58.824	U	79.2	42-101			
bis(2-Chloroethyl) Ether	44.998	9.8	"	58.824	U	76.5	38-100			
Bis(2-ethylhexyl) phthalate	50.206	9.8	"	58.824	U	85.4	48-115			
Caprolactam	29.987	9.8	"	58.824	U	51.0	35-101			
Carbazole	53.336	2.0	"	58.824	U	90.7	36-153			
Chrysene	47.581	2.0	"	58.824	U	80.9	60-112			
Dibenz(a,h)anthracene	40.288	2.0	"	58.824	U	68.5	46-114			
Dibenzofuran	46.321	2.0	"	58.824	U	78.7	57-103			
Diethyl phthalate	49.168	9.8	"	58.824	U	83.6	43-110			
Dimethyl phthalate	49.695	9.8	"	58.824	U	84.5	53-99			
Di-n-butylphthalate	47.664	9.8	"	58.824	U	81.0	50-120			
Di-n-octylphthalate	48.870	9.8	"	58.824	U	83.1	43-131			
Fluoranthene	47.003	2.0	"	58.824	U	79.9	61-118			
Fluorene	48.057	2.0	"	58.824	U	81.7	64-110			
Hexachlorobenzene (HCB)	50.433	9.8	"	58.824	U	85.7	25-103			
Hexachlorocyclopentadiene (HCCP)	42.345	9.8	"	58.824	U	72.0	22-103			
Hexachloroethane	42.199	9.8	"	58.824	U	71.7	32-93			
Indeno (1,2,3-cd) pyrene	39.507	2.0	"	58.824	U	67.2	47-111			
Isophorone	47.024	9.8	"	58.824	U	79.9	46-108			
Naphthalene	44.199	2.0	"	58.824	U	75.1	45-99			
Nitrobenzene	48.009	9.8	"	58.824	U	81.6	32-119			
n-Nitroso di-n-Propylamine	45.787	9.8	"	58.824	U	77.8	35-111			
n-Nitrosodiphenylamine/Diphenylamine	53.132	9.8	"	58.824	U	90.3	48-114			
Pentachlorophenol	51.066	9.8	"	58.824	U	86.8	10-190			
Phenanthrene	46.722	2.0	"	58.824	U	79.4	64-107			
Phenol	41.078	9.8	"	58.824	U	69.8	29-105			
Pyrene	45.747	2.0	"	58.824	U	77.8	58-123			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Matrix Spike Dup (1905109-MSD1)		**Source: E192104-12**		Prepared: 05/23/19 Analyzed: 06/05/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	53.813	9.9	ug/L	59.406	U	90.6	22-121	10.6	33	
1,1-Biphenyl	46.851	2.0	"	59.406	U	78.9	23-128	5.35	26	
1,4-Dioxane	42.253	2.0	"	59.406	U	71.1	16-105	9.57	47	
1-Methylnaphthalene	50.349	2.0	"	59.406	U	84.8	50-95	7.99	47	
2,3,4,6-Tetrachlorophenol	47.072	9.9	"	59.406	U	79.2	33-143	5.82	15	
2,4,5-Trichlorophenol	58.493	9.9	"	59.406	U	98.5	58-108	6.13	22	
2,4,6-Trichlorophenol	55.637	9.9	"	59.406	U	93.7	42-113	6.21	22	
2,4-Dichlorophenol	60.340	9.9	"	59.406	U	102	35-121	9.22	30	
2,4-Dimethylphenol	54.831	9.9	"	59.406	U	92.3	32-122	12.6	29	
2,4-Dinitrophenol	113.92	20	"	118.81	U	95.9	47-127	8.27	18	
2,4-Dinitrotoluene	51.966	9.9	"	59.406	U	87.5	56-124	6.20	13	
2,6-Dinitrotoluene	54.603	9.9	"	59.406	U	91.9	52-121	5.46	16	
2-Chloronaphthalene	51.078	9.9	"	59.406	U	86.0	42-107	3.61	25	
2-Chlorophenol	53.266	9.9	"	59.406	U	89.7	40-103	9.17	36	
2-Methyl-4,6-dinitrophenol	63.917	9.9	"	59.406	U	108	50-128	6.40	17	
2-Methylnaphthalene	46.183	2.0	"	59.406	U	77.7	53-104	6.98	63	
2-Methylphenol	52.930	9.9	"	59.406	U	89.1	37-107	11.2	33	
2-Nitroaniline	48.616	9.9	"	59.406	U	81.8	47-125	4.28	17	
2-Nitrophenol	59.198	9.9	"	59.406	U	99.6	10-190	8.38	80	
3,3'-Dichlorobenzidine	26.927	9.9	"	59.406	U	45.3	10-136	7.64	44	
3-Nitroaniline	46.281	9.9	"	59.406	U	77.9	42-125	6.80	17	
4-Bromophenyl phenyl ether	54.090	9.9	"	59.406	U	91.1	48-117	3.27	20	
4-Chloro-3-methylphenol	59.393	9.9	"	59.406	U	100	44-118	9.31	41	
4-Chloroaniline	33.611	9.9	"	59.406	U	56.6	10-165	2.53	30	QC-1
4-Chlorophenyl phenyl ether	52.015	9.9	"	59.406	U	87.6	47-116	4.21	19	
4-Nitroaniline	45.021	9.9	"	59.406	U	75.8	29-157	4.52	22	
4-Nitrophenol	49.959	9.9	"	59.406	U	84.1	44-130	10.4	21	
Acenaphthene	49.319	2.0	"	59.406	U	83.0	56-109	4.46	21	
Acenaphthylene	47.210	2.0	"	59.406	U	79.5	57-102	5.75	21	
Acetophenone	50.097	9.9	"	59.406	U	84.3	37-107	7.16	31	
Anthracene	49.063	2.0	"	59.406	U	82.6	13-152	4.82	23	
Atrazine	50.284	9.9	"	59.406	U	84.6	10-126	8.96	17	
Benzaldehyde	60.775	9.9	"	59.406	U	102	30-125	8.17	34	
Benzo(a)anthracene	48.993	2.0	"	59.406	U	82.5	55-118	3.68	37	
Benzo(a)pyrene	51.457	2.0	"	59.406	U	86.6	60-119	5.09	21	
Benzo(b)fluoranthene	49.917	2.0	"	59.406	U	84.0	10-175	4.81	100	
Benzo(g,h,i)perylene	40.093	2.0	"	59.406	U	67.5	42-107	6.07	22	
Benzo(k)fluoranthene	57.934	2.0	"	59.406	U	97.5	49-128	2.47	52	
Benzyl butyl phthalate	54.655	9.9	"	59.406	U	92.0	53-120	3.52	18	

Semi Volatile Organics (SVOA) - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
Matrix Spike Dup (1905109-MSD1)	**Source: E192104-12**			Prepared: 05/23/19 Analyzed: 06/05/19						
Bis(2-chloro-1-methylethyl) ether	49.387	9.9	ug/L	59.406	U	83.1	30-103	8.39	36	
Bis(2-chloroethoxy)methane	50.256	9.9	"	59.406	U	84.6	42-101	7.56	32	
bis(2-Chloroethyl) Ether	49.540	9.9	"	59.406	U	83.4	38-100	9.61	36	
Bis(2-ethylhexyl) phthalate	53.034	9.9	"	59.406	U	89.3	48-115	5.48	19	
Caprolactam	36.248	9.9	"	59.406	U	61.0	35-101	18.9	28	
Carbazole	55.893	2.0	"	59.406	U	94.1	36-153	4.68	22	
Chrysene	49.741	2.0	"	59.406	U	83.7	60-112	4.44	42	
Dibenz(a,h)anthracene	42.208	2.0	"	59.406	U	71.0	46-114	4.65	21	
Dibenzofuran	49.165	2.0	"	59.406	U	82.8	57-103	5.96	19	
Diethyl phthalate	52.765	9.9	"	59.406	U	88.8	43-110	7.06	19	
Dimethyl phthalate	52.833	9.9	"	59.406	U	88.9	53-99	6.12	16	
Di-n-butylphthalate	49.975	9.9	"	59.406	U	84.1	50-120	4.73	18	
Di-n-octylphthalate	51.849	9.9	"	59.406	U	87.3	43-131	5.92	19	
Fluoranthene	49.088	2.0	"	59.406	U	82.6	61-118	4.34	15	
Fluorene	50.952	2.0	"	59.406	U	85.8	64-110	5.85	17	
Hexachlorobenzene (HCB)	51.944	9.9	"	59.406	U	87.4	25-103	2.95	39	
Hexachlorocyclopentadiene (HCCP)	40.528	9.9	"	59.406	U	68.2	22-103	4.39	37	
Hexachloroethane	41.982	9.9	"	59.406	U	70.7	32-93	0.515	40	
Indeno (1,2,3-cd) pyrene	41.530	2.0	"	59.406	U	69.9	47-111	4.99	21	
Isophorone	51.469	9.9	"	59.406	U	86.6	46-108	9.03	28	
Naphthalene	48.225	2.0	"	59.406	U	81.2	45-99	8.71	31	
Nitrobenzene	52.092	9.9	"	59.406	U	87.7	32-119	8.16	32	
n-Nitroso di-n-Propylamine	49.167	9.9	"	59.406	U	82.8	35-111	7.12	29	
n-Nitrosodiphenylamine/Diphenylamine	56.193	9.9	"	59.406	U	94.6	48-114	5.60	21	
Pentachlorophenol	54.006	9.9	"	59.406	U	90.9	10-190	5.60	26	
Phenanthrene	49.504	2.0	"	59.406	U	83.3	64-107	5.78	15	
Phenol	45.921	9.9	"	59.406	U	77.3	29-105	11.1	36	
Pyrene	48.139	2.0	"	59.406	U	81.0	58-123	5.09	18	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
MRL Verification (1905109-PS1)				Prepared: 05/23/19 Analyzed: 06/05/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	7.7960	10	ug/L	10.000		78.0	30-122			MRL-2, Q-2, J
1,1-Biphenyl	1.5710	2.0	"	2.0000		78.6	38-113			MRL-2, Q-2, J
1,4-Dioxane	1.3950	2.0	"	2.0000		69.8	13-117			MRL-2, Q-2, J
1-Methylnaphthalene	1.6450	2.0	"	2.0000		82.2	24-134			MRL-2, Q-2, J
2,3,4,6-Tetrachlorophenol	6.4010	10	"	10.000		64.0	49-141			MRL-2, Q-2, J
2,4,5-Trichlorophenol	8.0260	10	"	10.000		80.3	52-129			MRL-2, Q-2, J
2,4,6-Trichlorophenol	7.8990	10	"	10.000		79.0	48-126			MRL-2, Q-2, J
2,4-Dichlorophenol	8.8380	10	"	10.000		88.4	39-127			MRL-2, Q-2, J
2,4-Dimethylphenol	6.7030	10	"	10.000		67.0	26-116			MRL-2, Q-2, J
2,4-Dinitrophenol	14.196	20	"	20.000		71.0	53-140			MRL-2, Q-2, J
2,4-Dinitrotoluene	8.0910	10	"	10.000		80.9	59-126			MRL-2, Q-2, J
2,6-Dinitrotoluene	8.1460	10	"	10.000		81.5	54-125			MRL-2, Q-2, J
2-Chloronaphthalene	8.0760	10	"	10.000		80.8	40-122			MRL-2, Q-2, J
2-Chlorophenol	7.9050	10	"	10.000		79.0	28-123			MRL-2, Q-2, J
2-Methyl-4,6-dinitrophenol	9.0140	10	"	10.000		90.1	50-133			MRL-2, Q-2, J
2-Methylnaphthalene	1.4770	2.0	"	2.0000		73.8	35-120			MRL-2, Q-2, J
2-Methylphenol	7.6630	10	"	10.000		76.6	29-121			MRL-2, Q-2, J
2-Nitroaniline	7.4550	10	"	10.000		74.6	50-132			MRL-2, Q-2, J
2-Nitrophenol	8.5770	10	"	10.000		85.8	36-125			MRL-2, Q-2, J
3,3'-Dichlorobenzidine	5.3690	10	"	10.000		53.7	10-119			MRL-2, Q-2, J
3-Nitroaniline	7.1620	10	"	10.000		71.6	42-125			MRL-2, Q-2, J
4-Bromophenyl phenyl ether	7.9630	10	"	10.000		79.6	41-137			MRL-2, Q-2, J
4-Chloro-3-methylphenol	8.9360	10	"	10.000		89.4	46-126			MRL-2, Q-2, J

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
MRL Verification (1905109-PS1)				Prepared: 05/23/19 Analyzed: 06/05/19						
4-Chloroaniline	5.6350	10	ug/L	10.000		56.4	10-118			MRL-2, Q-2, QC-1, J
4-Chlorophenyl phenyl ether	7.4770	10	"	10.000		74.8	43-135			MRL-2, Q-2, J
4-Nitroaniline	7.7280	10	"	10.000		77.3	32-145			MRL-2, Q-2, J
4-Nitrophenol	7.3630	10	"	10.000		73.6	42-130			MRL-2, Q-2, J
Acenaphthene	1.6180	2.0	"	2.0000		80.9	42-121			MRL-2, Q-2, J
Acenaphthylene	1.6640	2.0	"	2.0000		83.2	44-125			MRL-2, Q-2, J
Acetophenone	7.6520	10	"	10.000		76.5	33-125			MRL-2, Q-2, J
Anthracene	1.6930	2.0	"	2.0000		84.6	42-132			MRL-2, Q-2, J
Atrazine	8.5520	10	"	10.000		85.5	27-148			MRL-2, Q-2, J
Benzaldehyde	8.8120	10	"	10.000		88.1	10-145			MRL-2, Q-2, J
Benzo(a)anthracene	1.7320	2.0	"	2.0000		86.6	44-133			MRL-2, Q-2, J
Benzo(a)pyrene	1.6740	2.0	"	2.0000		83.7	39-148			MRL-2, Q-2, J
Benzo(b)fluoranthene	1.5870	2.0	"	2.0000		79.4	39-148			MRL-2, Q-2, J
Benzo(g,h,i)perylene	1.5260	2.0	"	2.0000		76.3	25-143			MRL-2, Q-2, J
Benzo(k)fluoranthene	1.9480	2.0	"	2.0000		97.4	43-145			MRL-2, Q-2, J
Benzyl butyl phthalate	9.6830	10	"	10.000		96.8	38-148			MRL-2, Q-2, J
Bis(2-chloro-1-methylethyl) ether	7.3470	10	"	10.000		73.5	26-123			MRL-2, Q-2, J
Bis(2-chloroethoxy)methane	7.6740	10	"	10.000		76.7	35-133			MRL-2, Q-2, J
bis(2-Chloroethyl) Ether	7.0510	10	"	10.000		70.5	28-130			MRL-2, Q-2, J
Bis(2-ethylhexyl) phthalate	10.052	10	"	10.000		101	33-143			MRL-2
Caprolactam	4.3010	10	"	10.000		43.0	15-124			MRL-2, Q-2, J
Carbazole	2.0060	2.0	"	2.0000		100	44-136			MRL-2
Chrysene	1.7880	2.0	"	2.0000		89.4	43-133			MRL-2, Q-2, J
Dibenz(a,h)anthracene	1.4120	2.0	"	2.0000		70.6	30-146			MRL-2, Q-2, J
Dibenzofuran	1.6700	2.0	"	2.0000		83.5	46-124			MRL-2, Q-2, J

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905109 - E 3520 LLE										
MRL Verification (1905109-PS1)				Prepared: 05/23/19 Analyzed: 06/05/19						
Diethyl phthalate	8.9410	10	ug/L	10.000		89.4	51-130			MRL-2, Q-2, J
Dimethyl phthalate	8.4790	10	"	10.000		84.8	53-127			MRL-2, Q-2, J
Di-n-butylphthalate	10.379	10	"	10.000		104	40-140			MRL-2
Di-n-octylphthalate	9.3620	10	"	10.000		93.6	39-147			MRL-2, Q-2, J
Fluoranthene	1.8220	2.0	"	2.0000		91.1	45-137			MRL-2, Q-2, J
Fluorene	1.6170	2.0	"	2.0000		80.8	44-130			MRL-2, Q-2, J
Hexachlorobenzene (HCB)	7.4300	10	"	10.000		74.3	17-173			MRL-2, Q-2, J
Hexachlorocyclopentadiene (HCCP)	4.2670	10	"	10.000		42.7	20-103			MRL-2, Q-2, J
Hexachloroethane	5.6680	10	"	10.000		56.7	15-114			MRL-2, Q-2, J
Indeno (1,2,3-cd) pyrene	1.4260	2.0	"	2.0000		71.3	28-149			MRL-2, Q-2, J
Isophorone	7.9750	10	"	10.000		79.8	36-134			MRL-2, Q-2, J
Naphthalene	1.6790	2.0	"	2.0000		84.0	30-120			MRL-2, Q-2, J
Nitrobenzene	7.8660	10	"	10.000		78.7	33-130			MRL-2, Q-2, J
n-Nitroso di-n-Propylamine	7.4380	10	"	10.000		74.4	26-133			MRL-2, Q-2, J
n-Nitrosodiphenylamine/Diphenylamine	8.9090	10	"	10.000		89.1	35-133			MRL-2, Q-2, J
Pentachlorophenol	6.6550	10	"	10.000		66.6	40-126			MRL-2, Q-2, J
Phenanthrene	1.7790	2.0	"	2.0000		89.0	42-129			MRL-2, Q-2, J
Phenol	6.9120	10	"	10.000		69.1	24-118			MRL-2, Q-2, J
Pyrene	1.8900	2.0	"	2.0000		94.5	40-137			MRL-2, Q-2, J
Batch 1905118 - E 3520 LLE										
Blank (1905118-BLK1)				Prepared: 05/28/19 Analyzed: 06/06/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	U	10	ug/L							U
1,1-Biphenyl	U	2.0	"							U
1,4-Dioxane	U	2.0	"							U
1-Methylnaphthalene	U	2.0	"							U
2,3,4,6-Tetrachlorophenol	U	10	"							U

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
Blank (1905118-BLK1)				Prepared: 05/28/19 Analyzed: 06/06/19						
2,4,5-Trichlorophenol	U	10	ug/L							U
2,4,6-Trichlorophenol	U	10	"							U
2,4-Dichlorophenol	U	10	"							U
2,4-Dimethylphenol	U	10	"							U
2,4-Dinitrophenol	U	20	"							U
2,4-Dinitrotoluene	U	10	"							U
2,6-Dinitrotoluene	U	10	"							U
2-Chloronaphthalene	U	10	"							U
2-Chlorophenol	U	10	"							U
2-Methyl-4,6-dinitrophenol	U	10	"							U
2-Methylnaphthalene	U	2.0	"							U
2-Methylphenol	U	10	"							U
2-Nitroaniline	U	10	"							U
2-Nitrophenol	U	10	"							U
3,3'-Dichlorobenzidine	U	10	"							U
3-Nitroaniline	U	10	"							U
4-Bromophenyl phenyl ether	U	10	"							U
4-Chloro-3-methylphenol	U	10	"							U
4-Chloroaniline	U	10	"							QC-1, U
4-Chlorophenyl phenyl ether	U	10	"							U
4-Nitroaniline	U	10	"							U
4-Nitrophenol	U	10	"							U
Acenaphthene	U	2.0	"							U
Acenaphthylene	U	2.0	"							U
Acetophenone	U	10	"							U
Anthracene	U	2.0	"							U
Atrazine	U	10	"							U
Benzaldehyde	U	10	"							U
Benzo(a)anthracene	U	2.0	"							U
Benzo(a)pyrene	U	2.0	"							U
Benzo(b)fluoranthene	U	2.0	"							U
Benzo(g,h,i)perylene	U	2.0	"							U
Benzo(k)fluoranthene	U	2.0	"							U
Benzyl butyl phthalate	U	10	"							U
Bis(2-chloro-1-methylethyl) ether	U	10	"							U
Bis(2-chloroethoxy)methane	U	10	"							U
bis(2-Chloroethyl) Ether	U	10	"							U
Bis(2-ethylhexyl) phthalate	U	10	"							U
Caprolactam	U	10	"							U
Carbazole	U	2.0	"							U

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
Blank (1905118-BLK1)				Prepared: 05/28/19 Analyzed: 06/06/19						
Chrysene	U	2.0	ug/L							U
Dibenz(a,h)anthracene	U	2.0	"							U
Dibenzofuran	U	2.0	"							U
Diethyl phthalate	U	10	"							U
Dimethyl phthalate	U	10	"							U
Di-n-butylphthalate	U	10	"							U
Di-n-octylphthalate	U	10	"							U
Fluoranthene	U	2.0	"							U
Fluorene	U	2.0	"							U
Hexachlorobenzene (HCB)	U	10	"							U
Hexachlorocyclopentadiene (HCCP)	U	10	"							U
Hexachloroethane	U	10	"							U
Indeno (1,2,3-cd) pyrene	U	2.0	"							U
Isophorone	U	10	"							U
Naphthalene	U	2.0	"							U
Nitrobenzene	U	10	"							U
n-Nitroso di-n-Propylamine	U	10	"							U
n-Nitrosodiphenylamine/Diphenylamine	U	10	"							U
Pentachlorophenol	U	10	"							QC-1, U
Phenanthrene	U	2.0	"							U
Phenol	U	10	"							U
Pyrene	U	2.0	"							U
Tentatively Identified Compounds	U	10	"							U
LCS (1905118-BS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	58.712	10	ug/L	60.000		97.9	50-102			
1,1-Biphenyl	49.235	2.0	"	60.000		82.1	58-103			
1,4-Dioxane	45.812	2.0	"	60.000		76.4	33-97			
1-Methylnaphthalene	52.766	2.0	"	60.000		87.9	44-114			
2,3,4,6-Tetrachlorophenol	50.745	10	"	60.000		84.6	69-121			
2,4,5-Trichlorophenol	63.360	10	"	60.000		106	72-109			
2,4,6-Trichlorophenol	60.241	10	"	60.000		100	68-106			
2,4-Dichlorophenol	65.885	10	"	60.000		110	59-107			QL-2
2,4-Dimethylphenol	53.103	10	"	60.000		88.5	46-96			
2,4-Dinitrophenol	121.56	20	"	120.00		101	73-120			
2,4-Dinitrotoluene	55.453	10	"	60.000		92.4	79-106			
2,6-Dinitrotoluene	60.307	10	"	60.000		101	74-105			
2-Chloronaphthalene	54.196	10	"	60.000		90.3	60-102			
2-Chlorophenol	57.342	10	"	60.000		95.6	48-103			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
LCS (1905118-BS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
2-Methyl-4,6-dinitrophenol	67.724	10	ug/L	60.000		113	70-113			
2-Methylnaphthalene	48.542	2.0	"	60.000		80.9	55-100			
2-Methylphenol	57.869	10	"	60.000		96.4	49-101			
2-Nitroaniline	53.975	10	"	60.000		90.0	70-112			
2-Nitrophenol	62.755	10	"	60.000		105	56-105			
3,3'-Dichlorobenzidine	32.850	10	"	60.000		54.8	20-99			
3-Nitroaniline	52.810	10	"	60.000		88.0	62-105			
4-Bromophenyl phenyl ether	57.410	10	"	60.000		95.7	61-117			
4-Chloro-3-methylphenol	64.231	10	"	60.000		107	66-106			QL-2
4-Chloroaniline	36.642	10	"	60.000		61.1	12-98			QC-1
4-Chlorophenyl phenyl ether	54.740	10	"	60.000		91.2	63-115			
4-Nitroaniline	48.227	10	"	60.000		80.4	52-125			
4-Nitrophenol	56.668	10	"	60.000		94.4	62-110			
Acenaphthene	52.300	2.0	"	60.000		87.2	62-101			
Acenaphthylene	48.875	2.0	"	60.000		81.5	64-105			
Acetophenone	53.486	10	"	60.000		89.1	53-105			
Anthracene	51.141	2.0	"	60.000		85.2	62-112			
Atrazine	55.837	10	"	60.000		93.1	47-128			
Benzaldehyde	62.777	10	"	60.000		105	10-125			
Benzo(a)anthracene	50.876	2.0	"	60.000		84.8	64-113			
Benzo(a)pyrene	55.414	2.0	"	60.000		92.4	59-128			
Benzo(b)fluoranthene	54.153	2.0	"	60.000		90.3	59-128			
Benzo(g,h,i)perylene	41.976	2.0	"	60.000		70.0	45-123			
Benzo(k)fluoranthene	61.796	2.0	"	60.000		103	63-125			
Benzyl butyl phthalate	54.189	10	"	60.000		90.3	58-128			
Bis(2-chloro-1-methylethyl) ether	52.332	10	"	60.000		87.2	46-103			
Bis(2-chloroethoxy)methane	54.734	10	"	60.000		91.2	55-113			
bis(2-Chloroethyl) Ether	52.860	10	"	60.000		88.1	48-110			
Bis(2-ethylhexyl) phthalate	51.458	10	"	60.000		85.8	53-123			
Caprolactam	41.041	10	"	60.000		68.4	35-104			
Carbazole	57.394	2.0	"	60.000		95.7	64-116			
Chrysene	51.840	2.0	"	60.000		86.4	63-113			
Dibenz(a,h)anthracene	45.840	2.0	"	60.000		76.4	50-126			
Dibenzofuran	51.230	2.0	"	60.000		85.4	66-104			
Diethyl phthalate	55.145	10	"	60.000		91.9	71-110			
Dimethyl phthalate	56.689	10	"	60.000		94.5	73-107			
Di-n-butylphthalate	50.579	10	"	60.000		84.3	60-120			
Di-n-octylphthalate	49.128	10	"	60.000		81.9	59-127			
Fluoranthene	51.603	2.0	"	60.000		86.0	65-117			
Fluorene	53.588	2.0	"	60.000		89.3	64-110			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
LCS (1905118-BS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
Hexachlorobenzene (HCB)	54.597	10	ug/L	60.000		91.0	37-153			
Hexachlorocyclopentadiene (HCCP)	39.894	10	"	60.000		66.5	40-83			
Hexachloroethane	44.267	10	"	60.000		73.8	35-94			
Indeno (1,2,3-cd) pyrene	44.229	2.0	"	60.000		73.7	48-129			
Isophorone	54.796	10	"	60.000		91.3	56-114			
Naphthalene	48.226	2.0	"	60.000		80.4	50-100			
Nitrobenzene	54.426	10	"	60.000		90.7	53-110			
n-Nitroso di-n-Propylamine	53.308	10	"	60.000		88.8	46-113			
n-Nitrosodiphenylamine/Diphenylamine	58.693	10	"	60.000		97.8	55-113			
Pentachlorophenol	57.048	10	"	60.000		95.1	60-116			QC-1
Phenanthrene	51.307	2.0	"	60.000		85.5	62-109			
Phenol	51.165	10	"	60.000		85.3	44-98			
Pyrene	47.934	2.0	"	60.000		79.9	60-117			
LCS Dup (1905118-BSD1)				Prepared: 05/28/19 Analyzed: 06/06/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	59.906	10	ug/L	60.000		99.8	50-102	2.01	30	
1,1-Biphenyl	48.797	2.0	"	60.000		81.3	58-103	0.894	18	
1,4-Dioxane	46.054	2.0	"	60.000		76.8	33-97	0.527	50	
1-Methylnaphthalene	52.097	2.0	"	60.000		86.8	44-114	1.28	21	
2,3,4,6-Tetrachlorophenol	51.449	10	"	60.000		85.7	69-121	1.38	12	
2,4,5-Trichlorophenol	63.403	10	"	60.000		106	72-109	0.0678	14	
2,4,6-Trichlorophenol	60.294	10	"	60.000		100	68-106	0.0879	16	
2,4-Dichlorophenol	64.671	10	"	60.000		108	59-107	1.86	25	QL-2
2,4-Dimethylphenol	51.910	10	"	60.000		86.5	46-96	2.27	27	
2,4-Dinitrophenol	124.78	20	"	120.00		104	73-120	2.62	17	
2,4-Dinitrotoluene	56.830	10	"	60.000		94.7	79-106	2.45	10	
2,6-Dinitrotoluene	59.795	10	"	60.000		99.7	74-105	0.853	12	
2-Chloronaphthalene	53.079	10	"	60.000		88.5	60-102	2.08	19	
2-Chlorophenol	59.101	10	"	60.000		98.5	48-103	3.02	35	
2-Methyl-4,6-dinitrophenol	67.647	10	"	60.000		113	70-113	0.114	12	
2-Methylnaphthalene	48.067	2.0	"	60.000		80.1	55-100	0.983	22	
2-Methylphenol	59.023	10	"	60.000		98.4	49-101	1.97	33	
2-Nitroaniline	53.327	10	"	60.000		88.9	70-112	1.21	13	
2-Nitrophenol	62.412	10	"	60.000		104	56-105	0.548	28	
3,3'-Dichlorobenzidine	34.348	10	"	60.000		57.2	20-99	4.46	53	
3-Nitroaniline	51.936	10	"	60.000		86.6	62-105	1.67	19	
4-Bromophenyl phenyl ether	53.655	10	"	60.000		89.4	61-117	6.76	12	
4-Chloro-3-methylphenol	63.912	10	"	60.000		107	66-106	0.498	17	QL-2
4-Chloroaniline	33.151	10	"	60.000		55.3	12-98	10.0	49	QC-1

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
LCS Dup (1905118-BSD1)				Prepared: 05/28/19 Analyzed: 06/06/19						
4-Chlorophenyl phenyl ether	53.366	10	ug/L	60.000		88.9	63-115	2.54	17	
4-Nitroaniline	51.325	10	"	60.000		85.5	52-125	6.22	19	
4-Nitrophenol	56.811	10	"	60.000		94.7	62-110	0.252	23	
Acenaphthene	52.231	2.0	"	60.000		87.1	62-101	0.132	14	
Acenaphthylene	48.786	2.0	"	60.000		81.3	64-105	0.182	14	
Acetophenone	55.085	10	"	60.000		91.8	53-105	2.95	27	
Anthracene	50.019	2.0	"	60.000		83.4	62-112	2.22	10	
Atrazine	55.612	10	"	60.000		92.7	47-128	0.404	22	
Benzaldehyde	67.475	10	"	60.000		112	10-125	7.21	28	
Benzo(a)anthracene	49.821	2.0	"	60.000		83.0	64-113	2.10	10	
Benzo(a)pyrene	53.738	2.0	"	60.000		89.6	59-128	3.07	10	
Benzo(b)fluoranthene	52.124	2.0	"	60.000		86.9	59-128	3.82	22	
Benzo(g,h,i)perylene	41.032	2.0	"	60.000		68.4	45-123	2.27	20	
Benzo(k)fluoranthene	59.973	2.0	"	60.000		100	63-125	2.99	19	
Benzyl butyl phthalate	51.348	10	"	60.000		85.6	58-128	5.38	10	
Bis(2-chloro-1-methylethyl) ether	54.213	10	"	60.000		90.4	46-103	3.53	20	
Bis(2-chloroethoxy)methane	53.801	10	"	60.000		89.7	55-113	1.72	25	
bis(2-Chloroethyl) Ether	54.364	10	"	60.000		90.6	48-110	2.81	24	
Bis(2-ethylhexyl) phthalate	47.658	10	"	60.000		79.4	53-123	7.67	39	
Caprolactam	38.206	10	"	60.000		63.7	35-104	7.15	36	
Carbazole	56.676	2.0	"	60.000		94.5	64-116	1.26	14	
Chrysene	50.259	2.0	"	60.000		83.8	63-113	3.10	10	
Dibenz(a,h)anthracene	44.303	2.0	"	60.000		73.8	50-126	3.41	20	
Dibenzofuran	51.215	2.0	"	60.000		85.4	66-104	0.0293	13	
Diethyl phthalate	56.338	10	"	60.000		93.9	71-110	2.14	10	
Dimethyl phthalate	57.021	10	"	60.000		95.0	73-107	0.584	11	
Di-n-butylphthalate	49.035	10	"	60.000		81.7	60-120	3.10	11	
Di-n-octylphthalate	47.248	10	"	60.000		78.7	59-127	3.90	12	
Fluoranthene	50.499	2.0	"	60.000		84.2	65-117	2.16	10	
Fluorene	53.395	2.0	"	60.000		89.0	64-110	0.361	12	
Hexachlorobenzene (HCB)	49.647	10	"	60.000		82.7	37-153	9.50	12	
Hexachlorocyclopentadiene (HCCP)	39.563	10	"	60.000		65.9	40-83	0.833	32	
Hexachloroethane	47.789	10	"	60.000		79.6	35-94	7.65	45	
Indeno (1,2,3-cd) pyrene	43.127	2.0	"	60.000		71.9	48-129	2.52	20	
Isophorone	53.715	10	"	60.000		89.5	56-114	1.99	20	
Naphthalene	49.066	2.0	"	60.000		81.8	50-100	1.73	27	
Nitrobenzene	54.326	10	"	60.000		90.5	53-110	0.184	29	
n-Nitroso di-n-Propylamine	54.098	10	"	60.000		90.2	46-113	1.47	24	
n-Nitrosodiphenylamine/Diphenylamine	56.905	10	"	60.000		94.8	55-113	3.09	10	
Pentachlorophenol	55.060	10	"	60.000		91.8	60-116	3.55	11	QC-1

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
LCS Dup (1905118-BSD1)				Prepared: 05/28/19 Analyzed: 06/06/19						
Phenanthrene	50.409	2.0	ug/L	60.000		84.0	62-109	1.77	10	
Phenol	50.530	10	"	60.000		84.2	44-98	1.25	38	
Pyrene	47.272	2.0	"	60.000		78.8	60-117	1.39	10	
Duplicate (1905118-DUP1)		**Source: E192105-06**		Prepared: 05/28/19 Analyzed: 06/06/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	U	9.8	ug/L		U				200	U
1,1-Biphenyl	U	2.0	"		U				200	U
1,4-Dioxane	U	2.0	"		U				200	U
1-Methylnaphthalene	U	2.0	"		U				200	U
2,3,4,6-Tetrachlorophenol	U	9.8	"		U				200	U
2,4,5-Trichlorophenol	U	9.8	"		U				200	U
2,4,6-Trichlorophenol	U	9.8	"		U				200	U
2,4-Dichlorophenol	U	9.8	"		U				200	U
2,4-Dimethylphenol	U	9.8	"		U				200	U
2,4-Dinitrophenol	U	20	"		U				200	U
2,4-Dinitrotoluene	U	9.8	"		U				200	U
2,6-Dinitrotoluene	U	9.8	"		U				200	U
2-Chloronaphthalene	U	9.8	"		U				200	U
2-Chlorophenol	U	9.8	"		U				200	U
2-Methyl-4,6-dinitrophenol	U	9.8	"		U				200	U
2-Methylnaphthalene	U	2.0	"		U				200	U
2-Methylphenol	U	9.8	"		U				200	U
2-Nitroaniline	U	9.8	"		U				200	U
2-Nitrophenol	U	9.8	"		U				200	U
3,3'-Dichlorobenzidine	U	9.8	"		U				200	U
3-Nitroaniline	U	9.8	"		U				200	U
4-Bromophenyl phenyl ether	U	9.8	"		U				200	U
4-Chloro-3-methylphenol	U	9.8	"		U				200	U
4-Chloroaniline	U	9.8	"		U				200	QC-1, U
4-Chlorophenyl phenyl ether	U	9.8	"		U				200	U
4-Nitroaniline	U	9.8	"		U				200	U
4-Nitrophenol	U	9.8	"		U				200	U
Acenaphthene	U	2.0	"		U				200	U
Acenaphthylene	U	2.0	"		U				200	U
Acetophenone	U	9.8	"		U				200	U
Anthracene	U	2.0	"		U				200	U
Atrazine	U	9.8	"		U				200	U
Benzaldehyde	U	9.8	"		U				200	U
Benzo(a)anthracene	U	2.0	"		U				200	U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
Duplicate (1905118-DUP1)		**Source: E192105-06**		Prepared: 05/28/19 Analyzed: 06/06/19						
Benzo(a)pyrene	U	2.0	ug/L		U				200	U
Benzo(b)fluoranthene	U	2.0	"		U				200	U
Benzo(g,h,i)perylene	U	2.0	"		U				200	U
Benzo(k)fluoranthene	U	2.0	"		U				200	U
Benzyl butyl phthalate	U	9.8	"		U				200	U
Bis(2-chloro-1-methylethyl) ether	U	9.8	"		U				200	U
Bis(2-chloroethoxy)methane	U	9.8	"		U				200	U
bis(2-Chloroethyl) Ether	U	9.8	"		U				200	U
Bis(2-ethylhexyl) phthalate	U	9.8	"		U				200	U
Caprolactam	U	9.8	"		U				200	U
Carbazole	U	2.0	"		U				200	U
Chrysene	U	2.0	"		U				200	U
Dibenz(a,h)anthracene	U	2.0	"		U				200	U
Dibenzofuran	U	2.0	"		U				200	U
Diethyl phthalate	U	9.8	"		U				200	U
Dimethyl phthalate	U	9.8	"		U				200	U
Di-n-butylphthalate	U	9.8	"		U				200	U
Di-n-octylphthalate	U	9.8	"		U				200	U
Fluoranthene	U	2.0	"		U				200	U
Fluorene	U	2.0	"		U				200	U
Hexachlorobenzene (HCB)	U	9.8	"		U				200	U
Hexachlorocyclopentadiene (HCCP)	U	9.8	"		U				200	U
Hexachloroethane	U	9.8	"		U				200	U
Indeno (1,2,3-cd) pyrene	U	2.0	"		U				200	U
Isophorone	U	9.8	"		U				200	U
Naphthalene	U	2.0	"		U				200	U
Nitrobenzene	U	9.8	"		U				200	U
n-Nitroso di-n-Propylamine	U	9.8	"		U				200	U
n-Nitrosodiphenylamine/Diphenylamine	U	9.8	"		U				200	U
Pentachlorophenol	U	9.8	"		U				200	QC-1, U
Phenanthrene	U	2.0	"		U				200	U
Phenol	U	9.8	"		U				200	U
Pyrene	U	2.0	"		U				200	U
Tentatively Identified Compounds	U	10	"		U				200	U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
MRL Verification (1905118-PS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
EPA 8270D										
(3-and/or 4-)Methylphenol	9.0510	10	ug/L	10.000		90.5	30-122			MRL-2, Q-2, J
1,1-Biphenyl	1.7010	2.0	"	2.0000		85.0	38-113			MRL-2, Q-2, J
1,4-Dioxane	1.4640	2.0	"	2.0000		73.2	13-117			MRL-2, Q-2, J
1-Methylnaphthalene	1.8070	2.0	"	2.0000		90.4	24-134			MRL-2, Q-2, J
2,3,4,6-Tetrachlorophenol	7.0950	10	"	10.000		71.0	49-141			MRL-2, Q-2, J
2,4,5-Trichlorophenol	8.8910	10	"	10.000		88.9	52-129			MRL-2, Q-2, J
2,4,6-Trichlorophenol	8.7110	10	"	10.000		87.1	48-126			MRL-2, Q-2, J
2,4-Dichlorophenol	9.9000	10	"	10.000		99.0	39-127			MRL-2, Q-2, J
2,4-Dimethylphenol	7.7370	10	"	10.000		77.4	26-116			MRL-2, Q-2, J
2,4-Dinitrophenol	13.173	20	"	20.000		65.9	53-140			MRL-2, Q-2, J
2,4-Dinitrotoluene	8.8210	10	"	10.000		88.2	59-126			MRL-2, Q-2, J
2,6-Dinitrotoluene	9.2140	10	"	10.000		92.1	54-125			MRL-2, Q-2, J
2-Chloronaphthalene	8.9190	10	"	10.000		89.2	40-122			MRL-2, Q-2, J
2-Chlorophenol	9.0860	10	"	10.000		90.9	28-123			MRL-2, Q-2, J
2-Methyl-4,6-dinitrophenol	8.6430	10	"	10.000		86.4	50-133			MRL-2, Q-2, J
2-Methylnaphthalene	1.6950	2.0	"	2.0000		84.8	35-120			MRL-2, Q-2, J
2-Methylphenol	8.9960	10	"	10.000		90.0	29-121			MRL-2, Q-2, J
2-Nitroaniline	8.3180	10	"	10.000		83.2	50-132			MRL-2, Q-2, J
2-Nitrophenol	9.6170	10	"	10.000		96.2	36-125			MRL-2, Q-2, J
3,3'-Dichlorobenzidine	4.1690	10	"	10.000		41.7	10-119			MRL-2, Q-2, J
3-Nitroaniline	7.6630	10	"	10.000		76.6	42-125			MRL-2, Q-2, J
4-Bromophenyl phenyl ether	8.7100	10	"	10.000		87.1	41-137			MRL-2, Q-2, J
4-Chloro-3-methylphenol	9.9010	10	"	10.000		99.0	46-126			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
MRL Verification (1905118-PS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
4-Chloroaniline	5.3460	10	ug/L	10.000		53.5	10-118			MRL-2, Q-2, QC-1, J
4-Chlorophenyl phenyl ether	8.3110	10	"	10.000		83.1	43-135			MRL-2, Q-2, J
4-Nitroaniline	8.2100	10	"	10.000		82.1	32-145			MRL-2, Q-2, J
4-Nitrophenol	7.7160	10	"	10.000		77.2	42-130			MRL-2, Q-2, J
Acenaphthene	1.7160	2.0	"	2.0000		85.8	42-121			MRL-2, Q-2, J
Acenaphthylene	1.7790	2.0	"	2.0000		89.0	44-125			MRL-2, Q-2, J
Acetophenone	8.6540	10	"	10.000		86.5	33-125			MRL-2, Q-2, J
Anthracene	1.8100	2.0	"	2.0000		90.5	42-132			MRL-2, Q-2, J
Atrazine	8.6870	10	"	10.000		86.9	27-148			MRL-2, Q-2, J
Benzaldehyde	10.620	10	"	10.000		106	10-145			MRL-2
Benzo(a)anthracene	1.7620	2.0	"	2.0000		88.1	44-133			MRL-2, Q-2, J
Benzo(a)pyrene	1.6870	2.0	"	2.0000		84.4	39-148			MRL-2, Q-2, J
Benzo(b)fluoranthene	1.5520	2.0	"	2.0000		77.6	39-148			MRL-2, Q-2, J
Benzo(g,h,i)perylene	1.4280	2.0	"	2.0000		71.4	25-143			MRL-2, Q-2, J
Benzo(k)fluoranthene	1.8740	2.0	"	2.0000		93.7	43-145			MRL-2, Q-2, J
Benzyl butyl phthalate	9.8190	10	"	10.000		98.2	38-148			MRL-2, Q-2, J
Bis(2-chloro-1-methylethyl) ether	8.2170	10	"	10.000		82.2	26-123			MRL-2, Q-2, J
Bis(2-chloroethoxy)methane	8.6360	10	"	10.000		86.4	35-133			MRL-2, Q-2, J
bis(2-Chloroethyl) Ether	7.7960	10	"	10.000		78.0	28-130			MRL-2, Q-2, J
Bis(2-ethylhexyl) phthalate	9.4000	10	"	10.000		94.0	33-143			MRL-2, Q-2, J
Caprolactam	5.4360	10	"	10.000		54.4	15-124			MRL-2, Q-2, J
Carbazole	2.0860	2.0	"	2.0000		104	44-136			MRL-2
Chrysene	1.8320	2.0	"	2.0000		91.6	43-133			MRL-2, Q-2, J
Dibenz(a,h)anthracene	1.3660	2.0	"	2.0000		68.3	30-146			MRL-2, Q-2, J
Dibenzofuran	1.7810	2.0	"	2.0000		89.0	46-124			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905118 - E 3520 LLE										
MRL Verification (1905118-PS1)				Prepared: 05/28/19 Analyzed: 06/06/19						
Diethyl phthalate	9.5420	10	ug/L	10.000		95.4	51-130			MRL-2, Q-2, J
Dimethyl phthalate	9.2550	10	"	10.000		92.6	53-127			MRL-2, Q-2, J
Di-n-butylphthalate	10.796	10	"	10.000		108	40-140			MRL-2
Di-n-octylphthalate	9.7270	10	"	10.000		97.3	39-147			MRL-2, Q-2, J
Fluoranthene	1.8500	2.0	"	2.0000		92.5	45-137			MRL-2, Q-2, J
Fluorene	1.7610	2.0	"	2.0000		88.0	44-130			MRL-2, Q-2, J
Hexachlorobenzene (HCB)	8.3240	10	"	10.000		83.2	17-173			MRL-2, Q-2, J
Hexachlorocyclopentadiene (HCCP)	3.9220	10	"	10.000		39.2	20-103			MRL-2, Q-2, J
Hexachloroethane	6.1970	10	"	10.000		62.0	15-114			MRL-2, Q-2, J
Indeno (1,2,3-cd) pyrene	1.4160	2.0	"	2.0000		70.8	28-149			MRL-2, Q-2, J
Isophorone	8.7790	10	"	10.000		87.8	36-134			MRL-2, Q-2, J
Naphthalene	1.7920	2.0	"	2.0000		89.6	30-120			MRL-2, Q-2, J
Nitrobenzene	8.8760	10	"	10.000		88.8	33-130			MRL-2, Q-2, J
n-Nitroso di-n-Propylamine	8.1660	10	"	10.000		81.7	26-133			MRL-2, Q-2, J
n-Nitrosodiphenylamine/Diphenylamine	9.2030	10	"	10.000		92.0	35-133			MRL-2, Q-2, J
Pentachlorophenol	6.8160	10	"	10.000		68.2	40-126			MRL-2, Q-2, QC-1, J
Phenanthrene	1.8710	2.0	"	2.0000		93.6	42-129			MRL-2, Q-2, J
Phenol	8.0750	10	"	10.000		80.8	24-118			MRL-2, Q-2, J
Pyrene	1.8480	2.0	"	2.0000		92.4	40-137			MRL-2, Q-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard
QL-2	Laboratory Control Spike Recovery greater than method control limits

Appendix D – PCB Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

June 20, 2019

4LSASD-LSB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jason Collum
OCS Analyst

THRU: Jeffrey Hendel, Chief
LSB Organic Chemistry Section

TO: Nathan Barlet

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
PCB Aroclors (PCBA)		
PCB aroclors	EPA 8082 (Water)	ISO

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-CEC-0520	E192104-05	Surface Water	5/20/19 12:30	5/22/19 13:08
P2-CHR-0520	E192104-06	Surface Water	5/21/19 09:30	5/22/19 13:08
P2-CRI-0520	E192104-07	Surface Water	5/20/19 12:00	5/22/19 13:08
P2-CRI-Dup-0520	E192104-08	Surface Water	5/20/19 12:15	5/22/19 13:08
P2-KNC-0520	E192104-11	Surface Water	5/20/19 15:45	5/22/19 13:08
P2-LIR-0520	E192104-12	Surface Water	5/21/19 13:45	5/22/19 13:08
P2-MHC-0520	E192104-13	Surface Water	5/20/19 14:40	5/22/19 13:08
P2-MUC-0520	E192104-14	Surface Water	5/20/19 16:15	5/22/19 13:08
P2-SPC-0520	E192104-15	Surface Water	5/21/19 11:20	5/22/19 13:08
P2-UNT3-0520	E192104-16	Surface Water	5/20/19 18:15	5/22/19 13:08
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520
Station ID: C100
Lab ID: E192104-04
Matrix: Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 14:16	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:16	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/24/19 8:25	6/04/19 14:30	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:30	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/24/19 8:25	6/04/19 14:44	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:44	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/24/19 8:25	6/04/19 14:59	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 14:59	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-CRI-Dup-0520** **Lab ID:** **E192104-08**

Station ID: **CRI** **Matrix:** **Surface Water**

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 15:13	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 15:13	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 16:24	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:24	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12

Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/24/19 8:25	6/04/19 13:47	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 13:47	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13

Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 16:39	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:39	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520
Station ID: MUC

Lab ID: E192104-14
Matrix: Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 16:53	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 16:53	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15

Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.49	U	ug/L	0.49	5/24/19 8:25	6/04/19 17:07	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:07	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520
Station ID: UNT3

Lab ID: E192104-16
Matrix: Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/24/19 8:25	6/04/19 17:22	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/24/19 8:25	6/04/19 17:22	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 21:00	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:00	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520
Station ID: COC
Lab ID: E192105-09
Matrix: Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.52	U	ug/L	0.52	5/29/19 8:56	6/04/19 21:15	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:15	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 21:29	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:29	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-LOB-0520**
Station ID: **LOB**

Lab ID: **E192105-16**
Matrix: **Surface Water**

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.51	U	ug/L	0.51	5/29/19 8:56	6/04/19 21:43	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.26	U	ug/L	0.26	5/29/19 8:56	6/04/19 21:43	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520
Station ID: UNT1

Lab ID: E192105-20
Matrix: Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 21:58	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 21:58	EPA 8082

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PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520
Station ID: UNT2

Lab ID: E192105-21
Matrix: Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 22:12	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:12	EPA 8082

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520
Station ID: WOC

Lab ID: E192105-26
Matrix: Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 22:26	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:26	EPA 8082

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27

Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 22:40	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:40	EPA 8082

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jason Collum

PCB Aroclors

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-BRB-0520**
Station ID: **BRB**

Lab ID: **E192106-02**
Matrix: **Surface Water**

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
12674-11-2	PCB-1016 (Aroclor 1016)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	0.50	U	ug/L	0.50	5/29/19 8:56	6/04/19 22:55	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	0.25	U	ug/L	0.25	5/29/19 8:56	6/04/19 22:55	EPA 8082

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905112 - E 3520 LLE										
Blank (1905112-BLK1)				Prepared: 05/24/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L							U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"							U
PCB-1221 (Aroclor 1221)	U	0.50	"							U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"							U
PCB-1232 (Aroclor 1232)	U	0.25	"							U
PCB-1232 (Aroclor 1232) [2C]	U	0.25	"							U
PCB-1242 (Aroclor 1242)	U	0.25	"							U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"							U
PCB-1248 (Aroclor 1248)	U	0.25	"							U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"							U
PCB-1254 (Aroclor 1254)	U	0.25	"							U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"							U
PCB-1260 (Aroclor 1260)	U	0.25	"							U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"							U
PCB-1262 (Aroclor 1262)	U	0.25	"							U
PCB-1262 (Aroclor 1262) [2C]	U	0.25	"							U
PCB-1268 (Aroclor 1268)	U	0.25	"							U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"							U
LCS (1905112-BS1)				Prepared: 05/24/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L				43.3-123			U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"				43.3-123			U
PCB-1221 (Aroclor 1221)	U	0.50	"				43.3-123			U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"				43.3-123			U
PCB-1232 (Aroclor 1232)	3.4533	0.25	"	5.0000		69.1	43.3-123			
PCB-1232 (Aroclor 1232) [2C]	3.5671	0.25	"	5.0000		71.3	43.3-123			
PCB-1242 (Aroclor 1242)	U	0.25	"				43.3-123			U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"				43.3-123			U
PCB-1248 (Aroclor 1248)	U	0.25	"				43.3-123			U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"				43.3-123			U
PCB-1254 (Aroclor 1254)	U	0.25	"				55.8-118			U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"				55.8-118			U
PCB-1260 (Aroclor 1260)	U	0.25	"				55.8-118			U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"				55.8-118			U
PCB-1262 (Aroclor 1262)	3.4637	0.25	"	5.0000		69.3	55.8-118			
PCB-1262 (Aroclor 1262) [2C]	3.3925	0.25	"	5.0000		67.8	55.8-118			
PCB-1268 (Aroclor 1268)	U	0.25	"				55.8-118			U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"				55.8-118			U

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905112 - E 3520 LLE										
LCS (1905112-BS1)				Prepared: 05/24/19 Analyzed: 06/04/19						
Matrix Spike (1905112-MS1)		**Source: E192104-12**		Prepared: 05/24/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L		U		18-174			U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"		U		18-174			U
PCB-1221 (Aroclor 1221)	U	0.50	"		U		18-174			U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"		U		18-174			U
PCB-1232 (Aroclor 1232)	3.4276	0.25	"	5.0000	U	68.6	18-174			
PCB-1232 (Aroclor 1232) [2C]	3.4444	0.25	"	5.0000	U	68.9	18-174			
PCB-1242 (Aroclor 1242)	U	0.25	"		U		18-174			U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"		U		18-174			U
PCB-1248 (Aroclor 1248)	U	0.25	"		U		18-174			U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"		U		18-174			U
PCB-1254 (Aroclor 1254)	U	0.25	"		U		15.9-165			U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"		U		15.9-165			U
PCB-1260 (Aroclor 1260)	U	0.25	"		U		15.9-165			U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"		U		15.9-165			U
PCB-1262 (Aroclor 1262)	3.4882	0.25	"	5.0000	U	69.8	15.9-165			
PCB-1262 (Aroclor 1262) [2C]	3.3087	0.25	"	5.0000	U	66.2	15.9-165			
PCB-1268 (Aroclor 1268)	U	0.25	"		U		15.9-165			U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"		U		15.9-165			U
Matrix Spike Dup (1905112-MSD1)		**Source: E192104-12**		Prepared: 05/24/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L		U		18-174		38.9	U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"		U		18-174		38.9	U
PCB-1221 (Aroclor 1221)	U	0.50	"		U		18-174		30	U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"		U		18-174		30	U
PCB-1232 (Aroclor 1232)	3.2487	0.25	"	4.9751	U	65.3	18-174	5.36	30	
PCB-1232 (Aroclor 1232) [2C]	3.3217	0.25	"	4.9751	U	66.8	18-174	3.63	30	
PCB-1242 (Aroclor 1242)	U	0.25	"		U		18-174		30	U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"		U		18-174		30	U
PCB-1248 (Aroclor 1248)	U	0.25	"		U		18-174		30	U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"		U		18-174		30	U
PCB-1254 (Aroclor 1254)	U	0.25	"		U		15.9-165		28.7	U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"		U		15.9-165		28.7	U
PCB-1260 (Aroclor 1260)	U	0.25	"		U		15.9-165		28.7	U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"		U		15.9-165		28.7	U
PCB-1262 (Aroclor 1262)	3.4600	0.25	"	4.9751	U	69.5	15.9-165	0.812	28.7	

PCB Aroclors (PCBA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905112 - E 3520 LLE										
Matrix Spike Dup (1905112-MSD1)		**Source: E192104-12**		Prepared: 05/24/19 Analyzed: 06/04/19						
PCB-1262 (Aroclor 1262) [2C]	3.3288	0.25	ug/L	4.9751	U	66.9	15.9-165	0.604	28.7	
PCB-1268 (Aroclor 1268)	U	0.25	"		U		15.9-165		28.7	U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"		U		15.9-165		28.7	U
MRL Verification (1905112-PS1)				Prepared: 05/24/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L				23.3-143			U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"				23.3-143			U
PCB-1221 (Aroclor 1221)	U	0.50	"				23.3-143			U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"				23.3-143			U
PCB-1232 (Aroclor 1232)	0.11118	0.25	"	0.25000		44.5	23.3-143			MRL-2, U
PCB-1232 (Aroclor 1232) [2C]	0.10673	0.25	"	0.25000		42.7	23.3-143			MRL-2, U
PCB-1242 (Aroclor 1242)	U	0.25	"				23.3-143			U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"				23.3-143			U
PCB-1248 (Aroclor 1248)	U	0.25	"				23.3-143			U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"				23.3-143			U
PCB-1254 (Aroclor 1254)	U	0.25	"				35.8-138			U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"				35.8-138			U
PCB-1260 (Aroclor 1260)	U	0.25	"				35.8-138			U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"				35.8-138			U
PCB-1262 (Aroclor 1262)	0.16789	0.25	"	0.25000		67.2	35.8-138			MRL-2, U
PCB-1262 (Aroclor 1262) [2C]	0.16176	0.25	"	0.25000		64.7	35.8-138			MRL-2, U
PCB-1268 (Aroclor 1268)	U	0.25	"				35.8-138			U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"				35.8-138			U
Batch 1905123 - E 3520 LLE										
Blank (1905123-BLK1)				Prepared: 05/29/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L							U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"							U
PCB-1221 (Aroclor 1221)	U	0.50	"							U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"							U
PCB-1232 (Aroclor 1232)	U	0.25	"							U
PCB-1232 (Aroclor 1232) [2C]	U	0.25	"							U
PCB-1242 (Aroclor 1242)	U	0.25	"							U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"							U

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905123 - E 3520 LLE										
Blank (1905123-BLK1)				Prepared: 05/29/19 Analyzed: 06/04/19						
PCB-1248 (Aroclor 1248)	U	0.25	ug/L							U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"							U
PCB-1254 (Aroclor 1254)	U	0.25	"							U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"							U
PCB-1260 (Aroclor 1260)	U	0.25	"							U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"							U
PCB-1262 (Aroclor 1262)	U	0.25	"							U
PCB-1262 (Aroclor 1262) [2C]	U	0.25	"							U
PCB-1268 (Aroclor 1268)	U	0.25	"							U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"							U
LCS (1905123-BS1)				Prepared: 05/29/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L				43.3-123			U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"				43.3-123			U
PCB-1221 (Aroclor 1221)	U	0.50	"				43.3-123			U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"				43.3-123			U
PCB-1232 (Aroclor 1232)	4.1854	0.25	"	5.0000		83.7	43.3-123			
PCB-1232 (Aroclor 1232) [2C]	3.7661	0.25	"	5.0000		75.3	43.3-123			
PCB-1242 (Aroclor 1242)	U	0.25	"				43.3-123			U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"				43.3-123			U
PCB-1248 (Aroclor 1248)	U	0.25	"				43.3-123			U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"				43.3-123			U
PCB-1254 (Aroclor 1254)	U	0.25	"				55.8-118			U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"				55.8-118			U
PCB-1260 (Aroclor 1260)	U	0.25	"				55.8-118			U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"				55.8-118			U
PCB-1262 (Aroclor 1262)	3.8961	0.25	"	5.0000		77.9	55.8-118			
PCB-1262 (Aroclor 1262) [2C]	3.7917	0.25	"	5.0000		75.8	55.8-118			
PCB-1268 (Aroclor 1268)	U	0.25	"				55.8-118			U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"				55.8-118			U

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905123 - E 3520 LLE										
LCS Dup (1905123-BSD1)				Prepared: 05/29/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L				43.3-123		20	U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"				43.3-123		20	U
PCB-1221 (Aroclor 1221)	U	0.50	"				43.3-123		20	U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"				43.3-123		20	U
PCB-1232 (Aroclor 1232)	4.1432	0.25	"	5.0000		82.9	43.3-123	1.01	20	
PCB-1232 (Aroclor 1232) [2C]	4.0796	0.25	"	5.0000		81.6	43.3-123	7.99	20	
PCB-1242 (Aroclor 1242)	U	0.25	"				43.3-123		20	U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"				43.3-123		20	U
PCB-1248 (Aroclor 1248)	U	0.25	"				43.3-123		20	U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"				43.3-123		20	U
PCB-1254 (Aroclor 1254)	U	0.25	"				55.8-118		20	U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"				55.8-118		20	U
PCB-1260 (Aroclor 1260)	U	0.25	"				55.8-118		20	U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"				55.8-118		20	U
PCB-1262 (Aroclor 1262)	4.2356	0.25	"	5.0000		84.7	55.8-118	8.35	20	
PCB-1262 (Aroclor 1262) [2C]	4.0590	0.25	"	5.0000		81.2	55.8-118	6.81	20	
PCB-1268 (Aroclor 1268)	U	0.25	"				55.8-118		20	U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"				55.8-118		20	U
Duplicate (1905123-DUP1)		**Source: E192105-06**		Prepared: 05/29/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L		U				20	U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"		U				20	U
PCB-1221 (Aroclor 1221)	U	0.50	"		U				20	U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"		U				20	U
PCB-1232 (Aroclor 1232)	U	0.25	"		U				20	U
PCB-1232 (Aroclor 1232) [2C]	U	0.25	"		U				20	U
PCB-1242 (Aroclor 1242)	U	0.25	"		U				20	U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"		U				20	U
PCB-1248 (Aroclor 1248)	U	0.25	"		U				20	U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"		U				20	U
PCB-1254 (Aroclor 1254)	U	0.25	"		U				20	U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"		U				20	U
PCB-1260 (Aroclor 1260)	U	0.25	"		U				20	U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"		U				20	U
PCB-1262 (Aroclor 1262)	U	0.25	"		U				20	U
PCB-1262 (Aroclor 1262) [2C]	U	0.25	"		U				20	U
PCB-1268 (Aroclor 1268)	U	0.25	"		U				20	U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"		U				20	U

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905123 - E 3520 LLE										
Duplicate (1905123-DUP1)		**Source: E192105-06**		Prepared: 05/29/19 Analyzed: 06/04/19						
MRL Verification (1905123-PS1)				Prepared: 05/29/19 Analyzed: 06/04/19						
EPA 8082										
PCB-1016 (Aroclor 1016)	U	0.25	ug/L				23.3-143			U
PCB-1016 (Aroclor 1016) [2C]	U	0.25	"				23.3-143			U
PCB-1221 (Aroclor 1221)	U	0.50	"				23.3-143			U
PCB-1221 (Aroclor 1221) [2C]	U	0.50	"				23.3-143			U
PCB-1232 (Aroclor 1232)	0.076910	0.25	"	0.25000		30.8	23.3-143			MRL-2, U
PCB-1232 (Aroclor 1232) [2C]	0.081410	0.25	"	0.25000		32.6	23.3-143			MRL-2, U
PCB-1242 (Aroclor 1242)	U	0.25	"				23.3-143			U
PCB-1242 (Aroclor 1242) [2C]	U	0.25	"				23.3-143			U
PCB-1248 (Aroclor 1248)	U	0.25	"				23.3-143			U
PCB-1248 (Aroclor 1248) [2C]	U	0.25	"				23.3-143			U
PCB-1254 (Aroclor 1254)	U	0.25	"				35.8-138			U
PCB-1254 (Aroclor 1254) [2C]	U	0.25	"				35.8-138			U
PCB-1260 (Aroclor 1260)	U	0.25	"				35.8-138			U
PCB-1260 (Aroclor 1260) [2C]	U	0.25	"				35.8-138			U
PCB-1262 (Aroclor 1262)	0.14427	0.25	"	0.25000		57.7	35.8-138			MRL-2, U
PCB-1262 (Aroclor 1262) [2C]	0.16716	0.25	"	0.25000		66.9	35.8-138			MRL-2, U
PCB-1268 (Aroclor 1268)	U	0.25	"				35.8-138			U
PCB-1268 (Aroclor 1268) [2C]	U	0.25	"				35.8-138			U

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
MRL-2	MRL verification for Non-Potable Water matrix

Appendix E – Total Metals Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

June 26, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Floyd Wellborn
LSB Inorganic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Classical/Nutrient Analyses (CNA)		
Hardness as CaCO3	SM 2340B (Water)	ISO
Total Metals (TMTL)		
Total Metals	EPA 200.8 (Water)	ISO
Total Metals	EPA 6010 (Water)	ISO

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-CEC-0520	E192105-07	Surface Water	5/20/19 12:30	5/23/19 12:54
P2-CHR-0520	E192105-08	Surface Water	5/21/19 09:30	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-CRI-0520	E192105-10	Surface Water	5/20/19 12:00	5/23/19 12:54
P2-CRI-Dup-0520	E192105-11	Surface Water	5/20/19 12:15	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-KNC-0520	E192105-14	Surface Water	5/20/19 15:45	5/23/19 12:54
P2-LIR-0520	E192105-15	Surface Water	5/21/19 13:45	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-MHC-0520	E192105-17	Surface Water	5/20/19 14:40	5/23/19 12:54
P2-MUC-0520	E192105-18	Surface Water	5/20/19 16:15	5/23/19 12:54
P2-SPC-0520	E192105-19	Surface Water	5/21/19 11:20	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-UNT3-0520	E192105-22	Surface Water	5/20/19 18:15	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04

Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7440-39-3	Barium	42		ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7440-70-2	Calcium	14000		ug/L	250	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:01	EPA 6010
7439-89-6	Iron	230		ug/L	100	6/12/19 9:50	6/20/19 12:01	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7439-95-4	Magnesium	3600		ug/L	250	6/12/19 9:50	6/20/19 12:01	EPA 6010
7439-96-5	Manganese	25		ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-09-7	Potassium	1400		ug/L	1000	6/12/19 9:50	6/20/19 12:01	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-23-5	Sodium	4100		ug/L	1000	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-24-6	Strontium	46		ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:09	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:01	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:01	EPA 6010

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-C100-0520** **Lab ID:** **E192104-04**
Station ID: **C100** **Matrix:** **Surface Water**

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	50		mg/L	1.7	6/12/19 9:50	6/20/19 12:01	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7440-38-2	Arsenic	1.1		ug/L	0.50	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7440-39-3	Barium	49		ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7440-70-2	Calcium	35000		ug/L	250	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:04	EPA 6010
7439-89-6	Iron	590		ug/L	100	6/12/19 9:50	6/20/19 12:04	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7439-95-4	Magnesium	4700		ug/L	250	6/12/19 9:50	6/20/19 12:04	EPA 6010
7439-96-5	Manganese	220		ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-09-7	Potassium	2700		ug/L	1000	6/12/19 9:50	6/20/19 12:04	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-23-5	Sodium	4800		ug/L	1000	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-24-6	Strontium	130		ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:14	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:04	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:04	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-BNC-0520** **Lab ID:** **E192105-06**

Station ID: **BNC** **Matrix:** **Surface Water**

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	110		mg/L	1.7	6/12/19 9:50	6/20/19 12:04	SM 2340B

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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192105-07

Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7440-39-3	Barium	24		ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7440-70-2	Calcium	29000		ug/L	250	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:13	EPA 6010
7439-89-6	Iron	200		ug/L	100	6/12/19 9:50	6/20/19 12:13	EPA 6010
7439-92-1	Lead	0.60		ug/L	0.50	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7439-95-4	Magnesium	12000		ug/L	250	6/12/19 9:50	6/20/19 12:13	EPA 6010
7439-96-5	Manganese	36		ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:13	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-23-5	Sodium	2300		ug/L	1000	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-24-6	Strontium	27		ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:32	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:13	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:13	EPA 6010

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-CEC-0520** **Lab ID:** **E192105-07**
Station ID: **CEC** **Matrix:** **Surface Water**

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	120		mg/L	1.7	6/12/19 9:50	6/20/19 12:13	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192105-08

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7440-38-2	Arsenic	0.50		ug/L	0.50	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7440-39-3	Barium	33		ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7440-70-2	Calcium	36000		ug/L	250	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:16	EPA 6010
7439-89-6	Iron	190		ug/L	100	6/12/19 9:50	6/20/19 12:16	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7439-95-4	Magnesium	7400		ug/L	250	6/12/19 9:50	6/20/19 12:16	EPA 6010
7439-96-5	Manganese	76		ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-09-7	Potassium	1300		ug/L	1000	6/12/19 9:50	6/20/19 12:16	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-23-5	Sodium	19000		ug/L	1000	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-24-6	Strontium	59		ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:38	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:16	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:16	EPA 6010

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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-CHR-0520** **Lab ID:** **E192105-08**
Station ID: **CHR** **Matrix:** **Surface Water**

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	120		mg/L	1.7	6/12/19 9:50	6/20/19 12:16	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09

Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7440-38-2	Arsenic	0.64		ug/L	0.50	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7440-39-3	Barium	29		ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7440-70-2	Calcium	24000		ug/L	250	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:19	EPA 6010
7439-89-6	Iron	220		ug/L	100	6/12/19 9:50	6/20/19 12:19	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7439-95-4	Magnesium	5700		ug/L	250	6/12/19 9:50	6/20/19 12:19	EPA 6010
7439-96-5	Manganese	140		ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-09-7	Potassium	2000		ug/L	1000	6/12/19 9:50	6/20/19 12:19	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-23-5	Sodium	2800		ug/L	1000	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-24-6	Strontium	80		ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 12:43	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:19	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:19	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	83		mg/L	1.7	6/12/19 9:50	6/20/19 12:19	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192105-10

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7440-39-3	Barium	45		ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7440-70-2	Calcium	14000		ug/L	250	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:22	EPA 6010
7439-89-6	Iron	180		ug/L	100	6/12/19 9:50	6/20/19 12:22	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7439-95-4	Magnesium	3700		ug/L	250	6/12/19 9:50	6/20/19 12:22	EPA 6010
7439-96-5	Manganese	46		ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-09-7	Potassium	1300		ug/L	1000	6/12/19 9:50	6/20/19 12:22	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-23-5	Sodium	5000		ug/L	1000	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-24-6	Strontium	47		ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:01	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:22	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:22	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-CRI-0520** **Lab ID:** **E192105-10**

Station ID: **CRI** **Matrix:** **Surface Water**

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	50		mg/L	1.7	6/12/19 9:50	6/20/19 12:22	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192105-11

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7440-39-3	Barium	43		ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7440-70-2	Calcium	14000		ug/L	250	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:24	EPA 6010
7439-89-6	Iron	180		ug/L	100	6/12/19 9:50	6/20/19 12:24	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7439-95-4	Magnesium	3600		ug/L	250	6/12/19 9:50	6/20/19 12:24	EPA 6010
7439-96-5	Manganese	43		ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-09-7	Potassium	1300		ug/L	1000	6/12/19 9:50	6/20/19 12:24	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-23-5	Sodium	4800		ug/L	1000	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-24-6	Strontium	46		ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:07	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:24	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:24	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-CRI-Dup-0520** **Lab ID:** **E192105-11**
Station ID: **CRI** **Matrix:** **Surface Water**

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	49		mg/L	1.7	6/12/19 9:50	6/20/19 12:24	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7440-39-3	Barium	47		ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7440-70-2	Calcium	14000		ug/L	250	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:27	EPA 6010
7439-89-6	Iron	110		ug/L	100	6/12/19 9:50	6/20/19 12:27	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7439-95-4	Magnesium	3800		ug/L	250	6/12/19 9:50	6/20/19 12:27	EPA 6010
7439-96-5	Manganese	60		ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-09-7	Potassium	1300		ug/L	1000	6/12/19 9:50	6/20/19 12:27	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-23-5	Sodium	4000		ug/L	1000	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-24-6	Strontium	45		ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:12	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:27	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:27	EPA 6010

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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-G100-0520** **Lab ID:** **E192105-12**

Station ID: **G100** **Matrix:** **Surface Water**

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	51		mg/L	1.7	6/12/19 9:50	6/20/19 12:27	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192105-14

Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7440-39-3	Barium	23		ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7440-70-2	Calcium	24000		ug/L	250	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:30	EPA 6010
7439-89-6	Iron	330		ug/L	100	6/12/19 9:50	6/20/19 12:30	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7439-95-4	Magnesium	3000		ug/L	250	6/12/19 9:50	6/20/19 12:30	EPA 6010
7439-96-5	Manganese	92		ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:30	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-23-5	Sodium	1400		ug/L	1000	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-24-6	Strontium	61		ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:18	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:30	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:30	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-KNC-0520** **Lab ID:** **E192105-14**

Station ID: **KNC** **Matrix:** **Surface Water**

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	72		mg/L	1.7	6/12/19 9:50	6/20/19 12:30	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192105-15
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7440-39-3	Barium	23		ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7440-70-2	Calcium	2600		ug/L	250	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:33	EPA 6010
7439-89-6	Iron	130		ug/L	100	6/12/19 9:50	6/20/19 12:33	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7439-95-4	Magnesium	800		ug/L	250	6/12/19 9:50	6/20/19 12:33	EPA 6010
7439-96-5	Manganese	13		ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:33	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-23-5	Sodium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-24-6	Strontium	12		ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:24	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:33	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:33	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-LIR-0520** **Lab ID:** **E192105-15**

Station ID: **LIR** **Matrix:** **Surface Water**

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	9.8		mg/L	1.7	6/12/19 9:50	6/20/19 12:33	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7440-38-2	Arsenic	0.64		ug/L	0.50	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7440-39-3	Barium	30		ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7440-70-2	Calcium	28000		ug/L	250	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:47	EPA 6010
7439-89-6	Iron	130		ug/L	100	6/12/19 9:50	6/20/19 12:47	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7439-95-4	Magnesium	9900		ug/L	250	6/12/19 9:50	6/20/19 12:47	EPA 6010
7439-96-5	Manganese	36		ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-09-7	Potassium	1100		ug/L	1000	6/12/19 9:50	6/20/19 12:47	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-23-5	Sodium	1800		ug/L	1000	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-24-6	Strontium	67		ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:30	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:47	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:47	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-LOB-0520** **Lab ID:** **E192105-16**

Station ID: **LOB** **Matrix:** **Surface Water**

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	110		mg/L	1.7	6/12/19 9:50	6/20/19 12:47	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192105-17

Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	140		ug/L	100	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7440-39-3	Barium	36		ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7440-70-2	Calcium	34000		ug/L	250	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:50	EPA 6010
7439-89-6	Iron	430		ug/L	100	6/12/19 9:50	6/20/19 12:50	EPA 6010
7439-92-1	Lead	0.96		ug/L	0.50	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7439-95-4	Magnesium	11000		ug/L	250	6/12/19 9:50	6/20/19 12:50	EPA 6010
7439-96-5	Manganese	210		ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:50	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-23-5	Sodium	2300		ug/L	1000	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-24-6	Strontium	42		ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:35	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:50	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:50	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-MHC-0520** **Lab ID:** **E192105-17**

Station ID: **MHC** **Matrix:** **Surface Water**

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	130		mg/L	1.7	6/12/19 9:50	6/20/19 12:50	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192105-18
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100		ug/L	100	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-36-0	Antimony	0.50 U		ug/L	0.50	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7440-38-2	Arsenic	0.59		ug/L	0.50	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7440-39-3	Barium	17		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-41-7	Beryllium	3.0 U		ug/L	3.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-43-9	Cadmium	0.25 U		ug/L	0.25	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7440-70-2	Calcium	28000		ug/L	250	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-47-3	Chromium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-48-4	Cobalt	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-50-8	Copper	10 U		ug/L	10	6/12/19 9:50	6/20/19 12:53	EPA 6010
7439-89-6	Iron	1300		ug/L	100	6/12/19 9:50	6/20/19 12:53	EPA 6010
7439-92-1	Lead	0.50 U		ug/L	0.50	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7439-95-4	Magnesium	5400		ug/L	250	6/12/19 9:50	6/20/19 12:53	EPA 6010
7439-96-5	Manganese	590		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7439-98-7	Molybdenum	10 U		ug/L	10	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-02-0	Nickel	10 U		ug/L	10	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-09-7	Potassium	1000 U		ug/L	1000	6/12/19 9:50	6/20/19 12:53	EPA 6010
7782-49-2	Selenium	1.0 U		ug/L	1.0	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7440-22-4	Silver	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-23-5	Sodium	4500		ug/L	1000	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-24-6	Strontium	140		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-28-0	Thallium	0.50 U		ug/L	0.50	6/12/19 10:12	6/21/19 13:41	EPA 200.8
7440-31-5	Tin	15 U		ug/L	15	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-32-6	Titanium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-62-2	Vanadium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-65-5	Yttrium	3.0 U		ug/L	3.0	6/12/19 9:50	6/20/19 12:53	EPA 6010
7440-66-6	Zinc	10 U		ug/L	10	6/12/19 9:50	6/20/19 12:53	EPA 6010

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-MUC-0520** **Lab ID:** **E192105-18**
Station ID: **MUC** **Matrix:** **Surface Water**

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	91		mg/L	1.7	6/12/19 9:50	6/20/19 12:53	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192105-19
Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7440-39-3	Barium	28		ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7440-70-2	Calcium	30000		ug/L	250	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:56	EPA 6010
7439-89-6	Iron	130		ug/L	100	6/12/19 9:50	6/20/19 12:56	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7439-95-4	Magnesium	9600		ug/L	250	6/12/19 9:50	6/20/19 12:56	EPA 6010
7439-96-5	Manganese	30		ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:56	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-23-5	Sodium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-24-6	Strontium	33		ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:47	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:56	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:56	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-SPC-0520** **Lab ID:** **E192105-19**

Station ID: **SPC** **Matrix:** **Surface Water**

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	110		mg/L	1.7	6/12/19 9:50	6/20/19 12:56	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20

Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	180		ug/L	100	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7440-38-2	Arsenic	0.92		ug/L	0.50	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7440-39-3	Barium	32		ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7440-70-2	Calcium	31000		ug/L	250	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:59	EPA 6010
7439-89-6	Iron	430		ug/L	100	6/12/19 9:50	6/20/19 12:59	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7439-95-4	Magnesium	5100		ug/L	250	6/12/19 9:50	6/20/19 12:59	EPA 6010
7439-96-5	Manganese	140		ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-09-7	Potassium	3100		ug/L	1000	6/12/19 9:50	6/20/19 12:59	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-23-5	Sodium	3200		ug/L	1000	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-24-6	Strontium	110		ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 13:53	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 12:59	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 12:59	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-UNT1-0520** **Lab ID:** **E192105-20**
Station ID: **UNT1** **Matrix:** **Surface Water**

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	98		mg/L	1.7	6/12/19 9:50	6/20/19 12:59	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21

Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7440-39-3	Barium	32		ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7440-70-2	Calcium	13000		ug/L	250	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:02	EPA 6010
7439-89-6	Iron	100	U	ug/L	100	6/12/19 9:50	6/20/19 13:02	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7439-95-4	Magnesium	2800		ug/L	250	6/12/19 9:50	6/20/19 13:02	EPA 6010
7439-96-5	Manganese	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-09-7	Potassium	1300		ug/L	1000	6/12/19 9:50	6/20/19 13:02	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-23-5	Sodium	3500		ug/L	1000	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-24-6	Strontium	69		ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:10	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:02	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:02	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-UNT2-0520** **Lab ID:** **E192105-21**
Station ID: **UNT2** **Matrix:** **Surface Water**

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	43		mg/L	1.7	6/12/19 9:50	6/20/19 13:02	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520
Station ID: UNT3
Lab ID: E192105-22
Matrix: Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	120		ug/L	100	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-36-0	Antimony	0.50 U		ug/L	0.50	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7440-38-2	Arsenic	1.1		ug/L	0.50	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7440-39-3	Barium	40		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-41-7	Beryllium	3.0 U		ug/L	3.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-43-9	Cadmium	0.25 U		ug/L	0.25	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7440-70-2	Calcium	25000		ug/L	250	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-47-3	Chromium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-48-4	Cobalt	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-50-8	Copper	10 U		ug/L	10	6/12/19 9:50	6/20/19 13:05	EPA 6010
7439-89-6	Iron	1900		ug/L	100	6/12/19 9:50	6/20/19 13:05	EPA 6010
7439-92-1	Lead	0.77		ug/L	0.50	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7439-95-4	Magnesium	4300		ug/L	250	6/12/19 9:50	6/20/19 13:05	EPA 6010
7439-96-5	Manganese	1800		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7439-98-7	Molybdenum	10 U		ug/L	10	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-02-0	Nickel	10 U		ug/L	10	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-09-7	Potassium	3800		ug/L	1000	6/12/19 9:50	6/20/19 13:05	EPA 6010
7782-49-2	Selenium	1.0 U		ug/L	1.0	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7440-22-4	Silver	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-23-5	Sodium	4900		ug/L	1000	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-24-6	Strontium	110		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-28-0	Thallium	0.50 U		ug/L	0.50	6/12/19 10:12	6/21/19 14:16	EPA 200.8
7440-31-5	Tin	15 U		ug/L	15	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-32-6	Titanium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-62-2	Vanadium	5.0 U		ug/L	5.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-65-5	Yttrium	3.0 U		ug/L	3.0	6/12/19 9:50	6/20/19 13:05	EPA 6010
7440-66-6	Zinc	10 U		ug/L	10	6/12/19 9:50	6/20/19 13:05	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520
Station ID: UNT3
Lab ID: E192105-22
Matrix: Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	79		mg/L	1.7	6/12/19 9:50	6/20/19 13:03	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7440-39-3	Barium	42		ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7440-70-2	Calcium	7600		ug/L	250	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:07	EPA 6010
7439-89-6	Iron	270		ug/L	100	6/12/19 9:50	6/20/19 13:07	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7439-95-4	Magnesium	1300		ug/L	250	6/12/19 9:50	6/20/19 13:07	EPA 6010
7439-96-5	Manganese	80		ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-09-7	Potassium	1200		ug/L	1000	6/12/19 9:50	6/20/19 13:07	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-23-5	Sodium	1300		ug/L	1000	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-24-6	Strontium	27		ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:22	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:07	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:07	EPA 6010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-WOC-0520** **Lab ID:** **E192105-26**

Station ID: **WOC** **Matrix:** **Surface Water**

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	24		mg/L	1.7	6/12/19 9:50	6/20/19 13:07	SM 2340B

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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27
Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	100	U	ug/L	100	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7440-39-3	Barium	28		ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7440-70-2	Calcium	4100		ug/L	250	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:10	EPA 6010
7439-89-6	Iron	1200		ug/L	100	6/12/19 9:50	6/20/19 13:10	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7439-95-4	Magnesium	1500		ug/L	250	6/12/19 9:50	6/20/19 13:10	EPA 6010
7439-96-5	Manganese	68		ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-09-7	Potassium	1000	U	ug/L	1000	6/12/19 9:50	6/20/19 13:10	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-23-5	Sodium	1200		ug/L	1000	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-24-6	Strontium	18		ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:28	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:10	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:10	EPA 6010

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Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-YEC-0520** **Lab ID:** **E192105-27**

Station ID: **YEC** **Matrix:** **Surface Water**

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	16		mg/L	1.7	6/12/19 9:50	6/20/19 13:10	SM 2340B

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Total Metals

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02

Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7429-90-5	Aluminum	110		ug/L	100	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-36-0	Antimony	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7440-38-2	Arsenic	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7440-39-3	Barium	27		ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-41-7	Beryllium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-43-9	Cadmium	0.25	U	ug/L	0.25	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7440-70-2	Calcium	44000		ug/L	250	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-47-3	Chromium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-48-4	Cobalt	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-50-8	Copper	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:13	EPA 6010
7439-89-6	Iron	200		ug/L	100	6/12/19 9:50	6/20/19 13:13	EPA 6010
7439-92-1	Lead	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7439-95-4	Magnesium	7900		ug/L	250	6/12/19 9:50	6/20/19 13:13	EPA 6010
7439-96-5	Manganese	30		ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7439-98-7	Molybdenum	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-02-0	Nickel	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-09-7	Potassium	1100		ug/L	1000	6/12/19 9:50	6/20/19 13:13	EPA 6010
7782-49-2	Selenium	1.0	U	ug/L	1.0	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7440-22-4	Silver	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-23-5	Sodium	5700		ug/L	1000	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-24-6	Strontium	220		ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-28-0	Thallium	0.50	U	ug/L	0.50	6/12/19 10:12	6/21/19 14:33	EPA 200.8
7440-31-5	Tin	15	U	ug/L	15	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-32-6	Titanium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-62-2	Vanadium	5.0	U	ug/L	5.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-65-5	Yttrium	3.0	U	ug/L	3.0	6/12/19 9:50	6/20/19 13:13	EPA 6010
7440-66-6	Zinc	10	U	ug/L	10	6/12/19 9:50	6/20/19 13:13	EPA 6010

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-BRB-0520** **Lab ID:** **E192106-02**

Station ID: **BRB** **Matrix:** **Surface Water**

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1640424	Hardness (as CaCO3)	140		mg/L	1.7	6/12/19 9:50	6/20/19 13:13	SM 2340B

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
Blank (1906035-BLK1)				Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	U	100	ug/L							U
Barium	U	5.0	"							U
Beryllium	U	3.0	"							U
Calcium	U	250	"							U
Chromium	U	5.0	"							U
Cobalt	U	5.0	"							U
Copper	U	10	"							U
Iron	U	100	"							U
Magnesium	U	250	"							U
Manganese	U	5.0	"							U
Molybdenum	U	10	"							U
Nickel	U	10	"							U
Potassium	U	1000	"							U
Silver	U	5.0	"							U
Sodium	U	1000	"							U
Strontium	U	5.0	"							U
Tin	U	15	"							U
Titanium	U	5.0	"							U
Vanadium	U	5.0	"							U
Yttrium	U	3.0	"							U
Zinc	U	10	"							U
LCS (1906035-BS1)				Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	4797.2	100	ug/L	5000.0		95.9	85-115			
Barium	199.41	5.0	"	200.00		99.7	85-115			
Beryllium	49.482	3.0	"	50.000		99.0	85-115			
Calcium	4964.5	250	"	5000.0		99.3	85-115			
Chromium	196.44	5.0	"	200.00		98.2	85-115			
Cobalt	95.442	5.0	"	100.00		95.4	85-115			
Copper	99.303	10	"	100.00		99.3	85-115			
Iron	5026.8	100	"	5000.0		101	85-115			
Magnesium	5112.9	250	"	5000.0		102	85-115			
Manganese	499.68	5.0	"	500.00		99.9	85-115			
Molybdenum	100.94	10	"	100.00		101	85-115			
Nickel	194.91	10	"	200.00		97.5	85-115			
Potassium	9656.0	1000	"	10000		96.6	85-115			
Silver	94.558	5.0	"	100.00		94.6	85-115			
Sodium	9828.4	1000	"	10000		98.3	85-115			

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
LCS (1906035-BS1)				Prepared: 06/12/19 Analyzed: 06/20/19						
Strontium	100.22	5.0	ug/L	100.00		100	85-115			
Tin	98.624	15	"	100.00		98.6	85-115			
Titanium	99.569	5.0	"	100.00		99.6	85-115			
Vanadium	91.003	5.0	"	100.00		91.0	85-115			
Yttrium	95.961	3.0	"	100.00		96.0	85-115			
Zinc	196.18	10	"	200.00		98.1	85-115			
Matrix Spike (1906035-MS1)		**Source: E192105-06**		Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	4745.4	100	ug/L	5000.0	63.336	93.6	75-125			
Barium	245.34	5.0	"	200.00	49.225	98.1	75-125			
Beryllium	49.266	3.0	"	50.000	U	98.5	75-125			
Calcium	38375	250	"	5000.0	34537	76.8	75-125			
Chromium	192.93	5.0	"	200.00	U	96.5	75-125			
Cobalt	92.915	5.0	"	100.00	0.47343	92.4	75-125			
Copper	98.421	10	"	100.00	U	98.4	75-125			
Iron	5433.5	100	"	5000.0	594.11	96.8	75-125			
Magnesium	9503.4	250	"	5000.0	4749.1	95.1	75-125			
Manganese	705.22	5.0	"	500.00	222.12	96.6	75-125			
Molybdenum	101.39	10	"	100.00	1.6978	99.7	75-125			
Nickel	192.01	10	"	200.00	U	96.0	75-125			
Potassium	12405	1000	"	10000	2681.2	97.2	75-125			
Silver	93.461	5.0	"	100.00	U	93.5	75-125			
Sodium	14267	1000	"	10000	4805.8	94.6	75-125			
Strontium	228.27	5.0	"	100.00	133.87	94.4	75-125			
Tin	97.300	15	"	100.00	U	97.3	75-125			
Titanium	97.866	5.0	"	100.00	0.70843	97.2	75-125			
Vanadium	90.938	5.0	"	100.00	U	90.9	75-125			
Yttrium	94.245	3.0	"	100.00	0.25072	94.0	75-125			
Zinc	192.47	10	"	200.00	2.4380	95.0	75-125			

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
Matrix Spike (1906035-MS2)		**Source: E192106-02**		Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	4971.4	100	ug/L	5000.0	113.86	97.2	75-125			
Barium	230.47	5.0	"	200.00	27.409	102	75-125			
Beryllium	49.555	3.0	"	50.000	U	99.1	75-125			
Calcium	48718	250	"	5000.0	44056	93.3	75-125			
Chromium	200.22	5.0	"	200.00	U	100	75-125			
Cobalt	93.321	5.0	"	100.00	U	93.3	75-125			
Copper	100.29	10	"	100.00	U	100	75-125			
Iron	5132.0	100	"	5000.0	197.67	98.7	75-125			
Magnesium	12919	250	"	5000.0	7912.4	100	75-125			
Manganese	538.38	5.0	"	500.00	30.249	102	75-125			
Molybdenum	103.17	10	"	100.00	1.5303	102	75-125			
Nickel	197.96	10	"	200.00	U	99.0	75-125			
Potassium	10853	1000	"	10000	1052.1	98.0	75-125			
Silver	93.799	5.0	"	100.00	U	93.8	75-125			
Sodium	15433	1000	"	10000	5678.1	97.5	75-125			
Strontium	318.49	5.0	"	100.00	217.05	101	75-125			
Tin	97.944	15	"	100.00	U	97.9	75-125			
Titanium	99.957	5.0	"	100.00	1.0509	98.9	75-125			
Vanadium	92.549	5.0	"	100.00	U	92.5	75-125			
Yttrium	96.527	3.0	"	100.00	U	96.5	75-125			
Zinc	193.16	10	"	200.00	U	96.6	75-125			
Matrix Spike Dup (1906035-MSD1)		**Source: E192105-06**		Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	4951.2	100	ug/L	5000.0	63.336	97.8	75-125	4.24	20	
Barium	255.81	5.0	"	200.00	49.225	103	75-125	4.18	20	
Beryllium	50.434	3.0	"	50.000	U	101	75-125	2.34	20	
Calcium	39296	250	"	5000.0	34537	95.2	75-125	2.37	20	
Chromium	198.99	5.0	"	200.00	U	99.5	75-125	3.09	20	
Cobalt	95.777	5.0	"	100.00	0.47343	95.3	75-125	3.03	20	
Copper	101.11	10	"	100.00	U	101	75-125	2.70	20	
Iron	5649.3	100	"	5000.0	594.11	101	75-125	3.90	20	
Magnesium	9803.5	250	"	5000.0	4749.1	101	75-125	3.11	20	
Manganese	727.75	5.0	"	500.00	222.12	101	75-125	3.14	20	
Molybdenum	104.46	10	"	100.00	1.6978	103	75-125	2.98	20	
Nickel	197.11	10	"	200.00	U	98.6	75-125	2.62	20	
Potassium	12651	1000	"	10000	2681.2	99.7	75-125	1.97	20	
Silver	94.581	5.0	"	100.00	U	94.6	75-125	1.19	20	
Sodium	14585	1000	"	10000	4805.8	97.8	75-125	2.20	20	

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
Matrix Spike Dup (1906035-MSD1)		**Source: E192105-06**		Prepared: 06/12/19 Analyzed: 06/20/19						
Strontium	234.76	5.0	ug/L	100.00	133.87	101	75-125	2.80	20	
Tin	98.986	15	"	100.00	U	99.0	75-125	1.72	20	
Titanium	102.55	5.0	"	100.00	0.70843	102	75-125	4.67	20	
Vanadium	92.632	5.0	"	100.00	U	92.6	75-125	1.84	20	
Yttrium	96.792	3.0	"	100.00	0.25072	96.5	75-125	2.67	20	
Zinc	198.86	10	"	200.00	2.4380	98.2	75-125	3.26	20	
Matrix Spike Dup (1906035-MSD2)		**Source: E192106-02**		Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	5030.6	100	ug/L	5000.0	113.86	98.3	75-125	1.18	20	
Barium	233.10	5.0	"	200.00	27.409	103	75-125	1.14	20	
Beryllium	50.486	3.0	"	50.000	U	101	75-125	1.86	20	
Calcium	49004	250	"	5000.0	44056	99.0	75-125	0.584	20	
Chromium	207.17	5.0	"	200.00	U	104	75-125	3.41	20	
Cobalt	95.355	5.0	"	100.00	U	95.4	75-125	2.16	20	
Copper	99.468	10	"	100.00	U	99.5	75-125	0.828	20	
Iron	5189.6	100	"	5000.0	197.67	99.8	75-125	1.12	20	
Magnesium	12959	250	"	5000.0	7912.4	101	75-125	0.315	20	
Manganese	542.15	5.0	"	500.00	30.249	102	75-125	0.696	20	
Molybdenum	105.52	10	"	100.00	1.5303	104	75-125	2.25	20	
Nickel	203.01	10	"	200.00	U	102	75-125	2.52	20	
Potassium	10981	1000	"	10000	1052.1	99.3	75-125	1.18	20	
Silver	95.494	5.0	"	100.00	U	95.5	75-125	1.79	20	
Sodium	15323	1000	"	10000	5678.1	96.5	75-125	0.712	20	
Strontium	318.57	5.0	"	100.00	217.05	102	75-125	0.0260	20	
Tin	99.873	15	"	100.00	U	99.9	75-125	1.95	20	
Titanium	100.75	5.0	"	100.00	1.0509	99.7	75-125	0.789	20	
Vanadium	94.079	5.0	"	100.00	U	94.1	75-125	1.64	20	
Yttrium	97.611	3.0	"	100.00	U	97.6	75-125	1.12	20	
Zinc	198.15	10	"	200.00	U	99.1	75-125	2.55	20	

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
MRL Verification (1906035-PS1)				Prepared: 06/12/19 Analyzed: 06/20/19						
EPA 6010										
Aluminum	95.334	100	ug/L	100.00		95.3	70-130			MRL-2, U
Barium	4.8538	5.0	"	5.0000		97.1	70-130			MRL-2, U
Beryllium	3.0006	3.0	"	3.0000		100	70-130			MRL-2
Calcium	251.24	250	"	250.00		100	70-130			MRL-2
Chromium	5.2194	5.0	"	5.0000		104	70-130			MRL-2
Cobalt	5.0781	5.0	"	5.0000		102	70-130			MRL-2
Copper	9.7404	10	"	10.000		97.4	70-130			MRL-2, U
Iron	104.93	100	"	100.00		105	70-130			MRL-2
Magnesium	262.25	250	"	250.00		105	70-130			MRL-2
Manganese	5.7127	5.0	"	5.0000		114	70-130			MRL-2
Molybdenum	10.665	10	"	10.000		107	70-130			MRL-2
Nickel	9.0251	10	"	10.000		90.3	70-130			MRL-2, U
Potassium	1001.6	1000	"	1000.0		100	70-130			MRL-2
Silver	4.8957	5.0	"	5.0000		97.9	70-130			MRL-2, U
Sodium	997.47	1000	"	1000.0		99.7	70-130			MRL-2, U
Strontium	4.9881	5.0	"	5.0000		99.8	70-130			MRL-2, U
Tin	14.825	15	"	15.000		98.8	70-130			MRL-2, U
Titanium	5.3993	5.0	"	5.0000		108	70-130			MRL-2
Vanadium	4.7807	5.0	"	5.0000		95.6	70-130			MRL-2, U
Yttrium	3.0521	3.0	"	3.0000		102	70-130			MRL-2
Zinc	10.314	10	"	10.000		103	70-130			MRL-2
Batch 1906036 - M 200.2 Metals Water										
Blank (1906036-BLK1)				Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	U	0.50	ug/L							U
Arsenic	U	0.50	"							U
Cadmium	U	0.25	"							U
Lead	U	0.50	"							U
Selenium	U	1.0	"							U
Thallium	U	0.50	"							U

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906036 - M 200.2 Metals Water										
LCS (1906036-BS1)				Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	195.41	5.0	ug/L	200.00		97.7	85-115			
Arsenic	183.93	5.0	"	200.00		92.0	85-115			
Cadmium	48.061	2.5	"	50.000		96.1	85-115			
Lead	197.34	5.0	"	200.00		98.7	85-115			
Selenium	195.21	10	"	200.00		97.6	85-115			
Thallium	198.52	5.0	"	200.00		99.3	85-115			
Matrix Spike (1906036-MS1)		**Source: E192105-06**		Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	197.37	5.0	ug/L	200.00	U	98.7	70-130			
Arsenic	193.90	5.0	"	200.00	U	97.0	70-130			
Cadmium	47.415	2.5	"	50.000	U	94.8	70-130			
Lead	201.74	5.0	"	200.00	U	101	70-130			
Selenium	186.05	10	"	200.00	U	93.0	70-130			
Thallium	202.17	5.0	"	200.00	U	101	70-130			
Matrix Spike (1906036-MS2)		**Source: E192106-02**		Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	191.66	5.0	ug/L	200.00	U	95.8	70-130			
Arsenic	188.62	5.0	"	200.00	U	94.3	70-130			
Cadmium	47.907	2.5	"	50.000	U	95.8	70-130			
Lead	193.01	5.0	"	200.00	U	96.5	70-130			
Selenium	199.63	10	"	200.00	U	99.8	70-130			
Thallium	195.73	5.0	"	200.00	U	97.9	70-130			
Matrix Spike Dup (1906036-MSD1)		**Source: E192105-06**		Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	201.68	5.0	ug/L	200.00	U	101	70-130	2.16	20	
Arsenic	196.81	5.0	"	200.00	U	98.4	70-130	1.49	20	
Cadmium	50.220	2.5	"	50.000	U	100	70-130	5.75	20	
Lead	204.29	5.0	"	200.00	U	102	70-130	1.26	20	
Selenium	204.27	10	"	200.00	U	102	70-130	9.34	20	
Thallium	202.60	5.0	"	200.00	U	101	70-130	0.212	20	

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906036 - M 200.2 Metals Water										
Matrix Spike Dup (1906036-MSD2)		**Source: E192106-02**		Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	196.65	5.0	ug/L	200.00	U	98.3	70-130	2.57	20	
Arsenic	202.11	5.0	"	200.00	U	101	70-130	6.91	20	
Cadmium	48.620	2.5	"	50.000	U	97.2	70-130	1.48	20	
Lead	199.26	5.0	"	200.00	U	99.6	70-130	3.18	20	
Selenium	201.67	10	"	200.00	U	101	70-130	1.02	20	
Thallium	202.32	5.0	"	200.00	U	101	70-130	3.31	20	
MRL Verification (1906036-PS1)				Prepared: 06/12/19 Analyzed: 06/21/19						
EPA 200.8										
Antimony	0.57493	0.50	ug/L	0.50000		115	65-135			MRL-2
Arsenic	0.98274	0.50	"	1.0000		98.3	65-135			MRL-2
Cadmium	0.41309	0.25	"	0.50000		82.6	65-135			MRL-2
Lead	1.0704	0.50	"	1.0000		107	65-135			MRL-2
Selenium	2.1088	1.0	"	2.0000		105	65-135			MRL-2
Thallium	0.53008	0.50	"	0.50000		106	65-135			MRL-2

Classical/Nutrient Analyses (CNA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906035 - M 200.2 Metals Water										
Blank (1906035-BLK1)				Prepared: 06/12/19 Analyzed: 06/20/19						
SM 2340B										
Hardness (as CaCO3)	U	1.7	mg/L							U

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
MRL-2	MRL verification for Non-Potable Water matrix

Appendix F – Nutrients & Classical Inorganic Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

June 26, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Floyd Wellborn
LSB Inorganic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Classical/Nutrient Analyses (CNA)		
Ammonia as N	EPA 350.1 (Water)	ISO
Ammonia/TKN	EPA 351.2 (Water)	ISO
Classical/Nutrients	EPA 300.0 (Water)	ISO
Nitrate and/or Nitrite	EPA 353.2 (Water)	ISO
Phosphorous	EPA 365.1 (Water)	ISO
Solids	USGS I-1750-85 (Water)	ISO
Solids	USGS I-3765-85 (Water)	ISO

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

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SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-C100-0520	E192104-04	Surface Water	5/21/19 13:30	5/22/19 13:08
P2-CEC-0520	E192104-05	Surface Water	5/20/19 12:30	5/22/19 13:08
P2-CHR-0520	E192104-06	Surface Water	5/21/19 09:30	5/22/19 13:08
P2-CRI-0520	E192104-07	Surface Water	5/20/19 12:00	5/22/19 13:08
P2-CRI-Dup-0520	E192104-08	Surface Water	5/20/19 12:15	5/22/19 13:08
P2-KNC-0520	E192104-11	Surface Water	5/20/19 15:45	5/22/19 13:08
P2-LIR-0520	E192104-12	Surface Water	5/21/19 13:45	5/22/19 13:08
P2-MHC-0520	E192104-13	Surface Water	5/20/19 14:40	5/22/19 13:08
P2-MUC-0520	E192104-14	Surface Water	5/20/19 16:15	5/22/19 13:08
P2-SPC-0520	E192104-15	Surface Water	5/21/19 11:20	5/22/19 13:08
P2-UNT3-0520	E192104-16	Surface Water	5/20/19 18:15	5/22/19 13:08
P2-BNC-0520	E192105-06	Surface Water	5/22/19 12:45	5/23/19 12:54
P2-COC-0520	E192105-09	Surface Water	5/22/19 13:10	5/23/19 12:54
P2-G100-0520	E192105-12	Surface Water	5/22/19 08:15	5/23/19 12:54
P2-LOB-0520	E192105-16	Surface Water	5/22/19 10:25	5/23/19 12:54
P2-UNT1-0520	E192105-20	Surface Water	5/22/19 14:10	5/23/19 12:54
P2-UNT2-0520	E192105-21	Surface Water	5/22/19 16:20	5/23/19 12:54
P2-WOC-0520	E192105-26	Surface Water	5/22/19 10:00	5/23/19 12:54
P2-YEC-0520	E192105-27	Surface Water	5/22/19 11:15	5/23/19 12:54
P2-BRB-0520	E192106-02	Surface Water	5/23/19 11:00	5/23/19 15:59

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
OR-2	MRL verification recovery greater than upper control limits.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-C100-0520 **Lab ID:** E192104-04
Station ID: C100 **Matrix:** Surface Water

Date Collected: 5/21/19 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.42		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	3.9		mg/L	0.10	6/13/19 14:00	6/13/19 22:47	EPA 300.0
14808-79-8	Sulfate as SO4	6.2		mg/L	0.10	6/13/19 14:00	6/13/19 22:47	EPA 300.0
E701177	Nitrate/Nitrite as N	0.064		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.034		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	62		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CEC-0520 **Lab ID:** E192104-05
Station ID: CEC **Matrix:** Surface Water

Date Collected: 5/20/19 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.19	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.9		mg/L	0.10	6/13/19 14:00	6/13/19 23:29	EPA 300.0
14808-79-8	Sulfate as SO4	2.2		mg/L	0.10	6/13/19 14:00	6/13/19 23:29	EPA 300.0
E701177	Nitrate/Nitrite as N	0.51		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.026		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	110		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CHR-0520 **Lab ID:** E192104-06

Station ID: CHR **Matrix:** Surface Water

Date Collected: 5/21/19 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.34		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	7.8		mg/L	0.10	6/13/19 14:00	6/13/19 23:50	EPA 300.0
14808-79-8	Sulfate as SO4	29		mg/L	0.10	6/13/19 14:00	6/13/19 23:50	EPA 300.0
E701177	Nitrate/Nitrite as N	0.59		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.18		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	180		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	10		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-0520 **Lab ID:** E192104-07

Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.26		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	3.6		mg/L	0.10	6/13/19 14:00	6/14/19 0:11	EPA 300.0
14808-79-8	Sulfate as SO4	13		mg/L	0.10	6/13/19 14:00	6/14/19 0:11	EPA 300.0
E701177	Nitrate/Nitrite as N	0.50		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.039		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	83		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	6.6		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-CRI-Dup-0520 **Lab ID:** E192104-08
Station ID: CRI **Matrix:** Surface Water

Date Collected: 5/20/19 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.23	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	3.5		mg/L	0.10	6/13/19 14:00	6/14/19 0:32	EPA 300.0
14808-79-8	Sulfate as SO4	8.0		mg/L	0.10	6/13/19 14:00	6/14/19 0:32	EPA 300.0
E701177	Nitrate/Nitrite as N	0.50		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.039		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	67		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	8.8		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-KNC-0520 **Lab ID:** E192104-11
Station ID: KNC **Matrix:** Surface Water

Date Collected: 5/20/19 15:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.12	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	1.6		mg/L	0.10	6/13/19 14:00	6/14/19 0:53	EPA 300.0
14808-79-8	Sulfate as SO4	3.3		mg/L	0.10	6/13/19 14:00	6/14/19 0:53	EPA 300.0
E701177	Nitrate/Nitrite as N	0.16		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.010		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	81		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-LIR-0520 **Lab ID:** E192104-12
Station ID: LIR **Matrix:** Surface Water

Date Collected: 5/21/19 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.13	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	1.1		mg/L	0.10	6/13/19 14:00	6/14/19 1:14	EPA 300.0
14808-79-8	Sulfate as SO4	3.9		mg/L	0.10	6/13/19 14:00	6/14/19 1:14	EPA 300.0
E701177	Nitrate/Nitrite as N	0.22		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.010	U	mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	50	U	mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MHC-0520 **Lab ID:** E192104-13
Station ID: MHC **Matrix:** Surface Water

Date Collected: 5/20/19 14:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.50		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	3.3		mg/L	0.10	6/13/19 14:00	6/14/19 1:35	EPA 300.0
14808-79-8	Sulfate as SO4	2.0		mg/L	0.10	6/13/19 14:00	6/14/19 1:35	EPA 300.0
E701177	Nitrate/Nitrite as N	0.24		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.034		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	130		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	38		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-MUC-0520 **Lab ID:** E192104-14
Station ID: MUC **Matrix:** Surface Water

Date Collected: 5/20/19 16:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.61		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.1		mg/L	0.10	6/13/19 14:00	6/14/19 1:56	EPA 300.0
14808-79-8	Sulfate as SO4	1.2		mg/L	0.10	6/13/19 14:00	6/14/19 1:56	EPA 300.0
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.023		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	120		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.2		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-SPC-0520 **Lab ID:** E192104-15

Station ID: SPC **Matrix:** Surface Water

Date Collected: 5/21/19 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.12	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	1.4		mg/L	0.10	6/13/19 14:00	6/14/19 2:17	EPA 300.0
14808-79-8	Sulfate as SO4	1.3		mg/L	0.10	6/13/19 14:00	6/14/19 2:17	EPA 300.0
E701177	Nitrate/Nitrite as N	0.42		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.012		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	100		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT3-0520 **Lab ID:** E192104-16
Station ID: UNT3 **Matrix:** Surface Water

Date Collected: 5/20/19 18:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.098		mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.97		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	7.6		mg/L	0.10	6/13/19 14:00	6/14/19 3:42	EPA 300.0
14808-79-8	Sulfate as SO4	2.8		mg/L	0.10	6/13/19 14:00	6/14/19 3:42	EPA 300.0
E701177	Nitrate/Nitrite as N	0.16		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.093		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	130		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	14		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-BNC-0520 **Lab ID:** E192105-06

Station ID: BNC **Matrix:** Surface Water

Date Collected: 5/22/19 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.059		mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.70		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	5.5		mg/L	0.10	6/13/19 14:00	6/14/19 4:24	EPA 300.0
14808-79-8	Sulfate as SO4	2.6		mg/L	0.10	6/13/19 14:00	6/14/19 4:24	EPA 300.0
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.036		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	130		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	7.3		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-COC-0520 **Lab ID:** E192105-09
Station ID: COC **Matrix:** Surface Water

Date Collected: 5/22/19 13:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.54		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	4.7		mg/L	0.10	6/13/19 14:00	6/14/19 4:45	EPA 300.0
14808-79-8	Sulfate as SO4	5.0		mg/L	0.10	6/13/19 14:00	6/14/19 4:45	EPA 300.0
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.046		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	87		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	8.9		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-G100-0520 **Lab ID:** E192105-12
Station ID: G100 **Matrix:** Surface Water

Date Collected: 5/22/19 8:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.40		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	4.1		mg/L	0.10	6/13/19 14:00	6/14/19 5:06	EPA 300.0
14808-79-8	Sulfate as SO4	6.2		mg/L	0.10	6/13/19 14:00	6/14/19 5:06	EPA 300.0
E701177	Nitrate/Nitrite as N	0.17		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.042		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	63		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	10		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-LOB-0520 **Lab ID:** E192105-16
Station ID: LOB **Matrix:** Surface Water

Date Collected: 5/22/19 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050		mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.36		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.9		mg/L	0.10	6/13/19 14:00	6/14/19 5:27	EPA 300.0
14808-79-8	Sulfate as SO4	3.0		mg/L	0.10	6/13/19 14:00	6/14/19 5:27	EPA 300.0
E701177	Nitrate/Nitrite as N	0.16		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.024		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	110		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT1-0520 **Lab ID:** E192105-20
Station ID: UNT1 **Matrix:** Surface Water

Date Collected: 5/22/19 14:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.67		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	7.3		mg/L	0.10	6/13/19 14:00	6/14/19 6:09	EPA 300.0
14808-79-8	Sulfate as SO4	6.5		mg/L	0.10	6/13/19 14:00	6/14/19 6:09	EPA 300.0
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.11		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	120		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	8.7		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-UNT2-0520 **Lab ID:** E192105-21
Station ID: UNT2 **Matrix:** Surface Water

Date Collected: 5/22/19 16:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.22	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	11		mg/L	0.10	6/13/19 14:00	6/14/19 6:30	EPA 300.0
14808-79-8	Sulfate as SO4	2.4		mg/L	0.10	6/13/19 14:00	6/14/19 6:30	EPA 300.0
E701177	Nitrate/Nitrite as N	2.8		mg/L	0.25	6/13/19 11:17	6/17/19 14:30	EPA 353.2
7723-14-0	Total Phosphorus	0.014		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	93		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-WOC-0520 **Lab ID:** E192105-26
Station ID: WOC **Matrix:** Surface Water

Date Collected: 5/22/19 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.24	J, QR-2	mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.1		mg/L	0.10	6/13/19 14:00	6/14/19 6:51	EPA 300.0
14808-79-8	Sulfate as SO4	4.0		mg/L	0.10	6/13/19 14:00	6/14/19 6:51	EPA 300.0
E701177	Nitrate/Nitrite as N	0.59		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.010	U	mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	50	U	mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Project: 19-0253, PFAS Phase 2

Sample ID: P2-YEC-0520 **Lab ID:** E192105-27

Station ID: YEC **Matrix:** Surface Water

Date Collected: 5/22/19 11:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.29		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.0		mg/L	0.10	6/13/19 14:00	6/14/19 7:12	EPA 300.0
14808-79-8	Sulfate as SO4	3.3		mg/L	0.10	6/13/19 14:00	6/14/19 7:12	EPA 300.0
E701177	Nitrate/Nitrite as N	0.28		mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.012		mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	50	U	mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Floyd Wellborn

Classical/Nutrient Analyses

Project: 19-0253, PFAS Phase 2

Sample ID: P2-BRB-0520 **Lab ID:** E192106-02
Station ID: BRB **Matrix:** Surface Water

Date Collected: 5/23/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.050	6/12/19 11:48	6/12/19 15:24	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	0.34		mg/L	0.050	6/13/19 19:29	6/17/19 18:30	EPA 351.2
16887-00-6	Chloride	2.6		mg/L	0.10	6/13/19 14:00	6/14/19 7:54	EPA 300.0
14808-79-8	Sulfate as SO4	16		mg/L	0.10	6/13/19 14:00	6/14/19 7:54	EPA 300.0
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	6/13/19 11:17	6/14/19 16:45	EPA 353.2
7723-14-0	Total Phosphorus	0.010	U	mg/L	0.010	6/14/19 17:59	6/17/19 18:17	EPA 365.1
E1642222	Total Dissolved Solids	170		mg/L	50	5/25/19 12:02	5/28/19 14:28	USGS I-1750-85
E1642818	Total Suspended Solids	12		mg/L	5.0	5/25/19 12:02	5/28/19 14:28	USGS I-3765-85

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Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905117 - C 2540 Solids										
Blank (1905117-BLK1)				Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	U	50	mg/L							U
USGS I-3765-85										
Total Suspended Solids	U	5.0	"							U
LCS (1905117-BS1)				Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	989.00	50	mg/L	1000.0		98.9	75.1-120			
USGS I-3765-85										
Total Suspended Solids	102.30	5.0	"	100.00		102	77.1-110			
LCS Dup (1905117-BSD1)				Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	980.00	50	mg/L	1000.0		98.0	75.1-120	0.914	10	
USGS I-3765-85										
Total Suspended Solids	101.80	5.0	"	100.00		102	77.1-110	0.490	10	
Duplicate (1905117-DUP1)		**Source: E192104-16**		Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	134.00	50	mg/L		126.00			6.15	10	XD-2
USGS I-3765-85										
Total Suspended Solids	15.100	5.0	"		14.200			6.14	10	XD-2
Duplicate (1905117-DUP2)		**Source: E192106-02**		Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	164.00	50	mg/L		169.00			3.00	10	XD-2
USGS I-3765-85										
Total Suspended Solids	11.300	5.0	"		12.200			7.66	10	XD-2
MRL Verification (1905117-PS1)				Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-1750-85										
Total Dissolved Solids	35.000	50	mg/L	50.000		70.0	55.1-140			MRL-2, U

Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905117 - C 2540 Solids										
MRL Verification (1905117-PS1)				Prepared: 05/25/19 Analyzed: 05/28/19						
USGS I-3765-85										
Total Suspended Solids	4.1000	5.0	mg/L	5.0000		82.0	57.1-130			MRL-2, U
Batch 1906038 - C 350.1 Ammonia										
Blank (1906038-BLK1)				Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	U	0.050	mg/L							U
LCS (1906038-BS1)				Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	0.98700	0.050	mg/L	1.0000		98.7	90-110			
Matrix Spike (1906038-MS1)		**Source: E192104-15**		Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	0.99600	0.050	mg/L	1.0000	U	99.6	90-110			
Matrix Spike (1906038-MS2)		**Source: E192106-02**		Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	1.0070	0.050	mg/L	1.0000	U	101	90-110			
Matrix Spike Dup (1906038-MSD1)		**Source: E192104-15**		Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	0.99900	0.050	mg/L	1.0000	U	99.9	90-110	0.301	10	
Matrix Spike Dup (1906038-MSD2)		**Source: E192106-02**		Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	1.0100	0.050	mg/L	1.0000	U	101	90-110	0.297	10	
MRL Verification (1906038-PS1)				Prepared & Analyzed: 06/12/19						
EPA 350.1										
Ammonia as N	0.048000	0.050	mg/L	0.050000		96.0	70-130			MRL-2, U
Batch 1906044 - C 353.2 NO3-NO2										
Blank (1906044-BLK1)				Prepared: 06/13/19 Analyzed: 06/14/19						

Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906044 - C 353.2 NO3-NO2										
Blank (1906044-BLK1)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	U	0.050	mg/L							U
Blank (1906044-BLK2)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 353.2										
Nitrate/Nitrite as N	U	0.050	mg/L							U
LCS (1906044-BS1)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.50340	0.050	mg/L	0.49950		101	90-110			
LCS (1906044-BS2)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 353.2										
Nitrate/Nitrite as N	0.50770	0.050	mg/L	0.49950		102	90-110			
Matrix Spike (1906044-MS1)		**Source: E192104-08**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.98030	0.050	mg/L	0.49950	0.50190	95.8	90-110			
Matrix Spike (1906044-MS2)		**Source: E192105-16**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.63000	0.050	mg/L	0.49950	0.15580	94.9	90-110			
Matrix Spike Dup (1906044-MSD1)		**Source: E192104-08**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.99330	0.050	mg/L	0.49950	0.50190	98.4	90-110	1.32	10	
Matrix Spike Dup (1906044-MSD2)		**Source: E192105-16**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.64130	0.050	mg/L	0.49950	0.15580	97.2	90-110	1.78	10	
MRL Verification (1906044-PS1)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 353.2										
Nitrate/Nitrite as N	0.045900	0.050	mg/L	0.050000		91.8	70-130			MRL-2, U
MRL Verification (1906044-PS2)				Prepared: 06/13/19 Analyzed: 06/17/19						

Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906044 - C 353.2 NO3-NO2										
MRL Verification (1906044-PS2)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 353.2										
Nitrate/Nitrite as N	0.046400	0.050	mg/L	0.050000		92.8	70-130			MRL-2, U
Batch 1906046 - C 300.0 Ion Chromat										
Blank (1906046-BLK1)				Prepared & Analyzed: 06/13/19						
EPA 300.0										
Chloride	U	0.10	mg/L							U
Sulfate as SO4	U	0.10	"							U
Blank (1906046-BLK2)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 300.0										
Chloride	U	0.10	mg/L							U
Sulfate as SO4	U	0.10	"							U
Blank (1906046-BLK3)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 300.0										
Chloride	U	0.10	mg/L							U
Sulfate as SO4	U	0.10	"							U
Blank (1906046-BLK4)				Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 300.0										
Chloride	U	0.10	mg/L							U
Sulfate as SO4	U	0.10	"							U
Blank (1906046-BLK5)				Prepared: 06/13/19 Analyzed: 06/19/19						
EPA 300.0										
Chloride	U	0.10	mg/L							U
Sulfate as SO4	U	0.10	"							U
LCS (1906046-BS1)				Prepared & Analyzed: 06/13/19						
EPA 300.0										
Chloride	498.45	0.10	mg/L	500.00		99.7	90-110			
Sulfate as SO4	499.10	0.10	"	500.00		99.8	90-110			

Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906046 - C 300.0 Ion Chromat										
LCS Dup (1906046-BSD1)				Prepared & Analyzed: 06/13/19						
EPA 300.0										
Chloride	498.46	0.10	mg/L	500.00		99.7	90-110	0.00140	10	
Sulfate as SO4	500.38	0.10	"	500.00		100	90-110	0.257	10	
Matrix Spike (1906046-MS1)		**Source: E192104-04**		Prepared: 06/13/19 Analyzed: 06/19/19						
EPA 300.0										
Chloride	204.21	0.10	mg/L	200.00	3.9430	100	90-110			
Sulfate as SO4	208.71	0.10	"	200.00	6.2230	101	90-110			
Matrix Spike (1906046-MS2)		**Source: E192105-16**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 300.0										
Chloride	204.06	0.10	mg/L	200.00	2.8690	101	90-110			
Sulfate as SO4	205.79	0.10	"	200.00	2.9960	101	90-110			
Matrix Spike (1906046-MS3)		**Source: E192204-01**		Prepared: 06/13/19 Analyzed: 06/14/19						
EPA 300.0										
Chloride	202.59	0.10	mg/L	200.00		101	90-110			
Sulfate as SO4	205.54	0.10	"	200.00	1.2340	102	90-110			
MRL Verification (1906046-PS1)				Prepared & Analyzed: 06/13/19						
EPA 300.0										
Chloride	0.092000	0.10	mg/L	0.10000		92.0	70-130			MRL-2, U
Sulfate as SO4	0.086000	0.10	"	0.10000		86.0	70-130			MRL-2, U
Batch 1906047 - C 351.2 TKN										
Blank (1906047-BLK1)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	U	0.050	mg/L							U
LCS (1906047-BS1)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	1.2160	0.050	mg/L	1.1650		104	90-110			

Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906047 - C 351.2 TKN										
Matrix Spike (1906047-MS1)		**Source: E192104-12**		Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	1.0810	0.050	mg/L	1.0000	0.13100	95.0	90-110			
Matrix Spike (1906047-MS2)		**Source: E192105-26**		Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	1.1770	0.050	mg/L	1.0000	0.23600	94.1	90-110			
Matrix Spike Dup (1906047-MSD1)		**Source: E192104-12**		Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	1.1230	0.050	mg/L	1.0000	0.13100	99.2	90-110	3.81	20	
Matrix Spike Dup (1906047-MSD2)		**Source: E192105-26**		Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	1.1720	0.050	mg/L	1.0000	0.23600	93.6	90-110	0.426	20	
MRL Verification (1906047-PS1)				Prepared: 06/13/19 Analyzed: 06/17/19						
EPA 351.2										
Total Kjeldahl Nitrogen	0.069000	0.050	mg/L	0.050000		138	70-130			MRL-2, QR-2
Batch 1906048 - C 365.1 TPhos										
Blank (1906048-BLK1)				Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	U	0.010	mg/L							U
LCS (1906048-BS1)				Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.38690	0.010	mg/L	0.36750		105	90-110			
Matrix Spike (1906048-MS1)		**Source: E192104-14**		Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.53400	0.010	mg/L	0.50250	0.023000	102	90-110			
Matrix Spike (1906048-MS2)		**Source: E192105-27**		Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.52190	0.010	mg/L	0.50250	0.012000	101	90-110			

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Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906048 - C 365.1 TPhos										
Matrix Spike Dup (1906048-MSD1)		**Source: E192104-14**		Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.54170	0.010	mg/L	0.50250	0.023000	103	90-110	1.43	10	
Matrix Spike Dup (1906048-MSD2)		**Source: E192105-27**		Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.52520	0.010	mg/L	0.50250	0.012000	102	90-110	0.630	10	
MRL Verification (1906048-PS1)				Prepared: 06/14/19 Analyzed: 06/17/19						
EPA 365.1										
Total Phosphorus	0.0094000	0.010	mg/L	0.010000		94.0	70-130			MRL-2, U

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
MRL-2	MRL verification for Non-Potable Water matrix
QR-2	MRL verification recovery greater than upper control limits.
XD-2	Duplicate results less than 5X MRL

Appendix G – PFAS Equipment Decon Quality Control Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

July 23, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jeffrey Hendel
LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
PFAS	ASBPROC-800PFAS (Water)	

Report Narrative for Work Order: E191807

The compounds Perflurotetradecanoic acid (PFTeDA) and N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (N-EtFOSAA) were not reported with the original data since these two compounds do not meet the QA requirements of LSB's quality system. The project requested that these two compounds to be reported anyway. As a result, the data for the work order E191807 are being re-reported to contain results for these two compounds. The results for these two compounds are qualified "Y-2" (use for screening purposes only) since they do not meet LSB quality system requirements. The end user of the data should use the results for these two compounds with caution since the laboratory cannot defend the reported result. This report replaces E191807 SVOA FINAL 06 06 19 1652.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

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D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
P2-050319-buck-blank	E191807-01	Equipment Rinse Blank	5/3/19 11:30	5/3/19 13:00
P2-050319-tube-blank	E191807-02	Equipment Rinse Blank	5/3/19 11:35	5/3/19 13:00

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
QC-1	Analyte concentration low in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.
X-1	Non-target analyte
Y-2	Data should be limited to screening purposes only

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-050319-buck-blank
Lab ID: E191807-01
Station ID:
Matrix: Equipment Rinse Blank

Date Collected: 5/3/19 11:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
27619-97-2	6:2FTS	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
39108-34-4	8:2FTS	41	U	ng/L	41	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
754-91-6	FOSA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
13252-13-6	HFPO-DA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	170	U, Y-2	ng/L	170	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	170	U	ng/L	170	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
375-22-4	PFBA	42	U, J, QC-1	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
375-73-5	PFBS	38	U	ng/L	38	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
335-76-2	PFDA	170	U	ng/L	170	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
307-55-1	PFDoA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
335-77-3	PFDS	41	U	ng/L	41	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
375-85-9	PFHpA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
375-92-8	PFHpS	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
307-24-4	PFHxA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
355-46-4	PFHxS	39	U	ng/L	39	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
375-95-1	PFNA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
68259-12-1	PFNS	41	U	ng/L	41	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
335-67-1	PFOA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
1763-23-1	PFOS	39	U	ng/L	39	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-050319-buck-blank** **Lab ID:** **E191807-01**

Station ID: **Matrix:** **Equipment Rinse Blank**

Date Collected: 5/3/19 11:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
2706-91-4	PFPeS	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
376-06-7	PFTeDA	170	U, R, QL-1, X-1, Y-2	ng/L	170	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
72629-94-8	PFTrDA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS
2058-94-8	PFUdA	42	U	ng/L	42	5/07/19 17:50	5/08/19 16:28	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: P2-050319-tube-blank
Lab ID: E191807-02
Station ID:
Matrix: Equipment Rinse Blank

Date Collected: 5/3/19 11:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	38	U	ng/L	38	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
39108-34-4	8:2FTS	39	U	ng/L	39	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
375-22-4	PFBA	40	U, J, QC-1	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
375-73-5	PFBS	36	U	ng/L	36	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
335-77-3	PFDS	39	U	ng/L	39	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
375-85-9	PFHpA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
355-46-4	PFHxS	37	U	ng/L	37	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
68259-12-1	PFNS	39	U	ng/L	39	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
1763-23-1	PFOS	37	U	ng/L	37	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS

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D.A.R.T. Id: 19-0253
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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: **P2-050319-tube-blank** **Lab ID:** **E191807-02**

Station ID: **Matrix:** **Equipment Rinse Blank**

Date Collected: 5/3/19 11:35

CAS Number	*Analyte*	*Results*	*Qualifiers*	*Units*	*MRL*	*Prepared*	*Analyzed*	*Method*
2706-90-3	PFPeA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
2706-91-4	PFPeS	38	U	ng/L	38	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, R, QL-1, X-1, Y-2	ng/L	160	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/07/19 17:50	5/08/19 16:47	ASBPROC-800PFAS

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905033 - S PFC										
Blank (1905033-BLK1)				Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							QC-1, U
PFBS	U	35	"							U
PFDA	U	160	"							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, R, X-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
Blank (1905033-BLK2)				Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							QC-1, U
PFBS	U	35	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905033 - S PFC										
Blank (1905033-BLK2)				Prepared: 05/07/19 Analyzed: 05/08/19						
PFDA	U	160	ng/L							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QL-1, R, X-1, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
LCS (1905033-BS1)				Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	348	37	ng/L	374.00		93.2	67.1-125			
6:2FTS	302	38	"	380.00		79.4	49.2-134			
8:2FTS	284	38	"	384.00		74.0	56.4-136			
FOSA	323	40	"	400.00		80.7	57.7-148			
HFPO-DA	311	40	"	400.00		77.8	51.1-127			
N-EtFOSAA	333	160	"	400.00		83.2	47.2-185.3			Y-2
N-MeFOSAA	352	160	"	400.00		88.1	43.2-178			
PFBA	355	40	"	400.00		88.7	67.9-118			QC-1
PFBS	305	35	"	354.00		86.1	68.2-118			
PFDA	372	160	"	400.00		93.1	47.4-162			
PFDoA	326	40	"	400.00		81.4	56.5-155			QC-2
PFDS	321	39	"	386.00		83.1	35.1-168			
PFHpA	361	40	"	400.00		90.2	72.8-116			
PFHpS	339	38	"	380.00		89.1	59.7-130			
PFHxA	363	40	"	400.00		90.8	62.6-127			
PFHxS	321	36	"	364.80		88.0	69.5-117			
PFNA	358	40	"	400.00		89.5	64.1-128.4			
PFNS	316	38	"	384.00		82.4	63.3-126			
PFOA	357	40	"	400.00		89.2	66.7-122			

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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905033 - S PFC										
LCS (1905033-BS1)				Prepared: 05/07/19 Analyzed: 05/08/19						
PFOS	287	37	ng/L	370.20		77.4	70.4-122			
PFPeA	351	40	"	400.00		87.8	72-115			
PFPeS	337	38	"	376.00		89.7	69-117			
PFTeDA	127	160	"	400.00		31.8	42.9-179			QL-1, R, X-1, Y-2, J
PFTrDA	231	40	"	400.00		57.6	32.2-215			QC-2
PFUdA	330	40	"	400.00		82.6	65.8-142			
Matrix Spike (1905033-MS1)		**Source: E191801-02**		Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	276	37	ng/L	354.84	U	77.7	70-133			
6:2FTS	340	38	"	360.53	U	94.4	58-143			
8:2FTS	326	38	"	364.33	U	89.4	66-126			
FOSA	298	40	"	379.51	U	78.4	61-138			
HFPO-DA	277	40	"	379.51	U	72.9	45-129			
N-EtFOSAA	377	160	"	379.51	U	99.3	50-168			Y-2
N-MeFOSAA	403	160	"	379.51	U	106	47-169			
PFBA	246	40	"	379.51	U	64.8	60-141			QC-1
PFBS	279	35	"	335.86	U	83.2	62-135			
PFDA	386	160	"	379.51	U	102	53-156			
PFDoA	494	40	"	379.51	U	130	30-172			QC-2
PFDS	355	39	"	366.22	U	97.0	44-151			
PFHpA	338	40	"	379.51	U	89.0	75-122			
PFHpS	313	38	"	360.53	U	86.8	66-132			
PFHxA	335	40	"	379.51	U	88.3	64-138			
PFHxS	279	36	"	346.11	U	80.5	72-124			
PFNA	372	40	"	379.51	U	98.1	72-129			
PFNS	313	38	"	364.33	U	85.8	61-126			
PFOA	351	40	"	379.51	U	92.4	74-127			
PFOS	323	37	"	351.23	U	92.1	68-132			
PFPeA	308	40	"	379.51	U	81.2	75-122			
PFPeS	286	38	"	356.74	U	80.3	72-122			
PFTeDA	322	160	"	379.51	U	84.7	10-194			R, X-1, Y-2
PFTrDA	666	40	"	379.51	U	175	10-193			QC-2
PFUdA	405	40	"	379.51	U	107	44-164			

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905033 - S PFC										
Matrix Spike Dup (1905033-MSD1)	**Source: E191801-02**			Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	290	37	ng/L	354.17	U	81.9	70-133	5.07	34	
6:2FTS	327	38	"	359.85	U	90.8	58-143	4.05	45	
8:2FTS	320	38	"	363.64	U	87.9	66-126	1.85	56	
FOSA	291	40	"	378.79	U	76.9	61-138	2.08	39	
HFPO-DA	285	40	"	378.79	U	75.2	45-129	2.91	57	
N-EtFOSAA	376	160	"	378.79	U	99.2	50-168	0.230	53	Y-2
N-MeFOSAA	436	160	"	378.79	U	115	47-169	7.69	65	
PFBA	245	40	"	378.79	U	64.6	60-141	0.534	37	QC-1
PFBS	269	35	"	335.23	U	80.1	62-135	3.94	32	
PFDA	367	160	"	378.79	U	96.9	53-156	5.05	57	
PFDoA	493	40	"	378.79	U	130	30-172	0.277	56	QC-2
PFDS	349	38	"	365.53	U	95.3	44-151	1.93	66	
PFHpA	343	40	"	378.79	U	90.4	75-122	1.45	26	
PFHpS	314	38	"	359.85	U	87.4	66-132	0.509	28	
PFHxA	340	40	"	378.79	U	89.9	64-138	1.61	42	
PFHxS	281	36	"	345.45	U	81.4	72-124	0.932	32	
PFNA	373	40	"	378.79	U	98.6	72-129	0.292	31	
PFNS	314	38	"	363.64	U	86.4	61-126	0.503	35	
PFOA	343	40	"	378.79	U	90.6	74-127	2.12	32	
PFOS	306	37	"	350.57	U	87.2	68-132	5.60	37	
PFPeA	318	40	"	378.79	U	84.1	75-122	3.25	27	
PFPeS	290	37	"	356.06	U	81.5	72-122	1.35	29	
PFTeDA	294	160	"	378.79	U	77.6	10-194	8.95	111	R, X-1, Y-2
PFTrDA	641	40	"	378.79	U	169	10-193	3.90	106	QC-2
PFUdA	403	40	"	378.79	U	107	44-164	0.431	48	
MRL Verification (1905033-PS1)				Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
4:2FTS	18.9	37	ng/L	37.400		50.4	47.1-145			MRL-2, Q-2, J
6:2FTS	16.5	38	"	38.000		43.3	29.2-154			MRL-2, Q-2, J
8:2FTS	25.4	38	"	38.400		66.1	36.4-156			MRL-2, Q-2, J
FOSA	30.1	40	"	40.000		75.4	37.7-168			MRL-2, Q-2, J
HFPO-DA	42.6	40	"	40.000		106	31.3-147			MRL-2
PFBA	36.2	40	"	40.000		90.5	47.9-138			MRL-2, Q-2, QC-1, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905033 - S PFC										
MRL Verification (1905033-PS1)				Prepared: 05/07/19 Analyzed: 05/08/19						
PFBS	22.5	35	ng/L	35.400		63.4	48.2-138			MRL-2, Q-2, J
PFDoA	27.7	40	"	40.000		69.2	36.5-175			MRL-2, Q-2, QC-2, J
PFDS	28.4	39	"	38.600		73.6	15.1-188			MRL-2, Q-2, J
PFHpA	31.7	40	"	40.000		79.2	52.8-136			MRL-2, Q-2, J
PFHpS	29.2	38	"	38.000		77.0	39.7-150			MRL-2, Q-2, J
PFHxA	25.7	40	"	40.000		64.1	42.6-147			MRL-2, Q-2, J
PFHxS	30.8	36	"	36.480		84.5	49.5-138			MRL-2, Q-2, J
PFNA	31.6	40	"	40.000		79.0	44.1-148			MRL-2, Q-2, J
PFNS	27.6	38	"	38.400		72.0	43.3-146			MRL-2, Q-2, J
PFOA	31.1	40	"	40.000		77.9	46.7-142			MRL-2, Q-2, J
PFOS	30.4	37	"	37.020		82.1	50.4-142			MRL-2, Q-2, J
PFPeA	27.1	40	"	40.000		67.9	52-135			MRL-2, Q-2, J
PFPeS	28.0	38	"	37.600		74.5	49-137			MRL-2, Q-2, J
PFTrDA	37.0	40	"	40.000		92.6	12.2-235			MRL-2, Q-2, QC-2, J
PFUdA	31.3	40	"	40.000		78.2	45.8-162			MRL-2, Q-2, J
MRL Verification (1905033-PS2)				Prepared: 05/07/19 Analyzed: 05/08/19						
ASBPROC-800PFAS										
N-EtFOSAA	77.0	160	ng/L	160.00		48.1	27.2-205			MRL-2, Q-2, Y-2, J
N-MeFOSAA	105	160	"	160.00		65.7	23.2-198			MRL-2, Q-2, J
PFDA	123	160	"	160.00		77.1	27.4-182			MRL-2, Q-2, J
PFTeDA	79.6	160	"	160.00		49.7	22.9-199			MRL-2, Q-2, R, X-1, Y-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QC-1	Analyte concentration low in continuing calibration verification standard
QC-2	Analyte concentration high in continuing calibration verification standard
QL-1	Laboratory Control Spike Recovery less than method control limits
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and consic
X-1	Non-target analyte
Y-2	Data should be limited to screening purposes only

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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July 24, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 19-0253, PFAS Phase 2

FROM: Jeffrey Hendel
LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Nathan Barlet

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA)		
PFAS	ASBPROC-800PFAS (Water)	

Report Narrative for Work Order: E192007

The compounds Perflurotetradecanoic acid (PFTeDA) and N-ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (N-EtFOSAA) were not reported with the original data since these two compounds do not meet the QA requirements of LSB's quality system. The project requested that these two compounds to be reported anyway. As a result, the data for the work order E192007 are being re-reported to contain results for these two compounds. The results for these two compounds are qualified "Y-2" (use for screening purposes only) since they do not meet LSB quality system requirements. The end user of the data should use the results for these two compounds with caution since the laboratory cannot defend the reported result. This report replaces E1920077 SVOA FINAL 05 24 19 1705.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 19-0253
Project: 19-0253, PFAS Phase 2 - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0253, PFAS Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
19-0253-glovelg-blank-051419	E192007-01	Equipment Rinse Blank	5/14/19 11:00	5/14/19 13:08
19-0253-glovexl-bank-051419	E192007-02	Equipment Rinse Blank	5/14/19 10:50	5/14/19 13:08

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
QC-5	Calibration check standard less than method control limits.
QL-1	Laboratory Control Spike Recovery less than method control limits
QS-3	Surrogate recovery is lower than established control limits.
Y-2	Data should be limited to screening purposes only

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at:
http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: 19-0253-glovelg-blank-051419 **Lab ID:** E192007-01

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/14/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
375-85-9	PFHpA	40	U, J, QL-1	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
1763-23-1	PFOS	37	U, J, QL-1	ng/L	37	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: 19-0253-glovelg-blank-051419 **Lab ID:** E192007-01

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/14/19 11:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40 U	J, QL-1, QS-3	ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
2706-91-4	PFPeS	37 U		ng/L	37	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
376-06-7	PFTeDA	160 U	J, QC-5, QL-1, Y-2	ng/L	160	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
72629-94-8	PFTrDA	40 U		ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS
2058-94-8	PFUdA	40 U		ng/L	40	5/14/19 15:05	5/15/19 14:05	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: 19-0253-glovexl-bank-051419 **Lab ID:** E192007-02

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/14/19 10:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
757124-72-4	4:2FTS	37	U	ng/L	37	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
27619-97-2	6:2FTS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
39108-34-4	8:2FTS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
754-91-6	FOSA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
13252-13-6	HFPO-DA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
2991-50-6	N-EtFOSAA	160	U, Y-2	ng/L	160	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
2355-31-9	N-MeFOSAA	160	U	ng/L	160	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
375-22-4	PFBA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
375-73-5	PFBS	35	U	ng/L	35	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
335-76-2	PFDA	160	U	ng/L	160	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
307-55-1	PFDoA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
335-77-3	PFDS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
375-85-9	PFHpA	40	U, J, QL-1	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
375-92-8	PFHpS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
307-24-4	PFHxA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
355-46-4	PFHxS	36	U	ng/L	36	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
375-95-1	PFNA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
68259-12-1	PFNS	38	U	ng/L	38	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
335-67-1	PFOA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
1763-23-1	PFOS	37	U, J, QL-1	ng/L	37	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS

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Semi Volatile Organics

Project: 19-0253, PFAS Phase 2

Sample ID: 19-0253-glovexl-bank-051419 **Lab ID:** E192007-02

Station ID: **Matrix:** Equipment Rinse Blank

Date Collected: 5/14/19 10:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
2706-90-3	PFPeA	40	U, J, QL-1	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
2706-91-4	PFPeS	37	U	ng/L	37	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
376-06-7	PFTeDA	160	U, J, QL-1, Y-2, QC-5	ng/L	160	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
72629-94-8	PFTrDA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS
2058-94-8	PFUdA	40	U	ng/L	40	5/14/19 15:05	5/15/19 14:24	ASBPROC-800PFAS

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905065 - S PFC										
Blank (1905065-BLK1)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U
PFDoA	U	40	"							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QC-5, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
Blank (1905065-BLK2)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L							U
6:2FTS	U	38	"							U
8:2FTS	U	38	"							U
FOSA	U	40	"							U
HFPO-DA	U	40	"							U
N-EtFOSAA	U	160	"							Y-2, U
N-MeFOSAA	U	160	"							U
PFBA	U	40	"							U
PFBS	U	35	"							U
PFDA	U	160	"							U

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905065 - S PFC										
Blank (1905065-BLK2)				Prepared: 05/14/19 Analyzed: 05/15/19						
PFDoA	U	40	ng/L							U
PFDS	U	39	"							U
PFHpA	U	40	"							U
PFHpS	U	38	"							U
PFHxA	U	40	"							U
PFHxS	U	36	"							U
PFNA	U	40	"							U
PFNS	U	38	"							U
PFOA	U	40	"							U
PFOS	U	37	"							U
PFPeA	U	40	"							U
PFPeS	U	38	"							U
PFTeDA	U	160	"							QC-5, Y-2, U
PFTrDA	U	40	"							U
PFUdA	U	40	"							U
LCS (1905065-BS1)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	281	37	ng/L	374.00		75.2	67.1-125			
6:2FTS	277	38	"	380.00		72.9	49.2-134			
8:2FTS	281	38	"	384.00		73.2	56.4-136			
FOSA	247	40	"	400.00		61.7	57.7-148			
HFPO-DA	336	40	"	400.00		84.0	51.1-127			
N-EtFOSAA	288	160	"	400.00		72.1	47.2-185.3			Y-2
N-MeFOSAA	266	160	"	400.00		66.4	43.2-178			
PFBA	293	40	"	400.00		73.3	67.9-118			
PFBS	264	35	"	354.00		74.7	68.2-118			
PFDA	291	160	"	400.00		72.7	47.4-162			
PFDoA	252	40	"	400.00		63.1	56.5-155			
PFDS	253	39	"	386.00		65.7	35.1-168			
PFHpA	286	40	"	400.00		71.6	72.8-116			QL-1
PFHpS	277	38	"	380.00		73.0	59.7-130			
PFHxA	289	40	"	400.00		72.2	62.6-127			
PFHxS	267	36	"	364.80		73.2	69.5-117			
PFNA	301	40	"	400.00		75.2	64.1-128.4			
PFNS	270	38	"	384.00		70.2	63.3-126			
PFOA	290	40	"	400.00		72.5	66.7-122			
PFOS	281	37	"	370.20		75.8	70.4-122			
PFPeA	268	40	"	400.00		66.9	72-115			QL-1

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905065 - S PFC										
LCS (1905065-BS1)				Prepared: 05/14/19 Analyzed: 05/15/19						
PFPeS	276	38	ng/L	376.00		73.4	69-117			
PFTeDA	135	160	"	400.00		33.6	42.9-179			QC-5, QL-1, Y-2, J
PFTrDA	193	40	"	400.00		48.3	32.2-215			
PFUdA	285	40	"	400.00		71.2	65.8-142			
LCS Dup (1905065-BSD1)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	285	37	ng/L	374.00		76.1	67.1-125	1.18	30	
6:2FTS	297	38	"	380.00		78.2	49.2-134	7.08	30	
8:2FTS	253	38	"	384.00		65.8	56.4-136	10.7	30	
FOSA	288	40	"	400.00		72.0	57.7-148	15.3	30	
HFPO-DA	354	40	"	400.00		88.4	51.1-127	5.07	30	
N-EtFOSAA	311	160	"	400.00		77.8	47.2-185.3	7.60	30	Y-2
N-MeFOSAA	302	160	"	400.00		75.6	43.2-178	12.8	30	
PFBA	326	40	"	400.00		81.6	67.9-118	10.8	30	
PFBS	291	35	"	354.00		82.1	68.2-118	9.47	30	
PFDA	309	160	"	400.00		77.3	47.4-162	6.16	30	
PFDoA	253	40	"	400.00		63.2	56.5-155	0.160	30	
PFDS	278	39	"	386.00		72.1	35.1-168	9.33	30	
PFHpA	318	40	"	400.00		79.4	72.8-116	10.4	30	
PFHpS	290	38	"	380.00		76.3	59.7-130	4.39	30	
PFHxA	319	40	"	400.00		79.8	62.6-127	9.94	30	
PFHxS	298	36	"	364.80		81.6	69.5-117	10.8	30	
PFNA	310	40	"	400.00		77.5	64.1-128.4	2.95	30	
PFNS	284	38	"	384.00		74.0	63.3-126	5.26	30	
PFOA	312	40	"	400.00		77.9	66.7-122	7.18	30	
PFOS	260	37	"	370.20		70.2	70.4-122	7.76	30	QL-1
PFPeA	294	40	"	400.00		73.6	72-115	9.57	30	
PFPeS	305	38	"	376.00		81.2	69-117	10.1	30	
PFTeDA	142	160	"	400.00		35.5	42.9-179	5.28	30	QC-5, QL-1, Y-2, J
PFTrDA	206	40	"	400.00		51.5	32.2-215	6.31	30	
PFUdA	300	40	"	400.00		74.9	65.8-142	5.10	30	

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905065 - S PFC										
Duplicate (1905065-DUP1)		**Source: E191601-01**		Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	U	37	ng/L		U				200	H-7, J, U
6:2FTS	U	38	"		U				200	H-7, J, U
8:2FTS	U	38	"		U				200	H-7, J, U
FOSA	U	40	"		U				200	H-7, J, U
HFPO-DA	422	40	"		423			0.426	200	H-7, J
N-EtFOSAA	U	160	"		U				200	H-7, J, Y-2, U
PFBA	U	40	"		U				200	H-7, J, U
PFBS	U	35	"		U				200	H-7, J, U
PFDoA	U	40	"		U				200	H-7, J, U
PFHpA	U	40	"		U				200	H-7, J, QL-1, U
PFHpS	U	38	"		U				200	H-7, J, U
PFHxA	U	40	"		U				200	H-7, J, U
PFHxS	U	36	"		U				200	H-7, J, U
PFNA	U	40	"		U				200	H-7, J, U
PFOA	U	40	"		U				200	H-7, J, U
PFPeA	U	40	"		U				200	H-7, J, QL-1, U
PFPeS	U	37	"		U				200	H-7, J, U
PFTeDA	U	160	"		U				200	H-7, J, QC-5, QL-1, Y-2, U
PFTrDA	U	40	"		U				200	H-7, J, U
MRL Verification (1905065-PS1)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
4:2FTS	35.4	37	ng/L	37.400		94.6	47.1-145			MRL-2, Q-2, J
6:2FTS	24.8	38	"	38.000		65.2	29.2-154			MRL-2, Q-2, J
8:2FTS	31.8	38	"	38.400		82.7	36.4-156			MRL-2, Q-2, J
FOSA	29.3	40	"	40.000		73.2	37.7-168			MRL-2, Q-2, J
HFPO-DA	35.8	40	"	40.000		89.6	31.3-147			MRL-2, Q-2, J
N-EtFOSAA	25.5	160	"	40.000		63.8	27.2-205			MRL-2, Q-2, Y-2, J
PFBA	38.5	40	"	40.000		96.2	47.9-138			MRL-2, Q-2, J

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1905065 - S PFC										
MRL Verification (1905065-PS1)				Prepared: 05/14/19 Analyzed: 05/15/19						
PFBS	27.8	35	ng/L	35.400		78.6	48.2-138			MRL-2, Q-2, J
PFDoA	32.9	40	"	40.000		82.3	36.5-175			Q-2, MRL-2, J
PFDS	32.7	39	"	38.600		84.7	15.1-188			MRL-2, Q-2, J
PFHpA	29.3	40	"	40.000		73.2	52.8-136			MRL-2, Q-2, J
PFHpS	27.9	38	"	38.000		73.5	39.7-150			MRL-2, Q-2, J
PFHxA	28.1	40	"	40.000		70.4	42.6-147			MRL-2, Q-2, J
PFHxS	32.6	36	"	36.480		89.3	49.5-138			MRL-2, Q-2, J
PFNA	31.4	40	"	40.000		78.6	44.1-148			MRL-2, Q-2, J
PFNS	26.8	38	"	38.400		69.8	43.3-146			MRL-2, Q-2, J
PFOA	32.8	40	"	40.000		81.9	46.7-142			MRL-2, Q-2, J
PFOS	21.6	37	"	37.020		58.2	50.4-142			MRL-2, Q-2, J
PFPeA	20.9	40	"	40.000		52.2	52-135			MRL-2, Q-2, J
PFPeS	25.8	38	"	37.600		68.6	49-137			MRL-2, Q-2, J
PFTrDA	44.1	40	"	40.000		110	12.2-235			MRL-2
PFUdA	32.1	40	"	40.000		80.3	45.8-162			MRL-2, Q-2, J
MRL Verification (1905065-PS2)				Prepared: 05/14/19 Analyzed: 05/15/19						
ASBPROC-800PFAS										
N-EtFOSAA	83.2	160	ng/L	160.00		52.0	27.2-205			MRL-2, Q-2, Y-2, J
N-MeFOSAA	86.1	160	"	160.00		53.8	23.2-198			MRL-2, Q-2, J
PFDA	111	160	"	160.00		69.1	27.4-182			MRL-2, Q-2, J
PFTeDA	90.1	160	"	160.00		56.3	22.9-199			MRL-2, Q-2, QC-5, Y-2, J

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
H-7	Recommended preparation holding time exceeded
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QC-5	Calibration check standard less than method control limits.
QL-1	Laboratory Control Spike Recovery less than method control limits
Y-2	Data should be limited to screening purposes only

END OF DOCUMENT

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